

# TAXATION OF FINANCIAL ASSETS IN THE SEACEN COUNTRIES

Edited by  
*Mulyana Soekarni*



The SEACEN Centre  
Kuala Lumpur, Malaysia

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

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## FOREWORD

Tax policies are crucial to economic growth as the structure of the tax system affects the allocation of resources and distribution of income. This is particularly the case for taxes on financial assets such as those imposed on the interest rates of savings and time deposits. Since these taxes are common among the SEACEN countries, it would be useful to examine empirically the impact of such tax measures on the real economic activities especially savings. In addition, it would be helpful to document and make cross-country comparison on the various taxes on financial assets in the SEACEN countries.

The report of the study on the Taxation of Financial Assets in the SEACEN Countries is divided into two Parts. Part I covers the regional analysis of taxation of financial assets in SEACEN countries. It describes an overview of the tax system in the SEACEN countries and the impacts of taxation of financial assets on savings. Part II consists of country chapters outlining the individual country's tax system, taxation of financial assets and the results of empirical investigation on how these taxes impact the respective country's savings function. The countries participating are Indonesia, Korea, Malaysia, Nepal, Philippines, Singapore, Sri Lanka and Thailand.

This collaborative research project was implemented by Mr. Mulyana Soekarni, Senior Economist seconded from Bank Indonesia, in collaboration with researchers from eight member banks and monetary authorities. As in the previous collaborative projects, Mr. Mulyana was responsible for the methodology and coverage of the country chapters as well as undertaking regional analysis as reported in Part I of the report. During the course of implementation, he also mounted two workshops, one to finalise the methodology and the other to finalise the country chapters. In preparing the overview part, Mr. Mulyana received invaluable comments from Mrs. Kanaengnid T. Quah, Economist of the Centre. Meanwhile, the research assistance was provided by Mrs. Jami'ah Jaffar, Senior Research Associate. The manuscript of the country chapters were finalised by Ms. Haslina bt. Muda and Ms. Jayanthi Devi, Senior Clerical Officers.

The Centre wishes to express its appreciation to participating central banks and country researchers for their invaluable contributions to the project. However, the views expressed in this research report are

those of authors and do not necessarily reflect the views of the member banks and monetary authorities or that of The SEACEN Centre.

Mr. Ismail Abu Bakar  
Officer-in-Charge  
The SEACEN Centre

Kuala Lumpur  
November 1996

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## EXECUTIVE SUMMARY

Tax policies are crucial to economic growth as the structure of the tax system affects the allocation of resources and distribution of income. This is particularly the case for taxes on financial assets such as those imposed on the interest rates of savings and time deposits. The study was conducted to document and make cross-country comparison on the various taxes on financial assets in the SEACEN countries and to examine empirically the impact of tax on deposits on the real economic activities especially savings.

Generally speaking, the tax systems in the SEACEN countries are comparable, comprising mainly of income tax, land/property tax, sales tax or VAT, import and export duties and others. The most common form of tax on financial assets is tax on interest earned from deposits. The rates imposed, however, differ across countries. In Indonesia the rate is 15 percent while in Malaysia and Nepal the rates are 5 percent. For Korea the rates range between 0 to 16.5 percent. In the Philippines, the similar tax rate for individuals is 20 percent. In Singapore, it is treated as part of their income tax which ranges from 2 percent on the first \$5000 to 28 percent for income exceeding \$400,000. Meanwhile, Thailand imposes a flat rate of 15 percent tax rate.

As for tax on capital gains, only Indonesia and Philippines impose such a tax. In Indonesia, the tax is calculated on the basis of transaction values, while in the Philippines, the tax rates are either 10 or 20 percent depending on whether net capital gain is lower or higher than P100,000. With regard to dividend tax, Indonesian residents are subject to a 15 percent tax, while non-residents are taxed at a 20 percent rate. In Korea the similar tax rate is 16.5 percent. As for Malaysia, dividend derived from shares and equity are subject to corporate income tax. Although these incomes are rebated for dividend which has been taxed at source. In Sri Lanka, all dividends liable for tax are subject to a 15 percent withholding tax. In the case of Thailand, there is a flat rate for the tax on dividend at 10 percent.

Based on the empirical study, the finding seems to be more conclusive with respect to income. It is generally the case that higher income will lead to higher savings in most of the SEACEN countries. As for the impact of taxation on financial assets on savings, however, the evidence seem to vary across countries. Using the after-taxed inter-

est rate as a proxy variable, it is found that in Korea, and the Philippines the substitution effect plays a dominant role. In Singapore, on the other hand, the income effect seems to exert a stronger influence on savings. Finally, after-taxed interest rate does not seem to have a significant impact on savings in Indonesia, Malaysia and Sri Lanka.

## **Part I**

### **REGIONAL OVERVIEW**

#### **TAXATION OF FINANCIAL ASSETS IN THE SEACEN COUTRIES**

## **PART 1 - REGIONAL OVERVIEW**

### **Chapter 1**

#### **TAXATION OF FINANCIAL ASSETS IN THE SEACEN COUNTRIES**

##### **I. Introduction**

###### **1.1 Significance of the Study**

Tax policies are crucial to economic growth as the structure of the tax system affects the allocation of resources and the distribution of income. In particular, taxation of financial assets, if properly designed and implemented, could help to encourage savings and investments as well as to develop the financial market.

Due to the varying tax structures and views on tax treatment of financial instruments of the member SEACEN Countries, it is useful to conduct a research to analyse the impact of taxation of financial assets in the SEACEN Countries, keeping in mind that for the tax on financial assets, to yield desirable outcomes every country must take into account its own institutional set-up, policy objectives and other socio-economic factors.

###### **1.2 Objectives of the Study**

The objectives of this project are :

- (a) to review the types and salient features of the taxation of financial assets in the SEACEN countries;
- (b) to assess the various effects of taxation of financial assets; and
- (c) to draw some policy implications and suggestions with regard to the taxation of financial assets.

###### **1.3 Scope and Organization of the Study**

The project was implemented as a collaborative project with the member central banks. While the resident researcher took charge of methodology and outlining of the country chapter as well as prepared

an overview of the regional analysis, the participating researchers undertook a detailed study of the respective countries, which in turn formed a basis for the overview chapter.

Accordingly, the research report is divided into two parts. Part I begins with an overview of the tax system and the respective importance of each category of tax in terms of revenue collected. Subsequently, a compilation of various taxes on different types of financial assets of the participating countries is presented. Part I concludes with an empirical test of the importance of such taxation on savings function. Meanwhile, Part II of the report gives details of the taxation on financial assets and the analysis of their impact on savings function of the eight countries participated in the project, namely Indonesia, Korea, Malaysia, Nepal, the Philippines, Singapore, Sri Lanka and Thailand.

## **Chapter 2**

### **TAX SYSTEM AND TAXATION OF FINANCIAL ASSETS IN THE SEACEN COUNTRIES**

#### **I. Tax System in the SEACEN Countries**

Below are some information with regard to tax system of eight SEACEN member countries i.e. Indonesia, Korea, Nepal, Malaysia, The Philippines, Singapore, Sri Lanka and Thailand.

##### **1.1 Indonesia**

In Indonesia, the major categories of tax are income tax, sales tax (value added tax), property tax, import duty, excise tax and other taxes. During the last two decades, there were two major changes with regard to tax policies namely, the 1983 tax reform and the Taxation Acts of 1994.

In general, the tax reforms of 1983 characterized by three main elements: broad base, self assessment and simplification. With regard to self assessment the tax payers were rendered more responsibilities as the law required them to file tax returns and to calculate the tax due by themselves. By moving towards a "self assessment" of tax liability, the direct contacts between taxpayers and tax officials were reduced and consequently the possibility of bargaining was lessened. Moreover, the tax administration cost were also reduced.

Taxation Acts of 1994, aimed at to further strengthen the tax base, as well as to bring Indonesia's tax regulations in line with those of other countries, particularly those within ASEAN. The four new tax acts, effective from January 1, 1995, covered the following areas : general provisions and procedures regarding taxation, income tax, value added tax on goods and services and luxury sales tax, and land and building tax. In the case of income tax, for instance, the maximum rate was reduced from 35 per cent to 30 per cent.

##### **1.2 Korea**

The Korean tax system comprises both national and local taxes. National taxes are divided into internal taxes, customs duties, transpor-

tation tax, education tax and special tax for rural development. Local taxes consist of 6 provincials and 9 cities and country taxes.

With regard to Income Tax, an individual who is a resident within Korea for one year or longer is liable to income tax on all income derived from sources both inside and outside the country. A non-resident individual pays income tax only on income derived from sources within Korea. Both residents and non-residents are taxed according to two methods i.e. the global taxation and separate methods. In the case of global taxation, taxable income includes interest income, dividend income, lease income from real estate, business income, wage and salary income, temporary income and other incomes.

To support the rural sector and the agricultural industry, during the transitional period in July 1994, a special tax for rural development was imposed. This special tax is in the form of surtax on the amount of exception of individual income tax, corporation tax, customs duty, as well as on the special excise tax and securities transaction tax.

Moreover, in Korea there is also inhabitant tax which is levied on both a per capita and a pro rata basis. The per capita basis requires an equal amount of tax per head to be paid by individuals and corporations located in a city or county. Meanwhile, the pro rata basis requires individual and corporate taxpayers' to pay additional 10 per cent of their income tax, corporation tax or farmland tax.

### **1.3 Malaysia**

In Malaysia's case the present tax system is an outcome of a gradual evolution over the years which was influenced mainly by the changing objectives of tax policy and structural changes in the economy towards meeting the nation's socio-economic objectives. The tax structure in Malaysia is generally classified into direct and indirect taxes. Direct taxes consist of income tax, stamp duty and real property gains tax. Meanwhile, indirect taxes comprise import duties, export duties, excise duties, sales tax and service tax.

The income tax which was governed by the Income Tax Act 1967 is generally imposed on a territorial basis, that is income from all sources accruing in or derived from Malaysia is liable to tax. In addition, income derived from overseas and remitted to Malaysia is also

subject to income tax. However with effect from Assessment Year 1995, such foreign-sourced income remitted to Malaysia by resident companies in Malaysia will be exempted from income tax. Nevertheless, for certain specific business, that is banking, insurance and air/sea transport operations, the scope of taxation are assessable on a world income scope.

#### **1.4 Nepal**

As in other countries, the tax system in Nepal consists of indirect and direct taxes. Indirect taxes comprise custom duties, excise duties and sales tax. Meanwhile direct taxes consist of income tax, land tax and non tax revenues. Among the indirect tax, custom duty has the most important source of government revenue although its contribution to tax revenue was negligible before 1951. In line with the international trend of trade liberalization, the government has been lowering customs tariff and modifying the tax procedure to make it more simple, clear and transparent. Consequently, in the budget of FY 1996 internationally traded are regrouped into four categories rate of 5, 10, 20 and 40 per cent. However, a special rate of 110 per cent duty has been imposed on for some goods which are considered as "luxury" such as light vehicles, beer, wine, arms and ammunition, cigarette, pipe tobacco etc. Meanwhile, an additional export duty of 0.5 per cent has been levied on the exportable goods as a service charge.

With regard to income tax, no form of income tax was existed until 1960. The income tax in the form of urban property tax, business profit tax and revenue surcharge was introduced after a department of tax was set up. His Majesty's Government has recently introduced a self-assessment tax system which is showing encouraging results in the urban areas. Efforts to enlarge a tax base is also successful as more tax payee are covered in the tax net.

For the non-tax revenue, the main revenues are duties and fees, tourism fees, penalty fines and forfeiture, receipt from sales and rent government property, services and goods, dividend, interest, royalty and sales of government property, donation and miscellaneous income etc.

#### **1.5 The Philippines**

The principal taxation law of the Philippines is contained in the National Internal Revenue Code (NIRC). On July 31, 1986, the Execu-

tive Order (EO) No. 37 has instituted major changes in contained in the NIRC. One of the major tax reform measures was the shift from scheduler to a more global approach in taxing income from compensation, business, trade and exercise of profession.

The tax system can be classified into direct and indirect taxes. Direct taxes include individual income tax, corporate income tax and other direct taxes, which include documentary stamp tax, travel tax and miscellaneous direct taxes. Indirect taxes consist of excise tax, sales taxes, export tax, VAT and licenses, import duties and export taxes.

As of income tax, individual incomes derived from trade or business in the Philippines are taxed based on a graduated income at 0 to 36 per cent while passive incomes are taxed at a flat rate of 20 per cent. Passive incomes include interest from the peso bank deposit, deposit substitutes and trust funds and similar arrangements, royalties and prizes and other winnings (except prizes amounting to P3,000 and below and winnings obtained from the Philippines Charity Sweepstakes.). Meanwhile effective from January 1, 1989 tax on dividends from domestic corporations were abolished. Regarding corporate income tax, all corporate income are subject to uniform rate of 35 per cent. Likewise the tax on passive income is fixed at 20 per cent.

It is worth noting that from 1988 the Value Added Tax (VAT) has replaced the sales/turnover tax and a number of other indirect taxes and in 1995 the coverage of VAT was expanded to include a wider range of goods and services. The applicable tax rate under the VAT is 0 to 10 per cent imposed each sale of goods and services in the Philippines and on imports to the country.

## **1.6 Singapore**

For Singapore the main statutes that set out the legislation on income taxation are the Income Tax Act and the Economic Expansion Incentive Act. The most significant tax reform in recent years was the introduction of the Goods and Services Tax (GST) in April 1994. The rationale for implementing the GST is to broaden tax base and simplify the tax system.

Tax system in Singapore broadly consists of personal income tax, corporate income tax, assets tax, customs and excise duties, betting tax,

Goods and Services Tax (GST) and other taxes. Regarding personal income tax, Singapore has a progressive tax structure which ranges from 2 per cent on the first \$5000 to 28 per cent for income exceeding \$400,000 with effect from the Year of Assessment (Y/A) 1997. Meanwhile, the corporate income tax rate has been reduced further by 1 percentage point to 26 per cent with also effect from the Year of Assessment 1997. Other taxes include entertainment tax, duty on patrol, foreign workers levy, airport tax etc.

### **1.7 Sri Lanka**

The system of taxation in Sri Lanka can be classified as below:

- (i) Taxes on Goods and Services - consist of turnover taxes, excise duties and defense levy.
- (ii) International Trade Oriented Taxes - consist of export and import duties.
- (iii) Income Taxes - Income from all sources, such as trade, business profession, employment, dividends, net capital gains, interests, discounts royalties etc. Income tax ratios are progressively scheduled according to a graduated rates after making allowances for the tax threshold income and other exemptions and deductions.
- (iv) Other Taxes - Include stamp duties and motor vehicle tax and luxury vehicle tax.

### **1.8 Thailand**

The principal taxation law of Thailand is set out in the Revenue Code B.E. 2481 (1938), which comprises corporation income tax, personal income tax, value added tax, specific business tax and stamp duty. There are also a number of national and local revenue collecting statutes imposing various types of tax. These important taxes include custom duties, excise tax, property and land tax as well as signboards tax that are levied totally by local government.

A summary of the major taxes in the SEACEN countries can be classified as follows:-

**Table 2.1**

<b>Country</b>	<b>Classification of Tax Revenue</b>
Indonesia	Income tax, sales tax (VAT), property tax, import duty, export duty, excise tax, other taxes
Korea	Income tax, corporation tax, value-added tax, customs duties, land & building tax, special excise tax, other taxes
Malaysia	Direct taxes: Income tax, property gains tax, stamp duty, other taxes Indirect taxes: Export duty, import levy, excise duty, sales tax, services tax, other taxes
Nepal	Income tax, export tax, land & building tax, non-tax revenue, other taxes
Philippines	Income tax, value-added tax, export tax, land & building tax, excise tax, import duty, other taxes
Singapore	Income tax, assets tax, motor vehicle tax, customs & excise duties, betting tax, stamp duty, GST, other taxes
Sri Lanka	Income tax, turnover tax, excise tax, defense levy, export tax, property tax, license fees, import tax, other taxes
Thailand	Personal income tax (from interest & dividends income and from non-interest and dividends income), corporate income tax, value added tax, import duty, excise tax, other taxes.

### ***Total Revenue and Income Tax***

According to the tax system described earlier, it is clear that taxes on financial assets are treated as part of income tax in most of the

SEACEN countries. Although aggregate data on tax on financial assets are not available, it would nonetheless be informative to examine the ratio of income tax over GDP among the SEACEN countries. Such ratio could shed some light on the scope of taxation on financial assets.

**Table 2.2**

**Ratios of Total Revenue and Income Tax as Percent of GDP  
(Period Average: 1984-1994)**

<b>Country</b>	<b>Total Revenue GDP (%)</b>	<b>Income Tax GDP (%)</b>
Indonesia	9.88	3.80
Korea	17.63	2.55
Malaysia	27.46	13.45
Nepal	7.23	0.70
Philippines	16.08	4.92
Singapore	16.20	7.60
Sri Lanka	18.02	2.63
Thailand	15.58	4.36

The above table shows that, as a proportion to GDP, Malaysia has the highest income tax collection, followed by Singapore. On the other hand, the percentage of income tax to GDP collected is the lowest in Nepal, Korea and Sri Lanka, respectively. These crude indicators reflect some scope, if it is deemed necessary, for the government of Nepal, Korea and Sri Lanka to raise these tax collection by imposing more taxes on financial assets.

## **II. Tax on Income on Time and Savings Deposits**

In *Indonesia* since 1988, interest earned from time and savings deposits are taxed separately at the rate of 15 per cent of the gross amount for resident taxpayer. Meanwhile, for the non resident taxpayer other than permanent establishment the tax rate is either 20 per cent

or the rate which is prescribed in the prevailing agreement on the avoidance of double taxation (tax treaty). Taxes on income derived from time and savings deposits are calculated and submitted through the annual tax returns of the banks receiving the interest or discount rates.

In **Korea**, there are three kinds of tax on interest earned from deposits i.e. normal taxation, taxation at a concession rate and tax exemption. Since 1 January 1996, almost all deposits are subject to 15 per cent tax. However, the effective tax rate is 16.5 per cent because an inhabitant tax is imposed additionally.

Since 1 January 1996, there are several kinds of deposits, the interest on which are taxed at a lower rate i.e 10 per cent. These deposits include long-term savings for wage earners, long-term securities for wage earners, securities savings for wage earners, national corporation stock trusts, small household deposits not exceeding 18 million won, small bonds savings not exceeding 18 million won, pension trusts for old age not exceeding 20 million won, savings deposits for students not exceeding 2 million won, and savings for household expenditure not exceeding 12 million won.

Tax exemption are granted to several categories of deposits in Korea. These include for ten-year or more term house purchase deposits, personal pension trusts, five-year or more term savings-type insurance policies, deposits less than 20 million won; less than 10 million won in Credit Unions, Mutual Credit Facilities and New Community Finance Associations, and trusts for public welfare.

In **Malaysia**, in period before 1986, the incomes earned from all financial assets except provident, pension and insurance funds, are treated as part of global incomes and taxed according to the marginal personal or corporate tax rates. Since 1986, however, tax treatment on interest incomes earned from deposits has been modified to overcome the problems of tax evasion. The change required a 5 per cent withholding tax on interest incomes earned by individuals to be deducted at source.

In **Nepal** interest incomes from saving deposits are included in the global incomes, whereas the interest incomes from fixed deposits has been separately taxed since 1978. In 1978 interest incomes from depos-

its less than Rs 1000 were exempted but a progressive rate of 5,10,15 and 20 per cent were levied on the interest incomes from deposits above Rs 3250, Rs 6500, Rs 13000 and above Rs 13000, respectively. Since 1987/1988 the slab system was revised and the initial Rs 5000 was exempted. Interest incomes derived from incomes above this limit were required to pay tax in advance at a progressive tax rate of 5,10,15 and 20 per cent for the above limit up to Rs 15000, Rs 30,000, Rs 50,000 and above Rs 50,000. This form of tax has given risk to a practice of splitting deposits among different banks in order to take advantage of exemption limit. To discourage such practices, all interest incomes from bank deposits have been taxed at source at 5 per cent from 1994.

In *the Philippines'* case, interest on the peso bank deposits, yields and any monetary benefit from deposit substitutes of any maturities are subject to a final tax of 20 per cent. To encourage inward remittance of foreign exchange into the country by non-residents, income derived from foreign currency deposits is exempted from taxes. The same exemption applies to income derived by depository banks and offshore banking unit authorized by the Bangko Sentral ng Pilipinas to operate in the Philippines.

In the case of *Singapore*, with regard to demand deposits, savings and time deposits since 1966, deposits for individuals, interest income is taxed at a marginal tax rate ranging from 2 per cent to 28 per cent. Meanwhile, for companies, interest income is subject to corporate tax rate of 26 per cent.

As for *Sri Lanka*, income from all sources are generally aggregated and taxed under the global income taxation system. Accordingly, interest income from bank deposits either at commercial banks or National Savings Bank (NSB), investments on government securities and from any other financial instruments are treated as a part of aggregate income and subject to normal income taxes. However, special tax rate of 15 per cent is applied to approved long term deposit such as NSB Endowment Scheme, Bank of Ceylon National Endowment Scheme (minor adults) and Bank of Ceylon Children' Savings Scheme. Nevertheless, a 10 per cent tax is levied on the investment income of all pension and provident funds gratuity funds. Interest payable to any individual, on Ceylon Savings Certificates, any National Savings Certificate purchased before November 15,1978 is exempted from income tax. Incomes derived from Tax Reserve Certificate are also exempted.

In order to encourage inward remittances and retain these in the form of foreign currencies, interest on non-resident foreign currency accounts, special accounts held by commercial banks and resident foreign currency accounts are exempted from income tax.

With a view to improve tax compliance , banks and financial institutions are requested to withhold income tax of 15 per cent on the interest payable on any deposits held by any individual or corporate with these institutions.

In **Thailand**, tax on time deposits and saving deposits are subject to 15 per cent withholding tax.

A detailed of tax on income on time deposits in SEACEN countries can be summarised in Table 2.3.

**Table 2.3**

**TAX ON INCOME ON TIME DEPOSITS**

<b>Country</b>	<b>% Tax (S/G) */</b>	<b>Last Amendment</b>
Indonesia	15 (S)	1988
Korea	16.5/10.5/0 (G)	1996
Malaysia	5 (S)	1987
Nepal	5 (S)	1994
Philippines	20 (S)	1986
Singapore	2-28 (G)	1996
Sri Lanka	15 (G)	1996
Thailand	15 (S/G)	1987

- \*) S = Separate from income tax  
G = Global ( part of income tax)

It is noted from Table 2.3 that in the Philippines interest income from pension trust is exempted from tax and in Sri Lanka the 15 per

cent tax on income on time deposits is a withholding tax. While in Thailand, the 15 per cent tax on income on time deposits can be treated either as a separate or global, depending on the preference of the depositors.

**Table 2.4**

**TAX ON INCOME ON SAVINGS DEPOSITS**

<b>Country</b>	<b>% Tax (S/G) */</b>	<b>Last Amendment</b>
Indonesia	15 (S)	1988
Korea	16.5/10.5/0 (G)	1996
Malaysia	5 (S)	1987
Nepal	5 (G)	1994
Philippines	(20 (S)	1986
Singapore	2-28 (G)	1997
Sri Lanka	15 (G)	1996
Thailand	15 (S/G)	1987

- \*) S = Separate from income tax  
G = Global (part of income tax)

It is noted that for Malaysia and Singapore, the corresponding tax rates appearing in the Table 2.4 are for individual income and not for corporate. In Sri Lanka, the 15 per cent tax is a withholding tax. For Thailand, the 15 per cent tax can be treated either on a separate or global basis. In Singapore, a progressive tax rates of 2 per cent to 28 per cent take effect from the year of assessment 1997. The detailed of tax on Income on Savings Deposits in SEACEN countries is depicted in Table 2.4.

### **III. Tax on Capital Gain**

For *Indonesia's* case, the tax on the capital gains has been subject to tax since 1 January 1995 following the Taxation Laws of 1994, dated 9 November 1994. For all transactions of shares, a flat rate of 0.1 per cent is imposed on the gross amount. Meanwhile, for

transaction of founders' shares, except those of business partnership companies owned by venture capital companies, the tax rate is 5.1 per cent of the gross amount. Prior to the enactment of the Taxation Law of 1994, capital gains from sale or transfer of property were treated as part of the income tax base.

In the case of **Korea** capital gains from the transaction of stocks and bonds with the exception of shares in unlisted companies have been exempted from taxation in order to develop the capital markets and facilitate the fund raising by business firms. As for **Nepal** capital gains from financial assets are completely tax free. However, gains on physical capital are taxed indirectly in the form of a registration fee whenever the ownership is transferred. In **Malaysia** capital gains from trading in shares are not subject to tax but the dividends incomes are subject to a corporate tax rate.

In **the Philippines'** case, sale , exchange or disposition of shares of stocks in any domestic corporation not traded through a local exchange is subject to a tax of 10 per cent for net capital gains not over P100,000 and 20 per cent for amounts over P100,000. Meanwhile, a transaction tax of one-half or 1 per cent (based on the gross selling price or gross value in money of stocks transacted) is imposed on the sale, exchange or disposition of shares of stock listed and traded through the Philippines Stock Exchange (PSE). For shares of stocks through IPO the following tax rates are applied on the gross selling price of shares of stocks in accordance with the proportion of shares of stocks sold or exchanged to the total outstanding shares of stock after listing in the stock exchange i.e.  $33\frac{1}{3}$  per cent or below to total outstanding the tax is 4 per cent; over  $33\frac{1}{3}$  per cent but below 50 per cent the tax is 2 per cent ; and over 50 per cent the tax is 1 per cent. Meanwhile , for **Singapore's** case, there is no tax on capital gains.

In **Sri Lanka** although capital gains are generally treated as part of income, they are taxed differently depending on the source. For instance, capital gains arising from the change in ownership of property is taxed according to the period of ownership. If the property has been acquired to less than 2 years, it is treated at normal income. If a period of ownership is between 2-25 years the tax rates are ranged from 25 per cent to 5 per cent. In the case of capital gains arising from other sources such as redemption of shares, debentures, surrender or relin-

quishment of a right etc. the normal tax schedule is applicable subject to maximum tax rate of 25 per cent. With effect from August 1992 capital gains arising from sale of shares in quoted companies are exempted from capital gains tax, prior to that they were taxed at 20 per cent if the period of holding is less than one year. Since April 1996, capital gains arising from all transactions in the stock exchange have been exempted from income tax. Finally in the case of **Thailand**, most types of capital gains from financial assets are exempted, except for capital gains of common stock that are not listed in the Stock Exchange of Thailand. Such incomes are included as part of incomes and are being taxed accordingly.

The detailed of tax on income on capital gain in SEACEN countries is shown in Table 2.5.

**Table 2.5**

**TAX ON INCOME ON CAPITAL GAIN**

<b>Country</b>	<b>% Tax (S/G) */</b>	<b>Last Amendment</b>
Indonesia 1)	0.1 % (S)	1996
Korea	none	-
Malaysia	none	-
Nepal	none	-
Philippines 2)	10/20 (S)	1986
Singapore	none	-
Sri Lanka	none	-
Thailand	none	

\*/ S = Separate from income tax

G = Global (part of income tax)

1) = Tax on sales transaction of the gross amount

2) = 10 % for < P100,000 and 20 % for > P100,000

#### **IV. Tax on Dividend Income**

In the case of **Indonesia**, as at January 1995, dividends earned by the resident tax payers are subject to a tax of 15 per cent of the gross amount, while for the non-resident tax payer other than permanent establishment the rate is 20 per cent or the rate as prescribed in prevailing double taxation treaty.

In **Korea** the tax rate for dividend is 15.0 per cent, however the actual total tax rate is normally 16.5 per cent due to an inhabitant tax of 1.5 per cent. Meanwhile, dividend income from stocks invested in Employees' Stock Holding Associations and not exceeding 18 million won is subject to a withholding tax at 10.5 per cent (income tax rate 10.0 per cent + special tax rate for rural development 0.5 per cent).

As for **Malaysia**, dividend incomes from savings in the form of compulsory and contractual savings are not subject to tax. Dividend incomes from equity participation, however, are subject to the corporate tax rate and are deducted at source. Upon presentation of dividend, statement rebates will be given for individuals whose personal tax rates are below the corporate tax rate. In **Nepal** and the **Philippines** dividends from domestic enterprises have been exempted from tax since 1991 and 1989 respectively.

As for **Singapore**, dividends paid to share holders are taxed at the marginal tax rate. A credit equal to the company tax (27 per cent of every \$1 of dividend income) paid is allowed against the taxpayer's tax liability. This imputation credit is available to both corporate or individual shareholders whether they are resident or non-resident. Meanwhile, dividends that are paid out of a tax exempt account by companies enjoying tax holidays or tax reduction under incentives schemes are being exempted from tax, as for instance, dividend from offshore re-insurance business and offshore banking.

In the case of **Sri Lanka**, all dividends liable for tax are subject to the 15 per cent withholding tax. For **Thailand's** case, individuals who received dividends from a company incorporated in Thailand (whether listed or not listed in the Stock Exchange of Thailand) are subject to tax at a flat rate of 10 per cent withholding at source. Alternatively, tax payers may choose to include such income in the global income which are subject to tax at progressive rates. In the

latter case, a tax credit of dividend income by 3/7 of the tax that has been withheld will be granted.

## **V. Tax on Income on Bonds and Other Financial Assets**

With regard to tax on bonds, in **Indonesia** the tax rates were the same as those imposed on to that of deposits and Certificate of Bank Indonesia (SBI) i.e 15 per cent for resident taxpayers, 20 per cent for non resident tax payers other than permanent establishment or the rate prescribed in the prevailing agreement on the avoidance of double taxation (tax treaty). However, if the bonds is sold at a premium (above its nominal value), this premium constituted an income for party who issued bonds. On the other hand, if the bond is sold at a discount ( below its nominal value), such discount constitutes an income for the purchaser of the bond.

In **Korea** interest income for bonds is treated as dividends which is subject to a 15 per cent tax as of 1 January 1996 (compared with 20 per cent previously ). However, as in the case of dividends the selective tax rate on bonds interest is 16.5 per cent as an inhabitant tax is added. Starting 1 January 1996, stocks vested in the Employee's Stock Holding Associations not exceeding 18 million Won is subject to tax at 10.15 per cent.

In **Nepal**, with a view to increase private sector investment in government bonds, the government in 1990 issued savings certificates offering interest rates from 15.0 per cent to 15.50 per cent subject to income tax rate of 5 per cent. Since this offer did not seem to be attractive to private investors, interest earned from government bonds have been exempted from taxation since 1991. In the **Philippines** , coupon/interest income derived from bonds is subject to 20 per cent.

In the case of **Singapore**, interest from bonds for individuals is taxed at marginal tax rate which range from 2 per cent to 28 per cent. For non-residents, interest income on Asian dollar bonds is exempted from tax. Similarly, interest earned from government bonds is also exempt.

As for **Sri Lanka**, under the Local Treasury Bill Ordinance, non-residents are exempted from income tax for any amount of income derived from Treasury bills. However, interest on Government Rupee

Securities by non-residents are liable to income tax at 33 1/3 per cent. In **Thailand** interest income from bonds is subject to 15 per cent withholding tax.

In **Singapore**, the latest tax measures were aimed at encouraging activities on fund management and risk management. As outlined in 1996 budget, a 5 per cent concessionary tax on incremental profits derived from these activities was granted with effect from year of assessment 1996.

Specifically, the 5 per cent tax will apply to the increase in taxable income over the preceding qualifying year for income arising from the following activities :

- the managing of foreign investment funds of at least \$ 5 billion by Asian Currency Units and Approved Fund Managers;
- the underwriting, managing or placing of foreign securities by Asian Currency Units and Approved Securities Companies, if the taxable income from such activities exceeds \$10 million;
- the trading of foreign securities by Asian Currency Units and Approved Securities Companies, provided the taxable income from such activities exceeds \$ 10 million; and
- the trading of new futures and options contracts on SIMEX by its members for a period of up to five years from the commencement of trading of the new contract on SIMEX. Only the top 20 most active firms qualify for the 5 per cent tax.

This scheme will be effective for five years and may be extended.

Similarly, to encourage the local unit trust industry, a concessionary taxation scheme will be applied to the income and distributions of unit trusts with effect from year of assessment 1996. For a unit trust which is granted this incentive, all income (except dividends received from Singapore) will no longer be taxed as other unit trust. Instead, distributions made out of such income will be treated as follows:

- Distributions to non-resident unit holders will be tax exempt.

- Distributions paid out of gains from disposal of securities to residents other than individuals and partnerships will be taxed.
- Only 10 per cent distributions paid out of gains from the disposal of securities to resident individuals and partnerships will be taxed. The remaining 90 per cent will be tax exempted.
- Distributions of other income such as interest and foreign dividends to resident unit holders will be taxed.

Taxable distributions will be subject to withholding tax at the prevailing corporate rate, but unit holders will be able to claim a credit for tax withheld.

## Chapter 3

### THE IMPACT OF TAXATION OF FINANCIAL ASSETS ON SAVINGS

This chapter presents the impact of taxation of financial assets on savings. The study mostly concentrated on the impact of deposits rate after tax on the savings function. Eight SEACEN member banks and monetary authorities have attempted to run some regressions with either Gross National Savings or Gross Domestic Savings as dependent variable. Income and interest rate on deposits are two important independent variables in addition to the demographic variables such as dependency ratio and foreign savings.

Table 3.1 summarised the major findings of the study. The empirical evidences suggest that in the long-run after tax interest rates are significant in explaining the savings function in Korea, Philippines and Singapore. While in Indonesia, Malaysia, Sri Lanka and Thailand, the long-run after tax interest rates are not significant in explaining the savings function. In the case of Korea and the Philippines, the signs are positive which suggest that the substitution effect is dominating income effect as the higher the net gains from interest, the more people will save. However, for Singapore, the coefficients are negative, indicating that as income earned from interest rises, the higher income realised will lead to a decline in savings. As for Nepal, due to data constraint on after-tax interest rates, only the role of real interest rate was tested. (see chapter 8).

**Table 3.1**

#### COEFFICIENT OF AFTER TAX INTEREST RATE ON SAVINGS

Country	Long-run Coefficient
Indonesia	-0.01 **
Korea	0.02 *
Malaysia	-0.005 **
Philippines	0.0294 *
Singapore	-0.01 *
Sri Lanka	-0.0321 **
Thailand	0.0003 **

\* = significant

\*\* = not-significant

Concerning income coefficients especially in the long run, in Indonesia national disposable income is significant in explaining the gross domestic savings. In Korea, both temporary and permanent income are also significant in explaining gross national savings. As for Malaysia, annual growth rate of Gross National Product does not play a significant role in demand for fixed deposits of corporate sector. The private individual, however, GDP significantly explained this demand for fixed as well as saving deposit. As for the Philippines, disposable income is significant in explaining household savings. In Singapore, real Gross Domestic Product exerts a positive and significant influence on the gross domestic savings rate. As for Sri Lanka, income is significant in explaining Gross National Savings. In the case of Thailand, economic growth is also significant in explaining private gross savings in proportion to Gross Domestic Product.

More detailed overviews of the empirical results of seven SEACEN countries are as follows.

### **1. Bank Indonesia**

For Indonesia's case, the "impact analysis" is conducted in order to assess the impact of taxation of financial instruments on domestic savings. The basic idea of this analysis is to simulate the estimated savings functions based on certain scenarios. Firstly, an Error Correction Model (ECM) was applied on the savings function followed by the applications of a base scenario, whose purpose is to see the impact of interest rate before subtracting the tax on domestic savings and a non-base scenario, which will display the impact of after-taxed interest rate on the domestic savings. Secondly, the impact of taxation of financial instruments on domestic savings is measured by the deviations of the savings pattern derived from the non-base scenario compared to the base scenario. Since the base-scenario simulation reflects the long-term trend of savings behavior, such deviations indicate whether the domestic savings will grow above or below its long-term trend.

The observation period is 1969 - 1995, which is structurally classified into two periods: I (1969 - 1988) and II (1989 - 1995). The observation period I is a period when savings functions were developed. The impact analysis of taxation is conducted by applying a simulation with the base and the non-base scenarios in the observation period II.

To ensure a stable long-run relationship, unit root and cointegration tests were performed. The simulation results of base and non-base scenarios (1989 - 1995) and the annual growth of nominal domestic savings can be summarized as follows:

**Table 3.2**

**THE SIMULATION RESULT OF BASE AND  
NON-BASE SCENARIO IN 1989-1995  
THE ANNUAL GROWTH OF NOMINAL DOMESTIC SAVINGS (%)**

<b>Domestic Savings</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>
Base scenario	25.29	24.49	21.25	15.38	23.67	36.85	13.04
Non-base scenario	25.29	29.34	21.44	16.83	23.11	35.35	12.29
Deviation *)	-0.00	4.83	0.19	1.45	-0.56	-1.50	-0.75

\*) Difference between base and non-base scenario.

From the above Table, it is noted that there is a strong relationship between domestic savings formation and the taxation of financial instruments, which is shown by the difference between the base scenario (non tax imposed) and in the non-base scenario (after tax is imposed). As shown in Table 3.2, the savings growth was higher than its long-run trend for three years (1990 - 1992) before dropping below the trend. Thereafter, the positive deviations for the first three years could partly be explained by the second major financial liberalization in Indonesia launched at the end of 1988 which generated positive impact on savings more than the negative impact of the tax.

## **2. Bank of Korea**

The Bank of Korea used annual data from 1970 to 1994 to estimate the savings function. Prior to this, unit-root and cointegration tests were also performed. The savings function can be stated as follows:

$$\log S = a + b (\log Y_p) + c (\log Y_m) + d (I) + e (P) + f (FSR) + g (GSR) + Et$$

where

$s$  = aggregate national savings per capita

$Y_p$  =  $(Y_t + Y_{t-1} + Y_{t-2})/3$ , as a proxy of permanent income, where  $Y_t$  is current income, gross national disposable income, per capita and  $Y_p$  is three-year average of  $Y_t$ .

$Y_m$  =  $Y_t - Y_p$ , as a proxy of temporary income.

$I$  = nominal interest rate \* net of tax. Interest rate is represented by a one-year rate on time deposits and tax rate is that on general financial incomes apart from those which are tax-exempt.

$P$  = percentage change in the consumer price index

$FS$  = foreign savings proxied by current account balance (in reverse sign) as a share of nominal GNP.

$GSR$  = government savings ratio

The major outcome of the study on Korean case are :

- (i) Both temporary income and permanent income have a positive effect on national savings. However, the coefficient of permanent income is larger than that of temporary income, meaning that the former shows a higher marginal propensity to save than the latter.
- (ii) The sign of the coefficient of the after-tax interest rate is positive. This means that the substitution effect of interest rate is greater than its income effect and also that the tax rate on interest income influences savings in the opposite direction. Though the size of the coefficient is small, it is significantly related to per capita savings.
- (iii) The sign of the coefficient of the inflation rate is negative, meaning that higher inflation rate is liable to increase current consumption rather than current savings.
- (iv) Foreign savings proved to have a negative influence on gross savings, implying that the income in foreign savings tend to decrease domestic savings.
- (v) The effect of government savings was found to be insignificant.

### **3. Bank Negara Malaysia**

For Malaysia, the empirical investigation was focused on a more disaggregated level within a framework of partial portfolio management. Due to data constraint, the impact of taxation on savings were examined through the fixed and savings deposits hold by individual and corporate with the banking system. Results of the key equations are reported below.

$$\text{LNFDIND} = a_0 + a_1\text{LNFDIND}(-1) + a_2\text{INDTAX} + a_3\text{M12BT} + a_4\text{AGDPN}(-1) + a_5\text{ASV} + a_6\text{DUM} + a_7\text{DUM1} + u \quad (1)$$

$$\text{LNCORP} = b_0 + b_1\text{CORTAX} + b_2\text{GNPGH} + b_3\text{M3T} + b_4\text{CPI} + b_5\text{APRIt}(-1) + b_5\text{BFO} + U \quad (2)$$

$$\text{LNSVIND} = c_0 + c_1\text{LNSVIND}(-1) + c_2\text{INDTAX} + c_3\text{AGFDIND} + c_4\text{AGDPN} + c_5\text{SVR} + c_6\text{DUM} + c_7\text{DUM1} + U \quad (3)$$

where

FDIND = Individual fixed deposits  
CORP = Corporate fixed deposits  
SVIND = Individual saving deposits

#### *Independent Variables*

INDTAX = individual tax rate on interest income.  
M3BT = three-months fixed deposit rate before tax  
M12BT = twelve-months fixed deposit rate before tax  
GNPGH = Annual growth rate of Gross National Product at current price  
BFO = total number of commercial banks and finance companies branch offices  
ASV = Annual growth rate of individual saving deposit  
AGDPN = Annual growth rate of Gross Domestic Product at current price

- CPI = Annual growth rate of Consumer Price Index
- APRI = Annual growth rate of private investment
- DUM = Dummy variable reflecting change in interest income tax measures
- DUM1 = Dummy 1 variable representing three periods of oil shocks, 1973-1975, 1979-1980 and 1990-1991.

The three savings equations were run separately using the Econometric Views package (EViews). The log specification was chosen because generally it performed better than other specifications and conveniently provided the estimation of elasticities directly. Lagged variables were also introduced to capture the partial adjustment process and to reduce the problem of serial correlation. In the equation with lag, diagnostic tests are run to detect the existence of serial correlation and heteroscedasticity.

Results from equations 1 and 3 seem to suggest that 5 per cent withholding tax on fixed and savings deposits of individuals do not affect demand for these deposits. This could be partly explained by the relatively small tax rate and the exemption of tax given to small and long-term savers.

#### **4. Bangko Sentral ng Pilipinas**

To determine the impact of taxation of financial assets on savings, a savings function was formulated for the household sector, basing on the historical importance of this sector in contributing the largest source of net domestic savings in the country. The variables that were considered in this savings equation were (1) household disposable income (2) real interest rate (3) the lagged values of savings to capture the static adaptive expectations formulation and (4) a dummy variable to capture the observed deviation of household savings in 1992 due to statistical error. The unit-root and cointegration tests were performed in order to ensure that the econometric relationships among the variables are not spurious. To examine the impact of taxation on interest rate, two savings functions were estimated, one using real interest rate before tax and the other, real interest rate after tax. Subsequently, the coefficients of real interest rates were compared to check the impact of taxation on savings. If the difference in coefficient of real interest

rate before tax and real interest rate after tax is insignificant then it can be concluded that savings will not vary significantly as a result of the imposition of taxes on interest rates.

The regression results indicated that income and real interest rate are important factors that influence the savings behavior of the household sector in the Philippines. Thus, to promote domestic savings, it is crucial that real income particularly of households, being the major component of domestic savings, should not be eroded by high inflation rates. At the same time, it is important for real interest rate to be positive. However, the imposition of tax on financial assets, particularly the interest rates, does not seem to significantly affect the level of savings of the household sector.

## **5. Monetary Authority of Singapore**

In looking at the impact of taxation on savings, a long-run savings function and the short-run error correction model were formulated. Unit root and cointegration tests were also performed.

The theoretical framework underpinning the specification of the savings function of Singapore is the life-cycle hypothesis (LCH), pioneered by Ando and Modigliani (1970). In the first step, a long-run co-integrating relationship defined as follows:

$$gdsy = a1*gsavy + a2*cpfsavy + a3*dr + a4*rr + a5*gdp_g + \text{constant}$$

where,

$gdsy$	=	gross domestic savings rate
$gsavy$	=	government savings rate
$cpfsavy$	=	CPF saving rate
$dr$	=	dependency ratio
$rr$	=	after-tax real rate of return of weighted averaged savings and fixed deposits
$gdp_g$	=	gdp growth

In the second step, an equation in error-correction form was specified using the errors derived from the first-step as inputs for the error-correction terms. All variables were specified in differences, except the error terms from the first step. The error terms was entered as lagged values because deviations from equilibrium can only be defined ex post.

Mathematically, the short-run dynamic equation is specified as follows,

$$\Delta \text{gdsy} = a1*\Delta \text{gsavy} + a2*\Delta \text{cpfsavy} + a3*\Delta \text{dr} + a4*\Delta \text{rr} \\ a5*\Delta \text{gdp} + a6*\Delta \text{error}(-1) + \text{constant}$$

It is found that among the long-run factors, the after-tax real rate of return of savings and fixed deposits has a negative effect on the gross domestic savings rate, implying a dominance of the income effect over the substitution effect. There is also evidence to suggest that shifts in government savings ratio have to some extent induced offsetting behavior on the part of the private sector. Similarly, Central Provident Fund (CPF) savings are found to have a positive contribution to the Gross Domestic Savings (GDS) ratio both in the short and long run. In contrast to government savings, the 'CPF effect' is stronger in the short-run than the long-run. Meanwhile, real GDP growth exerts a positive and significant influence in the long-run. On the other hand, dependency ratio has a negative effect on the GDS ratio, for every 1 per cent point reduction in the dependency ratio, the savings rate rises by 0.32 per cent point.

In summary, the study found that both the long-run and short-run savings function are explained by the same set of variables. In the long-run, however, the high savings rate could largely be explained by the falling dependency ratio, a growing pool of CPF savings and the surplus budgetary operations. As for the impact of tax on financial assets, the evidence does not suggest that this will bring a serious repercussion on savings, due to a strong influence of income effect.

## **6. Central Bank of Sri Lanka**

A savings function for Sri Lanka was estimated using Engle Granger two steps procedure which ensures the desirable properties of the Error Correction Model (ECM). Such procedure involves estimating the cointegrating vectors in the first step and, in the second steps replacing the level terms with the lagged residuals from the co-integrating regression already explained earlier.

The co-integrating equation together with dynamic specification of the ECM provide useful information for sensible interpretation of both long-run and short-run influences on the savings function. The co-integrating equation provide situations for long-run equilibrium while

dynamics of the ECM explain the short run effects. A summary of the estimated results is presented in Table 3.3.

**Table 3.3**  
**LONG-RUN ELASTICITIES OF THE MODELS**

	<b>Model with before tax interest rate</b>		<b>Model with after tax interest rate</b>	
	LRGNS	LRGDS	LRGNS	LRGDS
Income	1.0300	0.8674	0.9348	0.7342
Interest rate	0.0199	0.0027	-0.0321	-0.0658
Policy variable	0.1879	0.0769	0.2418	0.1438

In the national savings function, the long-run real income elasticities were positive and significant. However, when the interest rate was adjusted for taxation and included in the model, the equations were co-integrated at 5 per cent level and the coefficient for interest rate was found to be insignificant.

On the whole the models provide strong evidence of a positive relationship between income with savings. However, the inclusion of after tax interest rate resulted in obtaining an income effect around 1 indicating that a one percentage change in real private disposable income will increase aggregate savings by one percentage point in real savings. In addition, although the coefficient of interest rate became negative the interest coefficients were positive in both equations. However, as these coefficients are not significant and stable, the impact of interest rate on commercial bank deposits on aggregate savings is inconclusive.

## **7. Bank of Thailand**

In the case of Thailand, the impact of taxation on financial assets are assessed through savings function which are formulated by the life-cycle hypothesis. The real interest rate after tax is included in the

equation as one of the explanatory variables. According to the life-cycle hypothesis, the other variables affecting savings are economic growth rate and demographic factors.

Before the equation is estimated, variables are tested for a unit root. Since the unit root were found in all other variables except for the real interest rate after tax, further tests was performed to ensure that the savings, economic growth rate and demographic variables are cointegrated before the equation was finally estimated.

The regression results show that Thailand's savings function is mainly explained by the effect of economic growth rate while the demographic variable and the real interest rate after tax variable are found insignificant.

## Chapter 4

### CONCLUDING REMARKS

The tax system in the SEACEN countries is basically the same, comprising mainly, income tax, land/property tax, sales tax or VAT, import and export duties and others. As for tax on financial assets, the SEACEN countries implement two different assessment and procedures with some countries opting to treat such tax as separate from income tax while other countries treat income derived from financial assets as part of the global income to be taxed together.

The most common form of tax on financial assets is tax on interest earned from deposits. The rate and method of collection, however, differed from country to country. In Indonesia, Malaysia, and Nepal, the tax rates imposed are 15 per cent and 5 per cent (for both Malaysia and Nepal) respectively. This tax is deducted at source and is treated separately from income tax. For Korea the rates range between 0 to 16.5 per cent and calculated globally. In the Philippines, the tax rate for individuals is 20 per cent. In Singapore the tax rates range between 2 to 28 per cent depending on their income received. Lastly, Thailand imposed 15 per cent tax rate but this could be calculated either globally or separately from the individuals' income.

As for tax on capital gains, only Indonesia and Philippines imposed such tax. In Indonesia, the tax is calculated on the basis of transaction values, while in the Philippines tax rates are either 10 or 20 per cent depend on whether net capital gain is lower or higher than P100,000. In Korea, Malaysia, Nepal, Sri Lanka and Thailand, incomes originating from capital gain are free from tax.

With regard to dividend tax, Indonesian residents are subject to a 15 per cent tax, while non residents are taxed at 20 per cent. In Korea the similar tax rate is 16.5 per cent. As for Malaysia, dividend derived from shares and equity are considered as part of personal income thus it is taxed according to the income tax rate. In Singapore, dividend to share holders is taxed at marginal tax rate. As for Sri Lanka, all dividends liable for tax are subject to a 15 per cent withholding tax. Finally, in Thailand, there is a flat rate for the tax on dividend at 10 per cent.

The study also examined the impact of tax on financial assets on savings by estimating the savings equations of the seven SEACEN countries. It is found that after-taxed interest rates are significant in explaining the savings function in three countries, namely, Korea, the Philippines, and Singapore. For the first two countries, the coefficient of after-taxed interest rates has a positive sign, implying that excessively high tax rate on deposits could lead to a decline in savings. The results also suggest that the substitution effect is stronger in these three countries. This coefficient, however, is not statistically significant in the case of Indonesia, Malaysia, Sri Lanka and Thailand.

As for the impact of income on savings, a significant and positive relationship is found in the case of Indonesia, Korea, Philippines and Thailand. As for Malaysia which estimated the fixed and saving deposits as proxies for national savings, income does not seem to be significantly related to savings.

In conclusion, the findings seem to be more conclusive with respect to income. Generally, higher income will lead to higher savings in most of the SEACEN countries. With respect to the after-taxed interest rate, however, it is rather difficult to make such a general statement as the empirical results varied across countries.

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## **Part II**

### **COUNTRY CHAPTERS:**

**INDONESIA**

**KOREA**

**MALAYSIA**

**NEPAL**

**PHILIPPINES**

**SINGAPORE**

**SRI LANKA**

**THAILAND**

## **Chapter 5**

### **TAXATION OF FINANCIAL ASSETS IN INDONESIA**

**by**

***Solikin***

***T.M. Arief Machmud***

#### **I. Tax System**

During the 1970's, the Indonesian economic development was accelerated by sharp increases in oil prices. During this period, the economy was characterized by three factors: abundant foreign exchange, heavy dependence on oil, and dominant role of the government. The strategy was to use oil revenues optimally to speed up the process of development. The government, through budgetary mechanism, played a major role in channeling the oil revenues to stimulate economic growth and income distribution.

In the early 1980's, the deterioration of the external environment, marked by the sharp drop of oil prices, had a direct impact on Indonesia's fiscal revenues. This development highlighted the need for further structural measures and more stringent stance in fiscal policy. Thus fiscal policy was assigned an important role in the coordination of the short term stabilization objective and medium term growth objective. In this regard, on the revenue side, the Government was compelled to find an alternative source of development fund from non-oil/gas sector, particularly that coming from tax. On the expenditure side, efficiency and austerity must be adopted. The allocation was made only for urgent and important matters, while project developments were selected in view of priority and positive impact on public welfare. Tax revenues were regarded as a promising alternative since oil receipts were not possible to be increased. To boost state revenues from tax, some measures to improve taxation system which was introduced in 1983 were taken.

##### **1.1 1983 Tax Reform**

A comprehensive tax reform was required as old laws were outdated and unproductive in both revenue raising and efficiency raising

terms. Simple amendments by applying "shock treatment" strategy would have rendered the tax system even more complicated and inefficient. Therefore, comprehensive tax reform was decided instead of just "fine tuning" the existing tax system. In these regards, five new laws were passed : a Tax Procedures Acts, an Income Tax Act, a Value Added Tax Act, a Property Tax Act, and a Stamp Duty Act. In order to render the tax reform more efficiently, trade tariffs were also revised.

Multiple objectives were assigned to the tax reform, namely<sup>1</sup>:

**a. Increasing revenue-raising capacity (stabilization effect)**

As already been pointed out in the previous section, the need to raise non-oil domestic tax revenue in order to render fiscal revenues less dependent on oil revenues. In the actual adverse oil developments reinforced this need, thus, the resource mobilization objective turned out to be the imperative one in the short term.

**b. Enhancing economic efficiency in resource allocation (growth effect)**

The adjustment program aimed at maintaining financial stability while improving resource allocation. Thus, the tax reform, as a major component of the adjustment program, aimed at restructuring the econo-cumbersome and inefficient tax system.

Apart from the above mentioned two main objectives which will be the focus of subsequent analysis, the tax reform was also designed to improve equity in income distribution and increase enforceability of tax laws.

**c. Improving equity in income distribution (equity effect)**

Both horizontal and vertical equity aimed as tax system is the main instrument in affecting income redistribution. In this regard, the "ability to pay" principle is a widely approved standard of equity in the tax reform.

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#### **d. Increasing enforceability of tax laws**

It was essential for the tax reform's success that the administrative efficiency and taxpayer's compliance be enhanced, as they were pre-requisites for the achievement of the first three objectives.

##### ***Features***

In order to achieve consistency among the above mentioned objectives, which are potentially contradictory, the design of tax reform was elaborated keeping in mind that these contradiction must be minimized.

The tax reform was characterized by following "mutually reinforcing" features:

1. "Broad base - low uniform rates"

This feature characterized the whole range of the tax modifications consisting in reduction of higher marginal nominal rates while the overall tax structure was flattened. Simultaneously, the tax base was broadened encompassing as many elements as possible, taking under consideration essential, institutional and social constraints.

2. "Self assessment" versus "official assessment"

The tax payer was rendered more responsible as the new law (Tax Procedure Law) requires all persons subject to taxation to file tax returns and to calculate the tax due ("self assessment"). The consequent payment would be final, unless an audit were conducted and an official assessment were issued. Thus, by moving towards a "self assessment" of tax liability the direct contacts between taxpayers and tax officials were reduced and, consequently, the possibility of "bargaining" was lessened. Simultaneously, tax administration costs were reduced. The conjunction of the "self assessment" feature with an efficient audit and sanction system was sought to increase compliance.

3. "Simplification" of the tax system

The old tax system was extremely complicated as a result of a "fine tuning" of both the tax rates and the tax base. In order to achieve

greater enforceability of the tax laws, the new tax system was simplified as much as possible by reducing the number of the different tax rates and tax reductions.

## **1.2 Taxation Acts of 1994**

On November 9, 1994, the Government introduced four new tax acts amending the existing tax legislation. The main purpose of these acts were to strengthen the tax base within the government revenue structure, and to adapt taxation to the increasing pace of economic change as a result of globalization. Over the years, national development has brought about rapid changes. Coupled with the ongoing trend of globalization in many fields of business, these developments have necessitated changes in tax legislation because the existing tax acts had become inadequate, not fully covering all types of business operations. In addition, it was also necessary to bring Indonesia's tax regulations in line with those of other countries, particularly in ASEAN. The four new tax acts, effective from January 1, 1995, cover the following areas: general provisions and procedures regarding taxation; income tax; value added tax on goods and services and luxury sales tax; and land and building tax.

The new acts are aimed at:

- (a) Improving national self-reliance on government revenues and development financing;
- (b) Promoting equity in development and investment throughout Indonesia, with particular emphasis on remote and least developed areas;
- (c) Supporting export growth, particularly for non oil-gas commodities, manufactured goods, and services, with the purpose of strengthening foreign exchange earnings;
- (d) Promoting the development of small-scale businesses and supporting poverty alleviation;
- (e) Supporting human resources development and advancement in science and technology;

- (f) Helping the conservation of the ecosystem, Indonesia's natural resources, and the environment;
- (g) Providing more equitable tax treatment and improved protection of taxpayer rights;
- (h) Creating a cleaner, more efficient taxation apparatus, providing better service to taxpayers, and simplifying procedures and facilities for compliance with tax obligations; and
- (i) Improving the enforcement of taxation laws and regulations.

These tax acts lay down a stronger, more flexible legal foundation for the taxation system, and therefore are expected to be able to keep pace with future developments in the global economy.

## **II. Financial Instruments and Taxation of Financial Instruments**

### **2.1 The Role of Financial Sector**

Progressing from its infancy at the beginning of first long-term development 25 years ago, the Indonesian financial sector has become essential in financing the country's development. During the early years of development, the Government policies initially were aimed at nurturing national banks and non-bank financial institutions by opening new opportunities, encouraging consolidations and mergers and allowing a limited level of competition. A number of foreign institutions also commenced operations in Indonesia during this period. New products, improved efficiency and professionalism began to develop steadily in Indonesia's financial sector.

Prior to 1983, Indonesia's financial system was extremely shallow and markets were underdeveloped and tightly regulated like most developing countries. Although the system was effective in rechanneling oil revenues to support sectoral development, it hampered the mobilization of private domestic savings and led to distortions in allocation of funds. The regulatory authority of government permeated the entire span of financial sector endeavors. Market entry was tightly controlled and the lending activities of banks were highly compartmentalized. The seven state banks were required to comply with ceilings for deposits and lending rates and credit allocation was administered.

Beginning in 1983, the liberalization of financial system was designed to :

1. Stimulate private sector savings;
2. Improve allocative efficiency of financial resources; and
3. Make monetary policy management more effective. In this regard, the financial reforms in Indonesia has been carefully phased and only gradually implemented. We began with interest rate liberalization in June 1983 as key measures, then followed by the forms of institutional structure in October 1988, credit system in January 1990, prudential regulation in February 1991, legal framework in March 1992, banking policy improvements in May 1993, and capital market act in November 1995. The thrust of series of financial reforms is directed toward the achievement of higher efficiency in the mobilization and channeling of funds to various feasible investment projects. This would entail the development of a safe and sound financial sector. By enhancing its role in financial intermediation, the financial sector is expected to be able to support the bulk of the financing needs for the economic development.

## **2.2 Financial Instruments**

In line with accelerating developments of Indonesian financial markets, financial instruments utilized in the market are increasingly varied, especially since the banking deregulation of June 1983 was conducted. Monetary management was based on indirect instruments such as money market operation and abandoned the use of credit ceilings.

The participants in the money market are primarily commercial banks, non-bank financial institutions (NBFIs), and the central bank. Commercial banks are by far the most important participants as buyers and sellers of money market instruments. NBFIs are involved in a wide range of financial activities which include becoming dealers of securities. The primary function of a dealer is making a market for securities by maintaining an active position in most maturities position. While commercial banks are the largest participants in the money market, the central bank is ultimately the most important participant because of its position as the manager of the nation's money supply, although the

central bank has no liquidity problem because of its ability to print money. Meanwhile, to date, the central government has not issued any financial instruments.

Generally, money market instruments are sold to investors on a discount basis. Since they pay non-coupon interest, the income of investors is the difference between the purchase price and the face value of the paper. The money market acts as an intermediary between banks and the monetary authority, among banks themselves, and also between banks and their clients. It is a market through which banks surpluses and deficits of liquid funds are offset against one another.

Specifically, financial instruments in Indonesia are as follows:

### ***2.2.1 Money Market Instruments***

#### ***a. Banking Deposits***

Basically, this instrument is a form of investment by the general public in banks that form the largest base of funds managed by banks in their operational activities. Traditionally, these instruments are Demand deposits, Time deposits, and Savings, whether in rupiah or foreign currencies.

#### ***b. Securities***

In the Indonesian banking world, several securities have been introduced that are frequently traded in the framework of utilizing idle funds or in reverse, in order to obtain additional funds. Starting in February 1984, as part of its new monetary control system, Bank Indonesia introduced a new central bank certificates called Sertifikat Bank Indonesia (SBI) to banks and NBFIs as a means of mopping up excess reserve. SBI is a rupiah denominated bearer certificates under a discount system by Bank Indonesia as a short term debt instrument. SBI was introduced with three main objectives. Firstly, as a monetary policy instrument, especially for monetary contraction; secondly, as a money market instrument; and thirdly, as an alternative opportunity for banking system to invest temporary excess reserves.

As a follow up, Bank Indonesia introduced money market securities as an additional monetary instruments in February 1985, namely

Surat Berharga Pasar Uang (SBPU). There are two types of SBPU. The first type is the promissory note which can be issued in connection with credit extended by bank or a NBFI to finance a specific transaction or in the framework of interbank borrowing. The second type is a trade bill which is drawn by one party and accepted by another party in connection with a specific transaction whereby the drawee and/or the drawer are customers of a bank or NBFI. It can be issued also as an instrument drawn by customer of a bank or NBFI and accepted by bank or NBFI in connection with a credit to finance a specific transaction. It should be noted that there are many money market instruments but only SBIs and SBPUs can be rediscounted by Bank Indonesia either directly or through an appointed securities house.

Other money market instrument is Certificates of Deposit (CD). CD was first introduced in 1977 as a part of the effort to develop money market, especially the discount market. CD can be issued by commercial banks and non-bank financial institutions. As in the case of time deposits, CDs are not payable before maturity date. However, CDs are negotiable and can be sold in a secondary market. CDs are denominated only in rupiah and a license should be obtained from Bank Indonesia by bank prior to issuance.

Indonesian money market was also enlivened by rapid developments of commercial papers (CP) and Medium Term Notes (MTN), in line with increasingly integrated domestic financial markets with international financial market, particularly in the last 3 years. CPs may be in the form of bearer notes or promissory notes which can be traded in the commercial paper market. Meanwhile, MTNs are basically medium term securities (1 - 3 years), encompass Banking Acceptance (BA), Flexible Rate Notes (FRN) and Flexible Rate Certificates of Deposits (FRCD).

Beyond these instruments, in line with the faster growth of derivative transaction activities in international financial market recently, many kinds of derivative instruments are utilized by market players in Indonesia. In view of the underlying instruments, derivative transactions may be based on changes in exchange rate, interest rate, share value, commodity value, and selected indexes. Transaction mechanism may be Forward, Future, Swap, Option and Warrant.

### **2.2.2 Capital Market Instruments**

In line with rising economic activities, Indonesian capital markets have been very buoyant in the last 3 years. Several policies on foreign direct investment, especially a regulation on stocks ownerships of non-resident, have indirectly resulted positive effects on domestic capital market development. These regulations were also expected to spur activity on the capital market by encouraging foreign investment companies to go public. In this regard, the widely developed financial instruments are stocks and bonds, whether issued the domestic or foreign private sector.

## **2.3 Taxation of Financial Instruments**

### **2.3.1 Income Tax**

In formulating national tax policies, regarding the interpretation of income in the compilation of income tax laws, it was agreed that income subjected to tax is additional economic capabilities that are realized. In juridical terms, the interpretation of tax objects in the Income Tax Law of 1984, Article 4, verse (1) was amended by the Income Tax Law of 1994, as follows:

Income is every additional economic capability which the tax payer receives or obtain, whether from Indonesia or abroad, that may be used for consumption or to increase the wealth of the relevant tax payer, in whatever name or form, including:

- (a) Compensation or fee related to work or services received;
- (b) Award from lotteries or work, and recognition;
- (c) Company profits;
- (d) Profit from sales or transfer of property;
- (e) Reimbursement of tax payment imposed;
- (f) Interest, including premium and discount;
- (g) Dividend;
- (h) Royalty;
- (i) Rent;
- (j) Installment payment received;
- (k) Profit from debt release;
- (l) Profit from exchange rate differentials;
- (m) Excess difference from revaluation of assets;

- (n) Insurance premium;
- (o) Fees obtained from associations whose members comprise Tax Payers who conducted free business or work; and
- (p) Additional net wealth originating from income that has not been taxed.

Meanwhile, the tax rates imposed on Taxable Income for domestic Tax Payers and permanent businesses are as follows:

<i>Level of Taxable Income</i>	<i>Tax rate</i>
up to Rp. 25 million	10%
above Rp. 25 million to Rp. 50 million	15%
above Rp. 50 million	30%

It should be noted that by Government Regulation, the highest rate above may be lowered to at least 25 per cent.

### ***2.3.2 Taxation of Financial Instruments***

With respect to the taxation of financial instruments, the tax objects determined may be broadly explained in Table 5.1. Basically, public savings that are channeled through money market and capital market is a source of fund for carrying out development, so that taxation of the income originating from public savings is given separate treatment. The tax imposed, including its nature, size and payment regulations are arranged separately by Government Regulations. This consideration underlay the government's postponement of tax on savings and deposit interest income since January 1984 to October 1988.

In line with the Tax Acts, the tax for domestic tax payers or permanent businesses, is fixed at 15 per cent of gross total and is final on income from (i) interest, including premium, discount, and fees related to the guarantee of debt reimbursement, and (ii) dividend. Meanwhile, for the tax payers abroad other than permanent businesses in Indonesia, the rate of tax imposed is 20. per cent, or in accordance to tax treaties between Indonesia and other countries to avoid double taxation.

It should be noted that interest income received by banks are not imposed at 15 per cent tax, although it was calculated as a portion of

**Table 5.1**  
**TAXATION OF FINANCIAL INSTRUMENTS**

No.	Financial Instruments	Percent of Tax (current rate)	Last Date of Amendments	Remarks
<b>A. Money Market Instruments</b>				
1.	Banking Deposits a. Time Deposits b. Savings c. Demand Deposits	<b>Percent from interest rate (final in nature)</b> a. Resident taxpayer: 15% of the gross amount. b. Non resident taxpayer other than permanent establishment : 20% or the rate based on the prevailing agreement on the avoidance of double taxation (tax treaty).  <b>Percent from discount rate (final in nature)</b> a. Resident taxpayer: 15% of the gross amount. b. Non resident taxpayer other than permanent establishment : 20% or the rate based on the prevailing agreement on the avoidance of double taxation (tax treaty).	January 1, 1995 (under Taxation Laws of 1994, dated November 9, 1994)	The imposition of tax has been carried out since October 27, 1988 (previously, under postponement period: from January 1984 until October 1988)
2.	Securities a. Bank Indonesia Certificates (SBI) b. Money Market Securities (SMPU) c. Certificates of Deposit d. Commercial Papers e. Medium Term Notes f. Derivative Instruments	<b>Percent from premium or discount (final in nature)</b> a. For resident taxpayer: 15% of the gross amount. b. For the non resident taxpayer other than permanent establishment : 20% or the rate based on the prevailing agreement on the avoidance of double taxation (tax treaty).  <b>Percent from dividends (final in nature)</b> a. For resident taxpayer: 15% of the gross amount. b. For the non resident taxpayer other than permanent establishment : 20% or the rate based on the prevailing agreement on the avoidance of double taxation (tax treaty).  <b>Percent from sales transaction (final in nature)</b> a. For all sales transaction of shares: 0.1% of the gross amount. b. For sales transaction of founders' shares, except those of business partnership companies owned by venture capital companies: 5.1% of the gross amount.	January 1, 1995 (under Taxation Laws of 1994, dated November 9, 1994)	SBI has been operated as a money market instrument since February 1984. Meanwhile, SMPU has been operated as a money market instrument since February 1985.
3.	Bonds	<b>Percent from premium or discount (final in nature)</b> a. For resident taxpayer: 15% of the gross amount. b. For the non resident taxpayer other than permanent establishment : 20% or the rate based on the prevailing agreement on the avoidance of double taxation (tax treaty).	January 1, 1995 (under Taxation Laws of 1994, dated November 9, 1994)	A premium occurs, if bonds were sold above its nominal value, whereas a discount occurs, if bonds were bought below its nominal value. Said premium constitutes an income for party who has issued bonds, and discount constitutes an income for the purchaser of the bonds.
4.	Stocks 4.1. Dividends  4.2. Capital Gains	<b>Percent from dividends (final in nature)</b> a. For resident taxpayer: 15% of the gross amount. b. For the non resident taxpayer other than permanent establishment : 20% or the rate based on the prevailing agreement on the avoidance of double taxation (tax treaty).  <b>Percent from sales transaction (final in nature)</b> a. For all sales transaction of shares: 0.1% of the gross amount. b. For sales transaction of founders' shares, except those of business partnership companies owned by venture capital companies: 5.1% of the gross amount.	January 1, 1995 (under Taxation Laws of 1994, dated November 9, 1994)	Under the previous Income Tax Law, gains from sale or transfer of property (capital gains) were taken into account in the calculation of the income tax base.

*Notes : Interest on deposits and savings as well as discount on securities (including SBI) which are sold to and owned by banks shall not be subject to income tax levy of 15%.  
The imposition of income tax shall be done through the annual tax returns of the banks receiving the interest or discount.*

annual income which is taxed. Meanwhile, several items not included in the tax objects are, *inter alia*:

- (a) Dividend or profit portion received or obtained by limited companies as domestic tax payers, cooperatives, foundation or similar organizations, state enterprises, or regional state enterprises, from equity participation in companies set up and located in Indonesia;
- (b) Bond interest received or obtained from companies whose main activities are investing, reinvesting, or securities trading (mutual funds); and
- (c) Income received or obtained by venture capital companies which is a part of profit from subsidiary companies established and conducting their activities in Indonesia, with the condition that the subsidiary companies are small, medium or are conducting activities in business sectors determined by the Finance Minister; and their shares are not traded in stock exchanges in Indonesia.

Similar to the tax treatment of interest income, imposition of income tax on sales transaction of stocks in capital market is given separate treatment. In this respect, for every individual or corporation that conducts sales transaction of stocks in the stock exchange, a final income tax is collected from income received or obtained from that transaction. Bearing in mind that there are 2 types of stock traded in the capital market — founder stocks and non founder stocks — that have very large variations in their income levels, the income tax is determined as follows:

- (a) On all sale transactions of stocks, whether founder stocks or non founder stocks, a 0.1 per cent income tax is imposed on the gross total of sale transaction value.
- (b) On sale transaction of founder stocks, an additional 5 per cent income tax is impose on gross total of sale transaction value.

The determination of the size of the income tax is done by considering its final imposition and by observing the development of capital markets in Indonesia. The additional 5 per cent income tax will not be imposed when the shares sold are owned by venture capital companies as the founder of subsidiary companies.

### **III. Economic Impact of Taxation of Financial Instruments**

Some studies in taxation, especially taxation of financial instruments highlight the economic impact as a result of taxation. The study conducted in the beginning of 1990's (Tanzi, 1995) concludes that taxation of financial instruments can lead to an unfavorable impact on the development of financial sectors. The taxation can distort the market function and increase the capital cost, which in the long run it can impede the capital formation and economic development. The taxation can also cause the distortion in the financing structure, as a result of the shifting among financial instrument holdings. Meanwhile, the impact of taxation on market shock, both domestically and internationally are difficult to prove, while the role of tax revenue as the source of government income is still unpredictable regarding to the statistic limitation. It needs to state that the impact of taxation on the sources allocation, particularly on the domestic savings, has been studied since the 1970's.

In this paper, the observation on the economic impact as a result of taxation on financial instruments in Indonesia is based on several main issues, which are:

- (i) Does the tax revenue from financial instruments have a considerable potential in increasing the government revenue;
- (ii) Does the taxation of certain financial instruments influence the public behavior in using other financial instruments;
- (iii) What is the impact of taxation of other financial instruments on the national savings.

#### **3.1 The Taxation Potentials on Financial Instruments**

In the future, with increase of a country's income per capita, the government expenditures as a proportion of Gross Domestic Product (GDP) will increase. The increased expenditures will necessitate to be followed by the increase of government revenue, particularly from taxation. To ensure the increase of taxation revenue, it is a must to create an efficient taxation system which is marked by several points: its flexibility and competency (effectiveness) to transform income distribution in society. In this context, flexibility means that the tax base

and rate should be set so that tax revenue change automatically with changes in GDP.

Indonesia as one of developing countries continue creating an efficient system of taxation through a series of tax reforms, i.e. issued in 1983, 1992, and 1994. As explained in the previous section, the background of tax reforms is government efforts to lessen dependency on oil-tax revenue, and to start counting on non-oil domestic tax revenue. Therefore, government always tries to perfect tax regulations, including Income Tax, Value-added Tax, and Property Tax. The impact of this effort is shown in Table 5.2 reflecting improved performance of tax revenue.

Total tax revenue of non-oil sectors as a percentage of total GDP rose from 5.99 per cent in 1982/83 to 10.20 per cent in 1991/92. Meanwhile, the income tax ratio to GDP and value-added tax ratio to GDP also increase from 2.68 per cent and 1.11 per cent in 1982/83 to 4.06 per cent and 3.78 per cent in 1991/92.

In comparison with some other Asia countries, the Indonesian tax revenue to GDP ratio is relatively low (see Table 5.3). As an example, in 1992 the average of tax revenue to GDP ratio in the three ASEAN countries (Malaysia, Singapore, Philippine) is 17 per cent, higher than in Indonesian which is only 10.2 per cent. Besides, the income tax to GDP ratio in those three countries are higher (6.8 per cent) compared to the rate in Indonesia, which is only 4.06 per cent. Based on the above information, there is still some potentials to increase the tax performance (including income tax).

Taxation on financial instruments are treated as a part of income tax. The characteristics of the taxation on financial instruments are final in majority. It means that taxation will be directly imposed on every financial transaction which gives an income for the involved parties, so that government can accept the tax payment faster. Tax revenue from financial instruments in the reality depends on the transaction development of each financial instrument. The more transactions conducted, the higher tax revenue collected. It should be noted that interest income received by banks is not imposed a 15 per cent final tax, but it is calculated as a part of annual income subjected to tax. Followings describe the classification of taxation of financial instruments and their potentials in increasing tax revenue.

### **3.1.1 Tax on banking deposits interest rate**

The tax revenue from this financial instrument (banking deposits) depends heavily on the amount of commercial banks' outstanding funds of which includes time deposits, savings, and demand deposits. Since 1990 to 1995, the amount and the growth of commercial banks' outstanding funds (in Rp.) and foreign exchange always displayed an increase, from Rp.83.15 trillion in 1990 to Rp. 214.76 trillion in 1995, while the annual growth rate during that period reached 21 per cent. The growth and amount of commercial banks' outstanding funds are related to the financial deepening level or the level of monetization in the economy which subsequently are determined by the development of financial sectors.

After the banking deregulation in 1988, M2/GDP ratio increased in 1990 up to 44.4 per cent, but the ratio is relatively lower compared to developed countries or other ASEAN countries. In turns, M2/GDP ratio in USA, Germany, and Japan amounts to 61.2 per cent, 65.4 per cent, and 115.5 per cent, while in other ASEAN countries, such as Malaysia, Singapore and Thailand, the ratios amount to up than 70 per cent:

According to the report of taxation on interest/discounts from time deposits, certificate of deposits, savings, and Bank Indonesia certificates during 1992 - 1995 (reported by banks to Bank Indonesia), tax on those financial instruments amounts to Rp.1.2 trillion (not an official number issued by Directorate General of Tax) or 8.31 per cent of total income tax. This is shown in Table 5.4.

In the future, due to better integration between domestic financial markets and international financial markets, and globalization, it is expected that the total commercial banks' outstanding funds will increase, so that tax revenue collected from interests of time deposits, demand deposits, and savings will gradually increase.

### **3.1.2 Taxation on Money Market Instruments**

#### **a SBI and SBPU**

One of money market instruments issued by Bank Indonesia are SBIs and SBPUs. SBI is a certificate issued by Bank Indonesia and can be used as a main instrument to draw liquidity from public, especially

Table 5.2  
NON-OIL TAX REVENUE  
(Billions of Rp.)

	Income Tax	I. T. Growth	I. T. as % of T. T.	I. T. as % of GDP	VAT	VAT Growth	VAT as % of T. T.	VAT as % of GDP	Property Tax	P. T. Growth	P. T. as % of T. T.	P. T. as % of GDP	Other Tax %	Total Tax	Total Tax Growth	I. T. as % of GDP	Total GDP
<b>REPELIT A III</b>																	
1979/80	792.50	35.22	2.07	2.07	329.40		14.64	0.86	74.60		3.32	0.19	1,053.40	2,249.90		5.86	36,373.80
1980/81	1,112.20	40.34	38.46	2.14	460.70	39.86	15.93	0.89	91.90	23.19	3.18	0.18	1,226.90	2,891.70	28.53	5.56	52,011.60
1981/82	1,367.10	22.92	42.09	2.29	533.90	15.89	16.44	0.89	100.30	914.00	3.09	0.17	1,247.10	3,248.40	12.34	5.44	59,745.90
1982/83	1,706.50	24.83	44.76	2.66	707.60	32.53	18.56	1.11	112.50	12.16	2.95	0.18	1,285.70	3,812.30	17.36	5.98	63,607.10
1983/84	1,932.30	13.23	43.98	2.30	830.60	17.38	18.91	0.99	144.90	28.80	3.30	0.17	1,485.70	4,393.50	15.25	5.23	83,959.60
<b>REPELIT A IV</b>																	
1984/85	2,121.00	9.77	44.30	2.35	878.00	5.71	0.05	0.97	180.60	24.64	3.77	0.20	1,608.70	4,768.30	8.99	8.99	90,314.00
1985/86	2,313.00	9.05	34.96	2.33	2,326.70	165.00	35.16	2.35	224.50	24.31	3.39	0.23	1,752.70	6,616.90	38.19	38.19	99,077.80
1986/87	2,705.00	(1.84)	29.70	2.13	2,900.10	24.64	37.93	2.73	190.00	-1	2.49	0.18	2,285.10	7,645.70	15.55	15.55	106,350.10
1987/88	2,683.40	17.30	30.34	2.06	3,390.40	16.91	38.62	2.63	275.10	44.79	3.13	0.21	2,450.50	8,779.40	14.83	14.83	129,061.70
1988/89	3,949.40	48.38	33.16	2.65	4,505.30	32.88	37.83	3.03	424.20	54.20	3.56	0.28	3,029.60	1,908.50	35.64	35.64	148,889.50
<b>REPELIT A V</b>																	
1989/90	5,487.70	38.95	35.58	3.17	5,835.70	29.55	0.02	3.37	590.40	39.18	3.83	0.34	3,510.80	5,425.60	29.53	29.53	173,141.60
1990/91	6,755.30	23.10	34.26	3.31	7,462.70	27.86	37.84	3.65	811.00	37.36	4.11	0.40	4,690.70	9,719.70	27.84	27.84	204,253.70
1991/92	9,580.40	41.82	39.82	4.06	8,925.10	19.61	37.10	3.78	874.60	7.84	3.64	0.37	4,677.30	24,058.40	22.00	22.00	235,929.90
1992/93	11,912.60	24.34	40.90	4.46	10,714.40	20.03	36.78	4.01	1,100.60	25.84	3.78	0.41	5,401.40	29,129.00	21.08	21.08	267,102.50
1993/94	15,273.10	28.21	43.84	4.91	12,282.30	14.63	35.26	3.95	1,534.30	39.41	4.40	0.49	5,746.40	34,836.10	19.59	19.59	310,959.30
<b>REPELIT A VI</b>																	
1994/95	18,842.90	23.37	47.02	5.38	13,238.60	7.79	0.01	3.78	1,628.70	6.15	4.06	0.47	6,364.20	40,074.40	15.04	15.04	350,062.50

Notes:

\* / : Import Duties, Excise Tax, Export Tax, Other Tax  
P. T. : Property Tax  
VAT : Value Added Tax  
Total Tax: Total Non-oil Tax Revenue  
I. T. : Total Tax  
GDP : Gross Domestic Product

Table 5.3  
TAX TO GDP RATIO IN SOME ASIA COUNTRIES  
(In Per Cent)

	1990	1991	1992
<b>INDONESIA 1/</b>			
Tax Revenue GDP	9.65	10.20	10.90
Tax on Inc., Profit, Cap. Gains GDP	3.31	4.06	4.46
<b>PHILIPPINES</b>			
Tax Revenue GDP	14.14	14.65	15.44
Tax on Inc., Profit, Cap. Gains GDP	4.60	4.88	5.18
<b>MALAYSIA</b>			
Tax Revenue GDP	19.61	21.20	20.80
Tax on Inc., Profit, Cap. Gains GDP	6.05	6.44	7.42
Tax Revenue Non-Oil GDP	17.32	18.07	18.49
<b>SINGAPORE</b>			
Tax Revenue GDP	15.10	15.99	16.77
Tax on Inc., Profit, Cap. Gains GDP	6.74	7.20	7.89
<b>SOUTH KOREA</b>			
Tax Revenue GDP	15.80	14.92	15.70
Tax on Inc., Profit, Cap. Gains GDP	5.93	5.21	5.85
<b>INDIA</b>			
Tax Revenue GDP	10.82	10.94	11.17
Tax on Inc., Profit, Cap. Gains GDP	2.01	2.42	2.59

Note:

1/ Fiscal Year

Source: Government Finance Statistics Yearbook, 1994, IMF  
Nota Keuangan & RAPBN 1995/96

from banks, while SBPU is a short-term money market security which can be traded in money market, issued by either banks' customers or banks. The purchase of SBPUs conducted by Bank Indonesia intends to assist banks experiencing a drain in liquidity or to increase banks' liquidity. Selling and purchasing of these two certificates are conducted in an auction which use discount rate.

Some data show that auctions of SBIs in the primary market since 1991 to 1995 have been increasing, particularly in 1993 (Rp. 142.14 billion) of which related to the Bank Indonesia efforts to lessen negative impact of foreign fund flows. Up to the present time, either in primary markets or secondary markets, most of SBI transaction participants are banks, so that most of taxes on SBI discounts are not final 15 per cent. The discounts received by banks will be calculated in the annual income subjected to tax.

In the future, the strives for developing secondary markets of SBIs and SBPUs are expected to be able to motivate market participants, so that they are more interested to participate in these markets, which in its turn will increase the volume and value of either SBI and SBPU secondary market transactions.

#### ***b. Commercial Paper***

Recently, one of the securities which has been outstandingly developed is Commercial Paper (CP) of which the position of this commercial paper (Rp. and foreign exchange) reached up to Rp. 1.3 trillion and USD1.4 billion in the end of March 1996, while it only amounted to Rp. 752.4 billion and USD 756 in November 1995. In one side the increase of CP issuance is motivated by the development of business world of which needs immediate short-term funds. Meanwhile, the credits from banks have certain limitations which should be fulfilled, and the process itself takes a longer time. In Indonesia, the CP issuance is conducted by enterprises while investors are enterprises and banks.

CP markets can be classified into primary market which functions as financing needs, and secondary market utilized by investors to play arbitrage. In CP markets from other countries, such as USA and Japan, their secondary CP markets heavily depend on supporting infrastructures. In Japan, turnovers in its secondary markets are very high with their considerably short-term transactions.

Table 5.4

**THE REPORT OF TAXATION OF INTEREST/DISCOUNTS  
ON TIME DEPOSITS, DEMAND DEPOSITS, SAVINGS,  
CERTIFICATE DEPOSITS AND BANK INDONESIA'S  
CERTIFICATES  
January 1992 - April 1995**

(Millions of Rupiah)

Periods	Total
1992	1,333,707.3
1993	1,173,036.2
1994	1,033,947.2
1995 (until April)	430,139.4

Source: Money Market and Clearing Department, Bank Indonesia.

In the long-run, regarding to several rules of CP issued by Bank Indonesia and the more integrated domestic and international financial markets, CP markets in Indonesia are expected to be more developed, either in its first markets or secondary markets. Thus in its turn, tax on CP discounts will improve respectively.

### ***c. Taxation of Capital Market***

According to World Bank's Policy Research Working Paper (May 1995), Indonesian capital market stands-out as one of the most rapidly developing markets in the world based on measures of size, liquidity, and international integration (based on observations over 41 countries). In other words, the volume and amount of transactions in Indonesia's capital market has undergone a considerable increase. Related to this matter, tax on shares transactions is a potential tax resource in accelerating the government revenue.

Regarding the estimation of tax on shares transactions, the tax revenue coming from shares transactions in 1995 amounts to Rp. 32.35 billion or 0.17 per cent of income tax during the period of 1993/94. Meanwhile in January, February and March 1996, the estimation of tax on shares transactions are Rp. 5.03 billion, Rp. 4.77 billion, and Rp. 4.98 billion.

Although in the current condition, Indonesian capital market is not as highly developed as Singapore and Korea, but the prospect of capital market in the future will increase, especially by allowing margin trading transactions and scriptless paper tradings. Obstacles which often appears in stock transactions at the present time will disappear automatically in line with scriptless paper tradings. In margin trading transaction, an investor can participate in capital market utilizing larger funds than his owned funds. Those two conditions can increase the volume and the stock transaction value in capital market, which in their turns will increase tax revenue on stock sale transactions.

### **3.2 The Impact of Taxation of Banking Deposits Interest Rate on Public Behaviour in Other Financial Instruments Holdings**

This part will discuss the impact of taxation of banking deposit interest rate on public behavior in stock holdings. Data in Table 5.5 shows that during the period of 1989 - 1995, the growth of commercial

banks' outstanding funds always increases, although since 1989 taxation on banking deposits interest rate has been imposed. The growth of commercial banks' outstanding funds in 1989 and 1990 even reached peaks, which were 44.9 per cent and 52.9 per cent. This condition was probably caused by the great impact of banking deregulation of 1988 which succeeded in mobilizing the growth of commercial banks' outstanding funds. As we know, banking deregulation of 1988 relaxed licenses to open new banks and bank offices, so that the increase number of banks and bank offices prevailed. Furthermore, due to the wider reaches of banking to public and the enhanced banking services (due to competitions), the amount of commercial banks' outstanding funds collected has been drastically increased.

The annual growth rate of commercial banks' outstanding funds during the period of 1983 - 1987 (before the imposition of taxation) is up to 23 per cent, while the growth rate in the period of 1989 - 1995 increases to 29 per cent. Thus, the impact of taxation on banking deposits interest rate is probably offset by the increase of commercial banks' outstanding funds due to the banking deregulation in 1988.

Meanwhile, there are several reasons which cause the unfavorable condition of capital market in Indonesia before 1987, which are:

1. Government through PT DANAREKSA tried to stabilize stocks price;
2. Non-availability of secondary markets causes stocks become non-liquid assets; and
3. Foreign investors are prohibited to purchase stocks in stock market. All of these conditions has caused the low growth of stock capitalization during the period of 1987 that is 0.0036 per cent (Table 5.5).

Reformation in capital market started in December 1987 by relaxing listing requirements, lessening the procedure of new stocks issuance, abolishing PT DANAREKSA's authority to limit stock price fluctuation, and allowing foreign investors to own 49 per cent of all outstanding stocks. The next reformation is to impose tax on banking deposits interest (equal returns for both stocks and deposits), to privatize stock trading and to limit BAPEPAM's functions as supervisor only, and to reopen stock trading for foreign investors (government's deregula-

Table 5.5

**MARKET CAPITALIZATION AND COMMERCIAL  
BANKS' OUTSTANDING FUNDS**

End of Periods	Market Capitalization (Billion Rp.)	Growth (%)	Com. Banks' Outstanding Funds (Billion Rp.)	Growth (%)
1986	139.780		23,511.00	
1987	139.785	0.0036	29,331.00	24.75
1988	197.266	41.12	37,510.00	27.89
1989	1,789.007	806.90	54,375.00	44.96
1990	13,220.970	639.01	83,154.00	52.93
1991	27,678.351	109.35	95,118.00	14.39
1992	24,873.096	-10.14	114,850.00	20.74
1993	70,251.180	182.44	142,679.00	24.23
1994	105,092.681	49.60	170,406.00	19.43
1995	153,514.053	46.07	214,764.00	26.03

Source: Indonesian Financial Statistics

tion package in December 1989). As a result, the capital market has increased rapidly which is marked by the increase of market capitalization growth reaching up to 806 per cent in 1989 and 639 per cent in 1990. During that period, the difference between the selling price at the primary market and stock nominal price is so far that many enterprises entered capital market. On investors' side, this may relate to the impact of psychological effect that is this new alternative investment is likely more profitable.

As mentioned above, in 1989 and 1990 the growth of commercial banks' outstanding funds drastically increased up to 44.9 per cent and 52.9 per cent. Under that condition, it can not be stated that the increase of market capitalization growth in 1989 and 1990 was resulted from the shifting of commercial banks' outstanding funds into capital market, due to taxation on the interest of banking deposits. During that period, each financial instrument underwent an outstanding increase. The high growth of commercial banks' outstanding funds was resulted from the impact of banking deregulation in 1988, although taxation on that funds interest was concurrently imposed. Meanwhile, the increase of capital market development is more as a result from several deregulations on capital market launched since 1987.

In 1991, an unfavorable condition prevailed in stock market due to market correction on stock price overvaluation in the period of 1989 and 1990, and this condition was worsened by the increase of interest rate which cause shifting of funds into money market, following tight money policy. In 1992, the condition of capital market started to improve due to the decrease of banking interest rate as result of government effort to loose liquidity in the economy. The development of capital market in the following years has been more determined by performance of go-public enterprises, interest rate, economic condition of industrial countries, and other fundamental factors.

From the above analysis, the conclusion drawn is that there is no indication reflecting the shifting of commercial banks' outstanding funds into capital market (stock) due to the taxation on the interest of banking deposits.

### **3.3 Economic Impact of Taxation of Financial Instruments on Domestic Savings**

#### **3.3.1 Methodology**

The analysis developed is basically aimed to know the impact of taxation of financial instruments on domestic savings. Basically, the analysis have been conducted since the 1950's, based on the Consumption Keynesian model. In that static analysis, the taxation on financial instrument was considered as not having significant influence on the allocation of resources. In the progress, in the 1970's, that kind of analysis faced challenges. Feldsein (1978) and Boskin (1978) argued that taxation of financial instruments has indeed a significant influence on capital accumulation and economic growth. In this respect, it has also been proved that the savings behavior is elastic to the impact of interest rate changes. Thus, the interest rate change as a result from taxation can give a strong dynamic impact on the domestic savings.

Ideally, to capture a total picture of the economic impact of taxation can be conducted through the use of simultaneous equation, either as a certain economic block or as a whole economic block. The use of single equation is considered rather difficult in capturing the economic impact of taxation because the taxation gives a relatively strong influence to the development of several economic variables. In this analysis, the "impact analysis" is conducted to see the impact of taxation of financial instruments on domestic savings. The basic idea of this analysis is the application of simulation with a certain scenario on the developed savings function.

The savings function is developed by using the Error Correction Model (ECM), while the scenarios applied are the base scenario and the non-base scenario. The base scenario is a scenario which its purpose is to see the impact of interest rate before subtracted by tax on domestic savings. The non-base scenario is a scenario displaying the impact of interest rate after subtracted by tax on the domestic savings. In this respect, the impact of taxation of financial instruments on domestic savings is measured from the deviation of savings behavior in the simulation with the non-base scenario to the base scenario. It should be noted that the simulation with the base scenario in this respect can be considered as reflecting the development of savings behavior suitable to its long-term trend. Quantitatively, the deviation reflects whether

the domestic savings will grow above or below its long-term trend.

The observation period is between 1969 - 1995, which is structurally classified into two periods : I (1969 - 1988) and II (1989 - 1995). The observation period I is a period when savings functions were developed. In this period, the taxation of financial instruments was not fully applied. The taxation on banking deposits particularly was postponed in the application, regarding to the fact that bank savings was a fund resource for financing development activities. Taxation of banking deposits interest rate, such as time deposits and savings, and other financial institution was applied since October 27th, 1988 and the updates were conducted in the end of 1994 through the new Tax Act. Thus, the impact analysis of taxation is conducted by applying a simulation with the base and the non-base scenarios in the observation period II.

### ***3.3.2 Factors Influencing Savings Formation in Indonesia***

The savings behavior in Indonesia is influenced by the variables of national income, financial deepening level, interest rate, and foreign savings components. In empirical tests, the impact of other variables, such as demography factors (by using dependency ratio) and term of trade has been tested, however, the result is not satisfying. The test of the influence of the above-mentioned variables also refers to the previous study on SEACEN countries<sup>2</sup>. Particularly in Indonesia, the impact of demography factors and the term of trade on savings behavior is not too significant. Generally, the conclusion of the test result in this paper is not much different with the result of the study.

The dependent variable used in the development of the savings function is gross domestic savings deflated by Consumer Price Index (1989/1990 = 100). In this respect, based on the statistic of national income, the proxy for gross domestic savings data is the difference between gross domestic capital formation (domestic investment) and the current account deficit in the balance of payment. It should be

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2. Source: Domestic Resource Mobilization in the SEACEN Countries, Y.M.W.B. Weerasekera, The SEACEN Centre, 1993.

noted that the above concept of capital formation does not include the stock changes. The proxy for income variable is national disposable income based on constant price (base year 1993). Financial deepening variable measured from M2 (national liquidity) to Gross Domestic Product (GDP) ratio. Meanwhile, the interest rate variable is the real interest rate. The proxy for real interest rate is weighted average of three-month deposits rate at deposits money banks of which corrected by the actual inflation level. Meanwhile, the proxy for foreign savings component is current account deficit to GDP ratio.

### ***3.3.3 The Result of Empirical Test***

#### ***a. Co-integration Analysis***

The co-integration concept was introduced by Granger and Weiss (1983) and was developed by Engle and Granger (1987). This concept states that two or more non-stationary variables will be cointegrated if the linear combination of those variables is stationary overime. If those non-stationary variables have been cointegrated, they cannot wander too far from each other. Rather, their long-run relationship is stable as required by economic theory.

In this study, the long-term relationships between variables of domestic savings, national income, financial deepening level, interest rate, and foreign savings component have been tested by using the co-integration test. The test was conducted by using the Johansen's Maximum Likelihood procedure (Johansen, 1988). Before starting the cointegration test, the first step needs to be done is to check whether each variables is stationary, in this respect they do not contain a unit root. Related to this, it will be observed the integration degree of each variable, by using statistic test "Augmented Dickey - Fuller (ADF). The test result of unit root entity at each variable can be viewed in Table 5.6.

Table 5.6 describe that under null hypothesis, the existence of unit root in the level of variables of LSTR, LYDR, and LFIN is not rejected, but it is rejected in the first difference form. Meanwhile, under null hypothesis, the existence of unit root in the level of variables of RR and SF is rejected. The result concludes that the level of variables of LSTR, LYDR, and LFIN are non-stationary, but the variables in first difference are stationary. It can be said that LSTR, LYDR, and LFIN are integrated

**Table 5.6****UNIT ROOT-TEST RESULT**

<b>Variable</b>	<b>ADF</b>	<b>DW</b>	<b>n</b>	<b>Integration</b>
LSTR	-2.44	2.09	1	I(1)
LYDR	0.63	2.2	1	I(1)
LFIN	-1.38	1.91	1	I(1)
RR	-2.87	1.98	1	I(0)
SF	-3.18	1.97	1	I(0)
$\Delta$ LSTR	-3.52	2.13	1	I(0)
$\Delta$ LYDR	-4.22	2.05	1	I(0)
$\Delta$ LFIN	-2.90	1.95	1	I(0)

Notes: LSTR is domestic savings, LYDR is national income, and LFIN is financial deepening level which all is in the log level form. RR is interest rate, SF is foreign savings component, and both variables are in the level form. Meanwhile  $\Delta$ LSTR,  $\Delta$ LYDR, and  $\Delta$ LFIN are the transformation of LSTR, LYDR, and LFIN in the first difference. The McKinnon critical value in the ADF test for the forms of level 1 per cent = -3.83; 5 per cent = -3.03; 10 per cent = -2.66, while the forms of first difference 1 per cent = -3.86; 5 per cent = -3.04, 10 per cent = -2.66. DW is the result of DW statistic test result, n is the length of lag period, integration is the amount of integration degree in the stationary condition.

of order one, while RR and SF in the level form are stationary or integrated of order zero.

Next step is to test the long-term relationship between variables of domestic savings, national income, financial deepening level, interest rate, and foreign savings component. By using the Johansen's Maximum Likelihood procedure, test result is shown in Table 5.7.

Table 5.7

## CO-INTEGRATION TEST RESULT

Lik. Ratio (LR)	critical value 5% (**)	critical value 10% (*)	Ho	H1
92.76 **	68.52	76.07	$r = 0$	$r = 1$
49.11 *	47.21	54.46	$r \leq 1$	$r = 2$
21.31	29.68	35.65	$r \leq 2$	$r = 3$
9.04	15.41	20.04	$r \leq 3$	$r = 4$
1.74	3.76	6.65	$r \leq 4$	$r = 5$

From the above table, it can be seen those five variables are cointegrated and have two cointegration vectors. In this respect, cointegration equation (normalized equation) in the period 1969-1988 has a result as follows.

$$\begin{array}{lcl} \text{LSTR} & = & 4.774 + 0.668 \text{ LYDR} + 1.399 \text{ LFIN} - 0.001 \text{ RR} - 12.400 \text{ SF} \quad \dots (1) \\ \text{Std. of Dev. :} & & (0.199) \quad (0.302) \quad (0.003) \quad (1.138) \\ \text{t- statistic :} & & (3.357) \quad (4.632) \quad (-0.333) \quad (-10.896) \end{array}$$

Based on this result, conclusion can be drawn that savings formation in Indonesia in the long-term is strongly influenced by national income, financial deepening level, and foreign savings component, which in line with the past several studies. Although the influence of interest rate in the long-run appears in the cointegration equation, but the t statistics of interest rate is very low, so the influence is consider insignificant. It is reasonable that Indonesian financial sector in the period before banking deregulation of June 1st 1983 experienced financial repression, which is caused by the interest rate ceiling policy on April 1974. In that condition, fund mobilization from the public was not motivated, which further impeded domestic savings formation. It needs to state that in the co-integration test mentioned above, it has been tried out several combinations of variables predicted to be cointegrated, such as demographic factor and terms of trade, but the result was not satisfying.

### ***b. Error Correction Model***

After testing the existence of cointegration among the variables in equation (1), according to Engle and Granger (1987), the next step is

to conduct a test by using an error correction model (ECM) approach, which is aimed to see the short-run dynamic adjustment among those variables. The ECM approach classifies two behaviors of domestic savings formation which are the long-term behavior and the short term behavior.

In the development of that model using the ECM approach, the lagged value (ECM (-1)) of the long-run random disturbance term resulted from equation (1) will appear in equation (2) as the error-correction coefficient together with short-run determinants of savings function. At a more intuitive level, the presence of ECM (-1) in equation (2) reflects the presumption that actual savings formation does not always equal what public desires to hold on the basis of the long-run factors specified in equation 1. Therefore, in the short run, the public adjusts its savings formation to correct any disequilibrium in its long-run savings formation.

The estimation result of the dynamic short-run savings equation using ECM approach in the period of 1969 - 1988 are as follows:

$$\begin{aligned} \Delta \text{LSTR} = & 0.06 + 0.63 \Delta \text{LFIN} - 0.01 \Delta \text{RR} \cdot \text{D83}(-1) - 5.83 \Delta \text{SF} - 0.08 \text{ECM}(-1) \\ & (5.31) \quad (6.27) \quad (-5.49) \quad (-21.46) \quad (-2.35) \\ & + 0.11 \Delta \text{LSTR}(-1) + 0.13 \text{D74} + 0.28 \text{D81} \dots\dots\dots (2) \\ & (2.02) \quad (4.02) \quad (8.64) \end{aligned}$$

$$\begin{array}{lll} R^2 = 0.99 & \text{SER} = 0.03 & \text{LM(F)} = 1.11 \\ \text{ARCH(F)} = 0.57 & \text{WH(F)} = 0.33 & \text{JB} = 1.14 \end{array}$$

Notes:  $\Delta$  is a first-difference operator. ECM (-1) is an error correction term produced by the equation (1) with lagged value.  $\text{RR} \cdot \text{D83}$  is a dummy multiplicative interest rate variable and banking deregulation of 1983. D74 is a dummy variable of 1974 = 1 and D81 is a dummy variable of 1981 = 1, while the other year = 0. LM is a serial correlation test of *langrange multiplier* (degree 1). ARCH is *autoregressive conditional heteroschedasticity* test. WH is *white's heteroschedasticity* test. JB is *Bera-Jarque normal* test.

From the above estimation result, it can be seen that based on the validity test model, the short-run equations developed have been specified respectably. Actually, the stability test on the equation parameter should have been conducted, however, due to the limitation of data the

test was not conducted. The historical simulation result is shown in Chart 5.1.

In the estimation of the above short-run dynamic model, the transformation of variables into dummy multiplicative interest rate variables has been conducted to find out the impact of short-run interest rate behavior due to the fact that government had determined the interest rate ceilings in Indonesia before banking deregulation issued in 1983. Related to this matter, the ECM (-1) reflecting the equilibrium error term proves to be statistically significant. This supports the result of the previous co-integration test that the variables in equation (1) are cointegrated. The error correction coefficient produced can be interpreted as long-run coefficients of the relationship among those variables.

The national income in the long-run gives a positive impact to the domestic savings formation. In this respect, the short-run impact of national income level is also positive, but this matter is not reported due to the statistically insignificant impact. However, related to the purpose of this paper, the impact of financial sector deepening and interest rate should become a focus. In this respect, the financial deepening level has a positive coefficient in the long-run and in the short run, while the interest rate has a negative coefficient in the short-run. Implicitly, this displays that the financial structural changes give a positive contribution on domestic savings formation. The positive contribution itself is much related to the fast growth of financial institutions or banking institutions. Further more, this growth also indicates that the financial deepening process in Indonesia still continues. Meanwhile, in the short-run, the real interest rate formed as a result of deregulation (reformation) in financial sectors in Indonesia since 1983 is still considered less effective than it should be, in order to stimulate the acceleration of domestic savings. The negative contribution of interest rate to domestic savings, though relatively small, may be affected by an income effect because the increase of social welfare resulted from the increase of interest rate contributes more dominant negative impacts on savings formation than positive impact of substitution effect on saving formation. This empirical test also shows that either in the long-run or in the short-run, foreign sectors give a significant negative contribution on domestic savings formation, meaning that the relationship between domestic savings component and foreign savings components are substitutable. Further more, a short-run impact of some previous domestic

saving period which is significant on domestic savings formation reflects that savings formation in Indonesia undergoes some short-run process, but regarding the resulted coefficient is relatively small, the adaptation process then goes relatively slow. Meanwhile, the impact of first shocks resulted from the structural development of economy on domestic savings can be seen in the significant coefficients of dummy variables in 1974 and 1981.

### ***3.3.4 The Impact Analysis of Taxation of Financial Instruments on Domestic Savings***

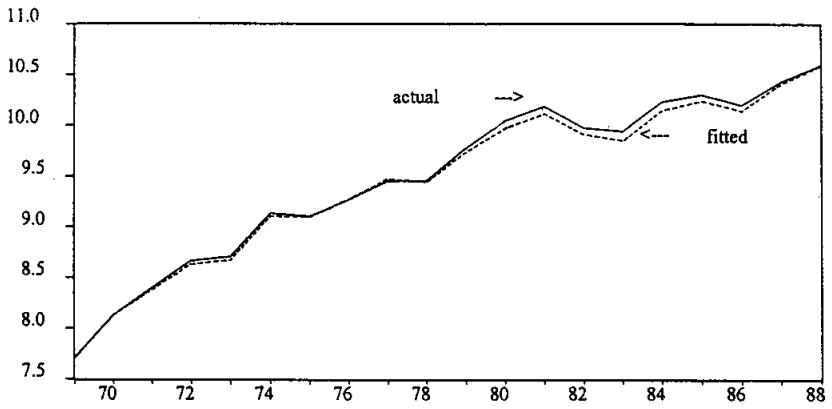
As mentioned in the previous explanation, the impact analysis is conducted by applying simulations with base scenario or non-base scenario which is based on the equation (2). Those simulations are executed, using some observation data in 1989 - 1995. This approach is considered to be relevant with two matters. Firstly, the taxation phenomena on financial instruments in Indonesia have recently been applied comprehensively and in a more directed way in the period after the deregulations in 27 October 1988, so permanent characters of that taxation are less possible to be observed in the beginning of the observed period. Secondly, the observation on the impact of taxation on interest income is conducted by subtracting the tax percentage (for example 15 per cent) to the real interest rate, then using that subtracted percentage in the savings function development. As a result, the impact of taxation itself has not been reflected yet.

Meanwhile, the main assumptions bottom-lined this analysis are: (i) no structural changes in Indonesian economy prevails during the period of 1989 - 1995 which can lead to the shifting of domestic savings behavior; (ii) the impact of interest rate on domestic savings formation has relatively not changed so that the impact of taxation on financial instruments wholly depends on the long-run and short-run interest rate behavior. The simulation result executed is displayed in Table 5.8.

The above simulation results reflects several points as follow : *Firstly*, there is a strong relationship between domestic savings formation and the taxation of financial instruments which is shown by the difference between domestic savings growth in the base scenario and in the non-base scenario, reflecting a deviation of domestic savings growth as a result of the taxation of financial instruments on its long-

Chart 5.1

HISTORICAL SIMULATION DOMESTIC SAVINGS (LSTR)



**Table 5.8**

**THE SIMULATION RESULT OF BASE AND  
NON-BASE SCENARIO IN 1989 - 1995  
THE ANNUAL GROWTH OF NOMINAL DOMESTIC SAVINGS (%)**

<b>Domestic Savings</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>
Base Scenario	25.29	24.49	21.25	15.38	23.67	36.85	13.04
Non-Base Scenario	22.29	29.34	21.44	16.83	23.11	35.35	12.29
Deviation	-0.00	4.83	0.19	1.45	-0.56	-1.50	-0.75

run growth trend. *Secondly*, the deviation value depends heavily on the financial sectors performance which in this respect is reflected by the growth of the economy liquidity. Related to this matter, the growth of economy liquidity prevalent in the period of 1989 - 1995 plays a major role in domestic interest rate behavior. If the growth of economy liquidity is so tight, such as happened in 1990 -1992, the domestic interest rate will undergo a considerable increase. In such situation, the taxation of financial instruments leads to some increase of domestic savings formation relative to its long-term trend. The increase of domestic savings formation prevalent in those three years was about 2 per cent per year above its long-run trend. Contrast with the above condition, when the growth of liquidity in 1993 - 1995 started having more space, it caused domestic interest rate gradually decrease in comparison with the previous years. In that development, the taxation on financial instruments leads to a slight decrease of domestic savings formation compared to its long-run trend. The decrease of domestic savings in 1993 -1995 is about 1 per cent per year in comparison with its long-run trend. It needs to add that in 1989, the taxation of financial instruments also affected the domestic savings formation, but it was very small (nearly 0 per cent) due to the fact the taxation was newly introduced and yet not so influential in the first year.

Intuitively, an understanding drawn is that the observation on the impact of financial instruments taxation on the domestic savings is not very successful in presenting a clear conclusion. This is due to the impact that is highly related to financial sectors performance, so the taxation of financial instruments but followed by the increasing domestic interest rate trend (1990 - 1992) will even support the increase of

domestic savings formation. Thus, the increasing trend of domestic interest rate provides an incentive to the public to add its savings, but if the domestic interest rate tends to decrease (1993 - 1995), the behavior will be in contrast.

#### **IV. Conclusion**

There are several points of conclusion based on the previous analysis, which are as follows : *First*, due to the more integrated domestic financial market into international money market, strong impact of globalization, and the better facilities in domestic financial market, the existing volume and amount of financial instruments transaction are expected to increase (develop) and financial instruments alternatives become more various. *Second*, related to the taxation on banking deposits at the end of 1988, it does not indicate any shifting in financial instruments holdings (banking deposits) into capital market. In this respect, the dynamic impact of banking deregulation of 1988 tends to offset negative impact of taxation on banking deposits. Meanwhile, the increase of stock market capitalization is more influenced by capital market deregulation and psychological effects and other fundamental factors. *Third*, the economic impact of taxation of financial instruments on domestic savings formation is relatively difficult to estimate due to the fact that the impact of taxation is highly related to the financial sectors performance. In this respect, the increasing of domestic interest rate tendency can give positive contribution on the domestic savings formation.

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## **Chapter 6**

### **TAXATION OF FINANCIAL ASSETS IN KOREA**

by

*Sung Joon Park*

#### **I. Tax System in Korea**

##### **1.1 Present Tax System**

The current Korean tax system is composed of national and local taxes (Figure 6.1). National taxes, levied by the central government, are divided into internal taxes, customs duties, and three taxes for special purposes, i.e. transportation tax, education tax, and special tax for rural development. Among these, internal taxes consist of six direct and six indirect taxes, a framework formulated in the latter half of the 1970s when value-added tax, special excise tax, and so on were introduced. Personal income tax and corporation tax account for the majority of direct internal tax revenues, and value-added tax for the greater part of indirect internal tax revenues. Local taxes, levied by local government units, consist of six provincial and nine city and county taxes.

Four of these taxes are related to financial income; namely, income tax, inhabitant tax, special tax for rural development, and securities transaction tax. Accordingly, only these four will be explained in detail.

##### **1.1.1 Income Tax**

An individual who is resident within Korea for one year or longer is liable to income tax on all income derived from sources both within and outside the country. A non-resident individual pays income tax only on income derived from sources within Korea.

Residents' income can be divided into global income and non-global income. Global income denotes income which is subject to global taxation. It consists of seven kinds of income, namely, interest income, dividend income, lease income from real estate,

business income, wage and salary income, temporary estate income and other income<sup>1</sup>. However, exceptionally, some types of global income are subject to separate taxation. They include interest and dividend income of less than 40 million Won per year and interest income from five year or longer term savings and bonds, wage income of workers on a daily basis, and other income of less than 3 million Won per year. Non-global income is divided into retirement income, capital gains, and timber income, all of which are subject to separate taxation.

Non-residents' income is also taxed according to two methods. The global taxation method is applied where a non-resident has a domestic place of business or derives income from the leasing of real estate. The separate taxation method is applied where a non-resident has no domestic business place or no real estate income.

The tax rates applicable to global income range from 10 to 40 percent, depending upon the size of the tax base as shown in Table 6.1. The tax base is calculated by deducting personal exemptions from the aggregate taxable global income. The income tax payable on global income is the aggregate of the amounts calculated by applying each tax rate in turn to the income in the relevant bracket.

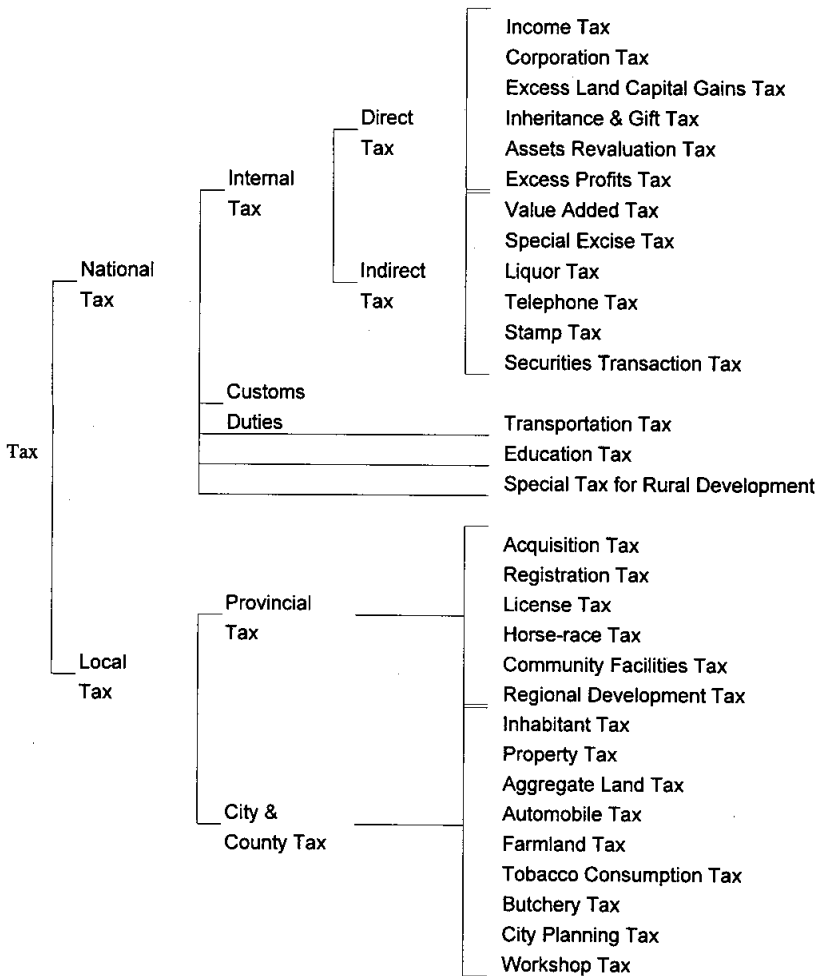
**Table 6.1**  
**TAX RATE ON GLOBAL INCOME**  
(Won)

<b>Tax base</b>	<b>Tax rate</b>
less than 10 million	10%
10 million to 40 million	20%
40 million to 80 million	30%
more than 80 million	40%

1 Temporary estate income denotes income from the transfer of antiques and special rights such as mining rights, patent rights, and so on. Other income means income other than that arising from interest, dividends, real estate, wages and salaries, temporary estate, retirement allowance, capital gains or timber. Retirement income is retirement allowance and capital gains denotes profits accruing from the transfer of real estate and rights to real estate, etc.. Timber income means income from lumbering or the transfer of forested land.

Figure 6.1

# TAX SYSTEM IN KOREA



Meanwhile, the tax which is payable on retirement income and timber income is calculated on the basis of the above tax rates of global income. However, the tax rates on capital gains are different as shown in Table 6.2.

**Table 6.2**

**TAX RATE ON CAPITAL GAINS**

<b>Tax base</b>	<b>Tax rate</b>
Land, buildings or other assets held for more than 2 years	
. below 30 million Won	30%
. 30 million ~ 60 million Won	40%
. Over 60 million Won	50%
Land, buildings or other assets held for less than 2 years	50%
Assets transferred without registration	75%
Shares in an unlisted company	20%

Besides this, a taxpayer who has interest income, dividend income, business income accruing from free-lance activity, wage and salary income, retirement income or other income is required to withhold income tax at the various rates as shown in Table 6.3. Among these rates, that on financial income is 15 per cent.

**Table 6.3**

**WITHHOLDING TAX RATE**

<b>Tax type</b>	<b>Withholding tax rate</b>
Interest <sup>1</sup> and dividend income	15%
Business income from free-lancing	1%
Wage and salary income, retirement income	Basic rates of global income
Other income	20%

- 1 The withholding tax rates on bonds and savings with a term of five years or more are 25 or 30 per cent, where separate taxation is opted for.

### 1.1.2 Inhabitant Tax

Inhabitant tax, one of the local taxes, is levied on both a pro rata and a per capita basis. A pro rata amount of an individual or corporate taxpayer's liability for the payment of income tax, corporation tax, or farmland tax is levied at the rate of 10 per cent of the existing amount payable. According to this, at present, financial income from general financial instruments is subject to an inhabitant tax of 1.5 per cent in addition to income tax. In addition, individuals with their domiciles and corporations with their offices in a city or county are liable for inhabitant tax on a per capita basis.

### 1.1.3 Special Tax for Rural Development

The special tax for rural development is a surtax levied at various rates on the amounts exempted from individual income tax, corporation tax, or customs duties, as well as on the amounts levied under taxes such as the special excise tax and securities transaction tax. For example, this tax is payable at a rate of 10 per cent on the tax reduction granted on interest income from savings accounts. It was imposed from July 1, 1994 for the purpose of supporting rural society and agricultural industry during a transitional period, in line with the opening schedule agreed in the UR negotiations, and it is scheduled to lapse as of July 1, 2004. The tax bases and rates are shown in Table 6.4.

**Table 6.4**

#### **TAX BASE AND TAX RATE OF SPECIAL TAX FOR RURAL DEVELOPMENT**

<b>Tax Base</b>	<b>Tax Rate</b>
Exemption of individual income tax, corporation tax, customs duties, acquisition tax, registration tax	20%
Reduction of eligible interest from savings accounts	10%
Securities transaction tax	0.15%
Amount by which the corporation tax base exceeds 500 mil. Won	2%
Special excise tax	10%
Acquisition tax	10%
Aggregate land tax	10 ~ 15%
Horse-race tax	20%

#### **1.1.4 Securities Transaction Tax**

The securities transaction tax is imposed on the transfer of stocks of a corporation established under the Commercial Code or any special act. However, transfers of stocks listed on an overseas stock exchange as well as over-the-counter transfers of stock by and between non-residents are not subject to this tax (provided that they have held less than 10 per cent of the total stock in the concerned corporation for the past preceding five years). The tax base is the total value of the securities at the time of their alienation. As of the end of May, 1996, the tax rate was 0.15 per cent.

#### **1.2 Tax Structure**

The Korean tax structure has long been characterized by its heavy dependence on indirect taxes. The introduction of value-added tax in 1977 resulted in a further increase in the relative share of indirect taxes. This was because, in the early stages of economic development, indirect taxes helped encourage private savings and restrain excessive consumption, facilitating the accumulation of the capital needed for economic growth. Indirect taxes also enabled the collection of tax revenues with less tax resistance and provided administrative convenience. Besides this, various types of tax exemption and deduction were given on direct taxes such as corporation tax and individual income tax as incentives for the accumulation of capital and the promotion of investment. For these reasons, until the middle of the 1980s, the share of direct taxes in total tax revenues failed to rise above the comparatively low level of about 40 per cent.

But, despite their merits, indirect taxes are largely regressive in terms of redistributing income. As greater concern was given to income redistribution with the increase of national income, Korean tax policy shifted from an indirect tax-focus to an emphasis on direct taxation. Since the latter half of the 1980s, direct tax revenues have increased sharply owing to the robust growth of revenues from individual and corporation income tax. As a result, the share of direct taxes in total tax revenues had risen to 55 per cent by 1995.

Meanwhile, the ratio of tax revenues to nominal GNP rose from 14.3 per cent in 1970 to 20.7 per cent in 1995. This was because of the need for increased public spending to support the

strengthening of national competitiveness and the improvement of social welfare, which has been a priority since the middle of 1980s. In the future, it is foreseen that such public spending will increase even more. In preparation for this, Korea is planning to raise the ratio of tax revenues to nominal GNP to between 22 and 23 per cent by 1997. Detailed of the tax structure and tax burden ratio can be seen in Table 6.5.

## **II. Taxation of Financial Assets in Korea**

### **2.1 Financial Assets**

During the past two decades, and especially since the early 1980s, holdings of financial assets in Korea have expanded and diversified greatly.

**Table 6.5**

**TAX STRUCTURE AND TAX BURDEN RATIO**  
(Per Cent)

	1970	1975	1980	1985	1990	1993	1995
Direct tax ratio	43.5	39.5	36.9	39.3	49.5	53.8	54.7
(Income Tax)	21.2	12.8	10.1	10.9	14.2	18.8	18.9
(Corporation Tax)	10.7	8.4	7.4	8.3	9.7	11.7	12.1
Indirect tax ratio	56.5	60.5	63.1	60.7	50.5	46.2	45.3
(VAT)	-	-	22.3	21.4	21.0	23.2	20.4
Total <sup>1</sup>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Tax burden <sup>1</sup> (ratio to nominal GNP)	14.3	15.3	17.9	17.3	18.6	19.1	20.7

1 These indicate all tax revenues including national and local taxes.

Various types of new financial instruments have been introduced in line with the establishment of new financial institutions. Sales of bonds under repurchase agreements (RPs) were first permitted for securities companies in February 1980, and they were later expanded to banks and the Post Office. Commercial paper (CP) and cash management accounts (CMAs) were introduced for investment and finance companies in June 1981 and April 1984, respectively. Deposit money banks began to handle sales of commercial bills discounted by themselves in September 1982. Furthermore, negotiable certificates of deposit (CDs) were introduced in June 1984 to promote banks' competitiveness with respect to non-banks. In banks' trust business, household money-in-trust and company money-in-trust were introduced in March 1985 and July 1987, respectively. Bond management funds (BMFs) were introduced by securities companies in September 1987. In July 1989, trade bills began to be handled by banks and by investment and finance companies. In addition, banks were allowed to handle various types of savings deposits.

In the early 1990s, savings deposits such as tax preference bond savings for small savers, long-term savings deposits for workers, and long-term securities deposits for workers were introduced by banks and securities companies. Banks were also allowed to offer long-term deposits for house-purchase from 1994. In 1995, personal pension trusts, floating-rate deposits and floating-rate notes were introduced.

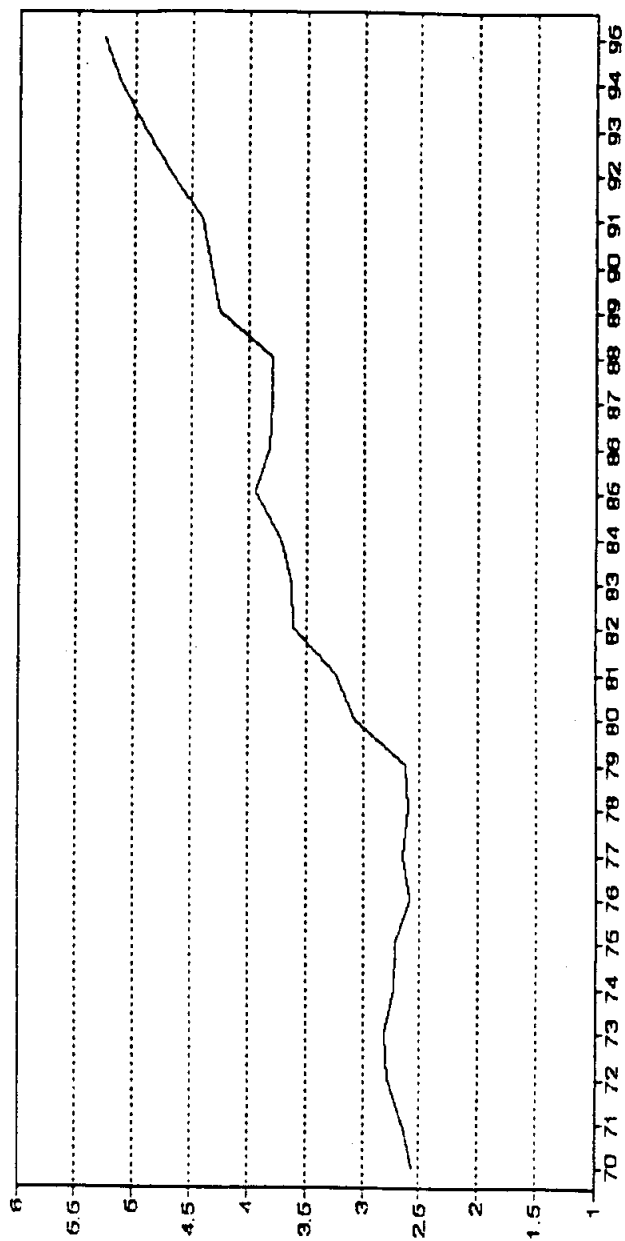
Thanks to such developments, the scale of financial assets in Korea has been greatly increased. As a result, the financial inter-relations ratio, which had stood at the low level of 3.1 in 1980, had risen considerably to 5.3 by 1995 as depicted in Figure 6.2.

Currently, the financial products which each class of institution can offer are limited by the relevant acts or regulations. The financial system is composed of banking institutions and non-bank financial institutions. The former consist of commercial banks and specialized banks, both of which handle the same types of financial assets, although only the specialized banks issue financial debentures. The latter are subdivided into development institutions, investment institutions, savings institutions, insurance institutions and other institutions.

The financial products handled by each class of institution are explained in detail in Appendix.

Figure 6.2

### TREND OF FINANCIAL INTERRELATIONS RATIO



## **2.2 Taxation of Financial Assets**

At present, all interest and dividend income of individuals from financial assets is, in principle, subject to the global taxation system. However, up until 1995, such income had been liable to separate taxation, under which the taxpayers' responsibility was discharged by the withholding of income tax at the time of receipt of such income.

Prior to 1995, the withholding tax rate on financial income varied according to economic conditions, the direction of tax policy, and the volume of tax revenue, etc. Looking at the trend of the tax rate, most financial income had not been taxed up to 1971. From 1972 to 1980, the total tax rate had been set at the modest level of 5 to 6 per cent, although defense tax and inhabitant tax were additionally imposed in 1975 and in 1977, respectively. The objective of this light taxation was to promote private savings as an impetus for economic growth. However, since 1982, the tax rate has been gradually raised to a comparatively high range of 16.5 to 21.5 per cent, owing to the introduction of education tax and the strengthening of taxation on income from assets. The changes from 1970 until the present are set out in Table 6.6.

Meanwhile, some financial instruments held by households were given tax incentives with respect to interest income for the purpose of encouraging private savings and helping those in low income groups build up capital. These instruments can be divided into two categories: those which are income tax-exempt and those on which income tax is withheld at a lower rate than that applied to general financial assets. The former include ten-year or longer term house-purchase deposits, personal pension trusts, seven-year or longer term savings-type insurance policies, etc.. The latter include long-term savings for wage earners, small household deposits, pension trusts for old age, and so forth. In addition, capital gains from transactions involving stocks and bonds, other than those of shares in unlisted companies, have been exempted from taxation in order to develop the capital markets and facilitate fund-raising by business firms. The majority of such incentives remain in place.

**Table 6.6**

**CHANGE OF TAX TYPE AND TAX RATE ON FINANCIAL INCOME**

Period	Tax rate (%)			
	Income tax	Other tax	Total tax rate	
1970 ~ 1971	0.00	-	0.0	
1972 ~ 1974	5.0	-	5.0	
1975 ~ 1976	5.0	defense tax	0.5	5.5
1977 ~ 1980	5.0	defense tax inhabitant tax	0.5 0.375	5.875
1981	10.0	defense tax inhabitant tax	1.0 0.75	11.75
1982 ~ 1990	10.0	education tax defense tax inhabitant tax	5.0 1.0 0.75	16.75
1991 ~ 1995	20.0	inhabitant tax	1.5	21.5
1996	15.0	inhabitant tax	1.5	16.5

However, in 1996, the system for the taxation of financial asset income underwent radical changes. One of the most important of these was that all financial income except capital gains became liable to global taxation. This step was taken to improve equity in taxation by the full taxation of unearned income. As a result, under the present taxation system, a taxpayer receiving aggregate income from financial assets of over 40 million Won per year is subject to tax at the global income tax rate, 10 to 40 per cent, after tax has been withheld at source. However, financial income of less than 40 million Won per year is not subject to global taxation, being taxed separately at the withholding tax rate. In addition, a taxpayer receiving interest income from bonds or deposits with an original maturity of five years or more can opt for either global or separate taxation. Where the latter method is adopted, tax is withheld

at a rate of 25 or 30 per cent<sup>2</sup> depending on the maturity periods, which is higher than that of general financial income. These measures were taken to prevent a rapid outflow of funds from financial markets.

The introduction of the global taxation system on high financial incomes is expected to generate an increase in total income tax revenue. Accordingly, the withholding income tax rate on general financial instruments has been reduced from 20.0 per cent to 15.0 per cent. This reduces the total withholding tax rate on general financial instruments from 21.5 per cent to 16.5 per cent, including the inhabitant tax rate of 1.5 per cent imposed at a pro-rated 10 per cent of income tax.

Besides this, the tax incentives which had been granted on various financial instruments were greatly reduced so as to improve equity among financial instruments. Accordingly, the withholding tax rate on these financial instruments was raised from zero or 5 per cent to 10 per cent. The total withholding tax rates, including the special tax for rural development, which is levied at a rate of 10 per cent of the amount of individual income tax exempted on savings accounts, was thus increased from 2.0 or 6.5 per cent to 10.5 per cent<sup>3</sup>. However, financial income from some long-term instruments such as ten-year or more term house-purchase deposits and personal pension trusts continues to be exempt from taxation.

The present system of taxation in relation to financial instruments in Korea is shown in detail in Table 6.7.

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2 The total withholding tax rate on five-year or more term savings and bonds is 33 per cent (income tax 30 per cent + inhabitant tax 3 per cent) and that on ten-year or more term bonds is 27.5 per cent (income tax 25 per cent + inhabitant tax 2.5 per cent). This measure was taken for the purpose of encouraging long-term savings and preventing a shift of funds from the financial markets to non-financial markets such as real estate markets.

3 The Korean government has announced its intention of reducing the withholding tax rate on general financial instruments from 15 per cent to 10 per cent from 1997. In line with this change, most tax incentives will be abolished.

**Table 6.7**

**CURRENT TAXATION OF FINANCIAL INSTRUMENTS IN KOREA**

Financial assets		Income tax rate		Remarks
<b>&lt;Deposits&gt;</b>				
0	Normal taxation <sup>1</sup>	15.0	0	The actual total tax rate is 16.5 per cent because an inhabitant tax of 1.5 per cent is also imposed.
0	Taxation at a lower rate <sup>2</sup>	10.0	0	The actual total tax rate is 10.5 per cent because a special tax for rural development of 0.5 per cent is also imposed.
0	Tax exemption <sup>3</sup>	zero	0	Both the inhabitant tax and special tax for rural development are waived.
<b>&lt;Bonds and Stocks&gt;</b>				
0	Interest and dividends <sup>4</sup>	15.0	0	The actual total tax rate is currently 16.5 per cent.
0	Capital gains <sup>5</sup>	zero	0	Capital gains from the transfer of stocks of a company not listed on the Korean Stock Exchange are taxed at a rate of 20 per cent.

1 All deposits except those listed below under notes 2 and 3.

2 Long-term savings for wage earners, Long-term securities savings for wage earners, Securities savings for wage earners, National corporations' stock trusts, Small household deposits not exceeding 18 million Won, Small bonds savings not exceeding 18 million Won, Insurance policies not exceeding 18 million Won, Pension trusts for old age not exceeding 20 million Won, Savings deposits for students not exceeding 2 million Won, and Savings for household expenditure not exceeding 12 million Won.

3 Ten-year or longer term house-purchase deposits, Personal pension trusts, Seven-year or longer term savings-type insurance policies, Deposits (less than 20 million Won) and shares (less than 10 million Won) in Credit Unions, Mutual Credit Facilities, and New Community Finance Associations and Trusts for public welfare.

4 Dividend income from stocks vested in Employees' Stock Holding Associations not exceeding 18 million Won is subject to withholding tax at 10.5 per cent.

5 Securities transaction tax is imposed on transaction of stocks at the rate of 0.15 per cent of the amount transacted.

### **III. Impact of Taxation of Financial Assets on Savings**

#### **3.1 Taxation of Financial Assets and National Savings**

It can be said that the most important impact of the taxation of financial income on an economy is its effect on financial savings and thus national savings, excluding its general role as a form of income tax, serving, for example, as a built-in stabilizer.

From the viewpoint of macroeconomic theory, it is said that savings have a wide-ranging and far-reaching influence on national economic fundamentals, such as economic growth, prices, the balance of payment and international competitiveness. First of all, increased savings promote investment, which facilitates high economic growth and high labor productivity. Besides decreasing consumption demand, they may stabilize prices and improve the balance of payments due to reduced imports. In addition, they contribute to the lowering of market interest rates, which may ease the financial cost burden on business firms and improve their international competitiveness. Consequently, the maintenance of a high national savings ratio is indispensable for any country which wants to accomplish sustained economic growth on the basis of price stability, strong competitiveness and an improved balance of payments position.

In most countries, especially developing countries which are short of capital for investment, the taxation of financial assets has been used as an important means of increasing national savings as well as for its original functions, such as raising tax revenue and income redistribution. For this purpose, various types of incentives are given, including tax rates lower than on other incomes, tax-exemption, and reduction of taxable income on interest and dividend income from financial assets. Although these incentives may contribute to the increase of national savings by raising after-tax interest rates, their effect is not necessarily clear, either in theory or in practice<sup>4</sup>.

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<sup>4</sup> Theoretically, the effect of income tax on savings can be explained by a substitution effect and an income effect. The levy of income tax may reduce the relative price of current consumption to future consumption and increase current consumption by a substitution effect. Meanwhile, the rising of the price of future consumption may reduce real incomes and decrease current consumption by an income effect. Accordingly, the direction of the combined effect on consumption and thus savings depends on the relative intensity of the two effects. Even in the literature, the impact is not clear. Whereas Denison (1958), Wright (1969), and Howrey-Hymans (1978) found that the increase of after-tax interest rates has little or no influence on savings, Boskin (1978) and Summers (1984) found that it may well have an influence.

In this regard, it is desirable to ascertain the influence of the taxation of financial assets on savings. Accordingly, in the following sections, we will build a model of the determinants of national savings, through which we will try to analyze taxation's effect on them.

### 3.2 The Model of Savings Function

Traditionally, income and interest rates have been considered to be the major determinants of savings. In addition, expected inflation, wealth, foreign and government savings, demographic factors such as the population dependency ratio and the quality of financial services have been also recognized as determinants.

However, we hypothesize that the savings function in Korea has the form as set out below. This is because numerous variables other than those expressed in this function turned out to be of little significance as a result of multiple regression<sup>5</sup>. The expected effect of each variable on savings is indicated over each of them.

$$S = f(Y_p^+ Y_m^+ I^- P^- FS^+ GS^+)$$

where	S	=	Savings
	$Y_p$	=	Permanent income
	$Y_m$	=	Temporary income
	I	=	Interest rate
	P	=	Inflation rate
	FS	=	Foreign savings
	GS	=	Government savings

In this function, gross national savings are used as a dependent variable because the data on sectoral savings, including those for the individual sector, are not available for the years prior to 1975. Besides gross savings, the financial assets of the private sector are also tested to analyze their impact on financial savings.

5. Those which proved to be weakly significant are four variables including current income, financial assets of the private sector as a proxy of wealth, the number of bank branches as a proxy of financial services, and the dependency ratio as a proxy of the demographic factor. Also, cultural factors such as thrift, which might be expected to affect national savings behavior, are untestable because of the unquantifiable nature of the data.

Income may be a very important determinant of savings, having a positive effect on them. In this case, both permanent income and temporary income are tested under the permanent income hypothesis. According to this hypothesis, consumption is a function of permanent income. Whereas an increase in permanent income may thus lead to an increase in consumption without a change in savings, an increase in temporary income may lead to an increase in savings without a change in consumption. The marginal propensity to save is therefore near zero for permanent income, but that for temporary income is close to unity.

Interest rates, at least potentially, play an important role in national savings. However, the direction of their effect on savings cannot be predetermined since the income effect and the substitution effect which stem from an interest rate change run in opposite directions. In this test, we used the after-tax interest rate, through which we tried to grasp the impact of the taxation of financial assets on savings indirectly. Our reason for doing so was that savings would be liable to be influenced by the rate of after-tax interest ultimately received by the tax-payer rather than by the rate of tax imposed on financial income.

The inflation rate is assumed to have a negative influence on savings. This is because a higher inflation rate may well cause a rise in inflationary expectations and thus an increase in current consumption. However, higher inflationary expectations may bring about an increase of savings in the form of real estate, instead of an increase in current consumption.

The impact of foreign savings on domestic savings is generally inferred to be negative. Since domestic savings can be expressed as the difference between domestic investment and foreign savings, foreign capital inflows reduce domestic savings with the exception that domestic investment increases to the extent of the foreign capital inflow. A variety of empirical studies also has confirmed the existence of a negative relationship between foreign savings and domestic savings<sup>6</sup>.

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6. Source: Domestic Resource Mobilization in the SEACEN Countries, Y.M.W.B. Weerasekera, The SEACEN Centre, 1993.

The sign of government savings' influence on gross national savings is generally held to be positive in that government savings are one of the components of national savings. Under Ricardian equivalence<sup>7</sup>, though, national savings may remain unchanged because any increase in government savings is offset by a decrease in private savings.

### **3.3 Estimation Results**

Using annual data from 1970 to 1994, the above savings function was estimated. Actual data used were as follows:

- S = gross national savings per capita
- $Y_p$  =  $(Y_t + Y_{t-1} + Y_{t-2})/3$ , as a proxy of permanent income, where  $Y_t$  is current income, that is gross national disposable income per capita and  $Y_p$  is calculated by the three-year average of  $Y_t$ .
- $Y_m$  =  $Y_t - Y_p$ , as a variable of temporary income
- I = Nominal interest rate X (1-tax rate), where interest rate is that of a one-year term time deposit and the tax rate is that on general financial incomes, apart from those which are tax-exempt or attract a lower rate.
- P = percentage change in the consumer price index.

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7. This proposition, argued by members of the rational expectations school such as R. Barro, asserts that, as a means of financing fiscal deficits, tax and the issuance of bonds are equivalent in their effects on economic variables including interest rate. This is because in the case of issuing bonds, a rational individual is aware that future taxes will have to be increased, and increases his savings by the same percentage as the estimated increase in his future taxes, and uses them to buy bonds. On the other hand, given a decrease in the fiscal deficit with an increase in tax revenue, he reduces his savings anticipating a decrease in his future taxes. As a consequence, government savings and private savings move in opposite directions: whereas an increase in the fiscal deficit, that is a decrease in government savings, causes an increase in private savings, a decrease in the fiscal deficit, that is an increase in government savings, causes a decrease in private savings.

FSR = (-) current account balance as a share of nominal GNP, where the sign of the current account balance is opposite because foreign savings and the current account balance are in an inverse relationship.

GSR = government savings ratio.

On this basis, the savings function can be stated as follows:

$$\log S = a + b(\log Y_P) + c(\log Y_m) + d(I) + e(P) + f(FSR) + g(GSR) + \varepsilon_t$$

In order to confirm the spurious regression problem, unit root tests were executed on every variable. The tests were done using the augmented Dickey-Fuller method. The results showed all these variables to be non-stationary data with unit root, as shown in Table 6.8.

**Table 6.8**  
**UNIT ROOT TEST<sup>1</sup> RESULTS**

variables	t-value of
log S	-1.6
log Y	1.3
log Y <sup>P</sup>	-2.6
I	-2.7
P	-2.7
FSR	-1.8
GSR	-3.2

$$1 \quad \Delta X_t = \alpha + \beta T + \lambda X_{t-1} + \sum_{i=1}^2 \delta_i \Delta X_{t-i} + \varepsilon_t$$

where T is the variable of trend.

- 2 All coefficients have unit root under the 10 per cent level of significance.

In order to ascertain whether traditional regression techniques can be applied to these variables, cointegration tests were executed. The results of these tests showed the residuals of linear combination to be stationary, as set out in Table 6.9.

**Table 6.9**  
**COINTEGRATION TEST<sup>1</sup> RESULTS**

	<b><math>\beta=0</math></b>		<b><math>\beta \neq 0</math></b>	
	<b>j=1</b>	<b>j=2</b>	<b>j=1</b>	<b>j=2</b>
t-value of $\gamma$	-5.1	-3.8	-4.9	-3.7

$$1 \quad \Delta \epsilon_t = \alpha + \beta T + \gamma \epsilon_{t-1} + \sum_{i=1}^j \delta_i \Delta \epsilon_{t-i} + e_t$$

where  $\epsilon_t$  is the residual of the savings function.

- 2 All of the above four cases have a cointegration relationship below the 5 per cent level of significance.

Thus, the savings function can be estimated by ordinary regression methods. The long-run savings function was estimated by the dynamic ordinary least squares method, the result of which are set out below. Figures in parentheses represent the t-values of each variable's coefficient. According to the estimated equation of savings, the t-values of coefficients except for government savings were found to be statistically significant and the adjusted R-squared fully satisfactory:

$$\begin{aligned} \log S = & -1.57 + 0.72(\log Y_p) + 0.47(\log Y_m) + 0.02(I) - 0.01(P) - 0.02(FSR) \\ & (-7.31) \quad (8.92) \quad (5.61) \quad (3.23) \quad (-2.26) \quad (-3.61) \\ & + 0.01(GSR) \\ & (0.27) \end{aligned}$$

$$\bar{R}^2 = 0.99$$

$$D-W = 1.82$$

From this equation, we can conclude that temporary income as well as permanent income has a positive effect on national savings, which coincides with our presumption. But the coefficient of permanent income is higher than that of temporary income, meaning that the former generates a higher marginal propensity to save than the latter.

Moreover, the sign of the after-tax interest rate is positive. This means that the substitution effect of the interest rate is greater than its income effect and also that the rate of income tax, which determines the final interest rate on financial assets, influences national savings in the opposite direction. Though the scale of the coefficient is small, this does not indicate that the effect of the interest rate on gross savings is weak. In this function, the elasticity of the after-tax interest rate with respect to savings is calculated at approximately 0.25, which is not at all low as compared with figures in other empirical studies<sup>8</sup>. This shows that national savings are sensitive to the interest rate in the case of Korea.

The sign of the coefficient of the inflation rate is negative, meaning that a higher inflation rate is liable to increase current consumption rather than current savings.

Foreign savings proved to have a negative influence on gross savings, from which it can be deduced that foreign savings decrease domestic savings, as was presumed. Besides, the effect of government savings was found to be insignificant since the t-value of the government savings ratio is extremely low.

Meanwhile, so as to narrow the range of savings to financial savings, the financial assets of the private sector from the flow of funds table were used as a dependent variable instead of gross national savings. This help us to analyze the impact of the after-tax interest rate on financial savings more precisely. Furthermore, the number of bank branches is added as a proxy of financial services in that services may play a more important role in financial savings than in national savings.

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8. For more details on other empirical studies, see Chapter 19 of Public Finance (in Korean) by Lee, Jun Ku, 1994.

Cointegration tests were applied and the test results, which are set out in Table 6.10 indicated the existence of a cointegration relationship among these variables.

**Table 6.10**  
**COINTEGRATION TEST<sup>1</sup> RESULTS**

	$\beta=0$		$\beta \neq 0$	
	j=1	j=2	j=1	j=2
t-value of $\gamma$	-3.5	-4.4	-3.4	-4.3

$$1 \quad \Delta \epsilon_t = \alpha + \beta T + \gamma \epsilon_{t-1} + \sum_{i=1}^j \delta_i \Delta \epsilon_{t-i} + e_t$$

- 2 All of the above four cases show a cointegration relationship below the 10 per cent level of significance.

According to the estimated savings function, the t-values of the coefficients of all variables proved to be significant and the adjusted R<sup>2</sup> was very high. Besides this, the signs of most coefficients except for the government savings ratio indicate the same direction as those in the national savings equation. The government savings turned out to have a negative impact on financial savings, which means that an increase in tax revenue reduces the disposable income of the private sector and thus, its investment in financial assets. In addition, the number of bank branches, the proxy for the quality of financial services, emerged as a contributor to the accumulation of financial assets. The estimated function is as follows:

$$\begin{aligned} \log FA = & 0.83(\log Y_p) + 0.20(\log Y_m) + 0.03(I) - 0.02(P) - 0.09(GSR) \\ & (4.79) \quad (1.22) \quad (2.50) \quad (-3.31) \quad (-2.37) \\ & + 3.36(\log NB) \\ & (3.68) \end{aligned}$$

where FA is the financial assets of the private sector, and NB is the number of bank branches.

$$\bar{R}^2 = 0.99 \quad D-W = 2.16$$

#### **IV. Policy Recommendations**

In the previous section, it was shown that the after-tax interest rate, income, and financial services all have a positive influence on savings, whereas the inflation rate and foreign savings have a negative influence on it.

Accordingly, in order to increase savings, a factor indispensable for sustained economic growth on the basis of price stability, the after-tax interest rate should be maintained at a high level. However, as the payment of high interest on deposits will no longer be possible in the future because of the greater inflow of cheap foreign capital, appropriate use should be made of the taxation of financial income. In this respect, it is desirable for the Korean government to plan to lower the rate of tax on financial income from 15 per cent to 10 per cent in 1997. In addition, greater efforts for price stability should be made so that the real after-tax interest rate can be maintained at a high level. Besides this, since the effect on savings of the disposable income, and especially permanent income in our analysis, is relatively great, the tax rate on individual incomes including financial income and wage income should be reduced as far as possible.

However, income tax has goals other than an increase in savings, among them being an enhancement of equity in taxation and the securing of financial resources for fiscal expenditure. Accordingly, adjustments in the rate of income tax should be carried out giving consideration to all these goals together. Furthermore, the income tax rate should be adjusted within the framework of overall taxation policy, being coordinated with other types of tax, such as excise duties and value-added tax. This will maximize the effectiveness of the adjustment of tax rates on financial income and prevent the possibility of mutual offset.

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## FINANCIAL ASSETS IN KOREA

(as at the end of March 1996)

Financial Assets	Maturity	Interest Rate (%)	Remarks
<b>a. Banking Institutions</b>			
<b>&lt;Demand deposits&gt;</b>			
- Checking deposits	-	0	
- Household checking deposits	-	1.0	Available only to individuals with high credit standing.
- Passbook deposits	-	1.0	
<b>&lt;Time &amp; savings deposits&gt;</b>			
- Time deposits	1 mth. ~ 5 years	2.0 ~ 10.5	
- Residence-subscription deposits	1 mth. ~ 3 years	2.0 ~ 8.5	Depositors have priority in applying for the purchase of new apartment.
- Savings deposits	-	3.0	Available only to individuals.
- Preferential savings deposits	-	3.0 ~ 10.0	Available only to individuals.
- Company savings deposits	8 days or more	2.0 ~ 7.0	eligibility is restricted to juridical persons and personal enterprises.
- Installment savings deposits	6 mths. ~ 5 yrs.	6.5 ~ 11.5	
- Mutual installment deposits	6 mths. ~ 5 yrs.	6.0 ~ 11.0	Loans may be extended to depositors.
- Worker's property formation savings deposits	1 year ~ 5 yrs.	10.0	Depositors receive legal premiums and tax allowances.
- Housing installment savings deposits	6 mths. ~ 5 yrs.	6.5 ~ 9.0	Loan facilities are available for housing finance.
- Savings for worker's housing	1 ~ 10 years	8.5 ~ 11.8	Loan facilities are available for housing finance.
- Long-term savings for wage earners	3 or 5 years	10.5 ~ 12.5	Taxed at a lower rate.
- Long-term deposits for house-purchase	10 years	10.5 ~ 12.0	Tax-exempt.
<b>&lt;Trust account assets&gt;</b>			
- Specific purpose installment trust	one and a half year	10.7 ~ 12.5	A fixed amount of money is entrusted at a fixed date every month.
- Household money in trust	one and a half year	12.0 ~ 12.8	Available only to individuals.
- Company money in trust	one and a half year	10.8 ~ 12.4	Available only to business firms.

Financial Assets	Maturity	Interest Rate (%)	Remarks
- Money in trust for old-age benefits	5 years	11.5 ~ 13.1	Taxed at a lower rate.
- Personal pension trust	10 years	12.6 ~ 14.3	Tax-exempt.
- Development trust	2 ~ years	10.0 ~ 10.8	Issued in the form of a beneficiary note.
<b>&lt;Others&gt;</b>			
- CDs	30 ~ 270 days	6.0 ~ 11.5	Minimum denomination is 10 million Won.
- RPs	30 days ~ 1 year	6.0 ~ 11.5	The minimum value of large denomination RPs is 10 million Won.
- Cover bills	30 days ~ 180 days	6.0 ~ 11.5	Issued on the basis of underlying commercial bills and trade bills; minimum denomination is 5 million Won
- Financial debentures	1 ~ 10 years	9.2 ~ 11.0	Important means of fund-raising for specialized banks
<b>b. Non-bank Financial Institutions</b>			
<b>&lt;Investment institutions&gt;</b>			
o Investment and Finance Companies (IFCs)			
- Bills issued by IFCs	1 ~ 90 days	1.0 ~ 10.2	
- Corporate bills	1 ~ 180 days	1.5 ~ 7.0	
- Cover bills	1 ~ 180 days		Same as those of banks.
- Cash management accounts (CMAs)	30 ~ 180 days	10.0 ~ 12.2	Profits from the operation of the funds are distributed to customers.
o Merchant Banking Corporations			Handle same range of business as IFCs and SITCs.
o Securities Investment Trust Companies (SITCs)			Dividends are determined by the actual results of fund operations.
- Short-term bond funds	31 ~ 181 days	10.5 ~ 12.5	All of funds are invested in bonds.
- Long-term bond funds	1 ~ 3 years	11.9 ~ 14.9	All of funds are invested in bonds.
- Stock investment funds	1 year	-2.4 ~ -0.1	Funds are invested in stocks as well as bonds.
- Property formation funds for workers	3 years	12.1 ~ 12.7	Similar to the worker's property formation savings of banks.
- Funds for old age benefit	5 years	1.9 ~ 13.1	Similar to the money in trust for old-age benefits of banks.
- Personal pension funds	10 years	1.0 ~ 14.7	Similar to banks' personal pension trusts.

Financial Assets	Maturity	Interest Rate (%)	Remarks
- Long-term funds for wage earners	3 years	-1.7 ~ 12.7	Similar to banks' long-term savings for wage earners.
o The Korea Securities Finance Corporation (KSFC)			
- Deposits for subscription initial public offerings	-	2.0 ~ 5.0	Depositors have the right to receive shares initially offered.
- RPs	7 days ~ 1 year	2.5 ~ 8.0	Same as those of securities companies
- Bills issued by KSFC	1 ~ 90 days	1.0 ~ 4.0	
<b>&lt;Savings institutions&gt;</b>			
o Trust Accounts of Banks			See under banks
o Mutual Savings and Finance Companies			
- Mutual installments	100 days ~ 5 yrs	9.7 ~ 13.5	Similar to those of banks except for interest rate.
- Mutual savings deposits	-	55.5	Similar to those of banks except for interest rate.
- Mutual time deposits	less than 3 year	4.4 ~ 13.2	Similar to those of banks except for interest rate.
- Cover bills	30 ~ 180 days	10.2 ~ 12.1	Similar to those of banks except for interest rate.
o Mutual Credit Facilities, Credit Unions, Post Office Savings			
- Passbook deposits	-	1.5	Similar to those of banks except for interest rate.
- Time deposits	-	3.0	Similar to those of banks except for interest rate.
- Savings deposits	1 ~ 3 years	9.6 ~ 12.1	Similar to those of banks except for interest rate.
- Installment savings depos	1 mth. ~ 3 yrs.	2.0 ~ 12.4	Similar to those of banks except for interest rate.
- Farming and fishing household property formation savings	3 ~ 5 yrs. 5 years	12.0 ~ 13.0	Similar to those of banks except for interest rate.
<b>&lt;Insurance institutions&gt;</b>			
- Life and health insurance	-	-	-
- Educational installment insurance	-	-	-
- Annuities	-	-	-
<b>&lt;Other institutions&gt;</b>			
o Securities companies			
- RPs	7 days ~ 1 year	2.5 ~ 8.0	

Financial Assets	Maturity	Interest Rate (%)	Remarks
- Large denomination RPs	30 days ~ 1 year	11.1	Minimum face value is 10 million Won
- Bond management funds (BMFs)	30 ~ 365 days	4.3 ~ 11.3	Invested in MSBs and TBs, etc.
- Securities saving account	3 or 5 yrs.	11.5	
Securities savings for workers	3 or 5 yrs.	11.5	Taxed at a lower rate
Long-term securities savings for workers	3 or 5 yrs.	11.5	Taxed at a lower rate
<b>c. Capital Market</b>			
<b>&lt;Bonds&gt;</b>			
o Government bonds			
- Treasury bills	less than 1 year	-	Issued for monetary control purposes
- Foreign exchange stabilization fund bonds	less than 5 year	9.1 ~ 11.5	Issued for monetary control purposes
- Grain securities	1 ~ 5 years	10.9 ~ 13.3	Issued to support domestic agriculture
- National housing bonds	5 years 20 years	5.0 3.0	Issued for housing
<ul style="list-style-type: none"> <li>* In addition to the above bonds, there are numerous government finance bonds such as Government bond management fund bonds, National investment bonds, Rural development promotion bonds, etc..</li> </ul>			
o Public bonds*			
<ul style="list-style-type: none"> <li>* Public bonds are categorized as bonds issued under specific acts and local government bonds.</li> </ul>			
- Monetary stabilization bonds	14 ~ 546 days	10.3 ~ 12.5	Issued for monetary control by BOK
- Land development bonds	2 or 5 years	8.0 ~ 10.0	
- Financial debentures	1 ~ 10 years	9.2 ~ 11.0	
- Local government bonds	-	-	Subway bonds, waterworks bonds, etc.
<ul style="list-style-type: none"> <li>** In addition to the above bonds, there are also numerous public bonds such as Electric bonds, Telegraph and telephone bonds, and so on.</li> </ul>			
o Corporate bonds			
<ul style="list-style-type: none"> <li>* Corporate bonds may be broken down into guaranteed bonds, non-guaranteed bonds, corporate mortgage bonds, convertible bonds, and bonds with warrants. The majority of corporate bonds are issued in the form of fixed-rate coupon bonds guaranteed by financial institutions.</li> </ul>			
<b>&lt;Stocks&gt;</b>			
<ul style="list-style-type: none"> <li>* Stocks in the trading market are classified as common stocks, preferred stocks, and convertible stocks.</li> </ul>			

## **Chapter 7**

### **TAXATION OF FINANCIAL ASSETS IN MALAYSIA**

**by**

***Peck Boon Soon***  
***Albarsikanil Abdul***

#### **I. The Tax Structure in Malaysia**

##### **1.1 Tax Structure**

The present tax structure of Malaysia is an outcome of a gradual evolution over the years which was influenced mainly by the changing objectives of tax policy and structural changes in the economy towards meeting the nation's socio-economic objectives. Prior to Independence, taxation was primarily used to collect sufficient revenue for the maintenance of law and order. After Independence in 1957, this emphasis shifted, particularly when the Government embarked on its economic development programmes, taxation became an important fiscal instrument to generate adequate revenue to finance the rapid increase of public expenditure in order to achieve socio-economic objectives, namely promoting economic growth, restructuring the economy, achieving stabilisation and equitable distribution of income goals, promoting national savings and containing inflation pressures.

The tax structure in Malaysia is generally classified into direct and indirect taxes. Direct taxes include mainly taxes imposed on income and profits (that is personal, company and petroleum income taxes), stamp duty, estate duty (abolished in 1991) and real property gains tax. Indirect taxes comprise taxes on foreign trade (import and export duties) and on the production and sale of goods and services (sales tax, excise duty and service tax).

In the 1960s, indirect taxes particularly taxes on foreign trade accounted for more than half of the total revenue of the Federal Government reflected the then economy was largely resource-based. Since the 1970s, there was a major change in the tax structure as reflected by a shift from heavy reliance on indirect taxation as the major source of revenue, to greater use of direct taxation with income

tax emerging as the most important single source of tax revenue. This development was attributed to the Government's both diversification policy to reduce the nation's overdependence on two primary commodities, namely rubber and tin, and the import substitution strategy which transformed the Malaysian economy from a resource-based to one increasingly based on the manufacturing and services sectors. In addition, an improvement in the tax administrative machinery, expansion of the tax base, upward adjustments in personal income tax rates structure as well as the introduction of new income tax sources, namely development tax, tin and timber profits tax, excess profits tax and petroleum income tax had contributed to the rapid increase in direct taxes during the period. With the introduction of the sales tax and service tax in the 1970s and the growing importance of excise duties following the rapid expansion of the domestic manufacturing industries and rising aggregate domestic demand, the indirect taxes remained a major revenue earner, although its share had gradually declined. In addition, the composition shifted from taxes on foreign trade to taxes collected on the production and sale of goods and services.

The ability of the tax system to generate sufficient revenue has been eroded over the years due to the structural weaknesses in the tax system, inter alia, complexity of the tax system, narrow domestic tax base, liberal tax incentives and high dependence on oil revenue. Coupled with the need to strengthen its overall financial position, the Government has embarked on a tax reform programme since 1988 to rationalise and simplify the tax structure to make it more efficient, transparent and competitive. The on-going tax reform programme aimed at reducing the overall tax burden while broadening the tax base to provide a conducive and competitive investment environment to stimulate both domestic and foreign investment, encourage private sector initiative and productivity, promote national savings, combat inflation as well as strengthen revenue collection, through the gradual reduction in reliance on direct and commodity-based taxes and shifting to more broad-based consumption taxes. Among the tax reform measures which have been undertaken were the gradual reductions in both corporate and personal income tax rates, a cut in the petroleum income tax rate as well as the abolition of the supplementary income taxes in order to make the income tax structure more competitive; the reduction or abolition of existing import tariffs to make the tariff structure more uniform and simpler to administer, remove excessive protection on domestic industries to promote efficiency and stimulate competition, reduce inflation-

ary pressures as well as liberalise international trade; revision of the export duty structure by abolishing export duties on certain commodities which have insignificant contribution towards revenue. Moreover, the income tax base was widened through the tightening of some reliefs and deductions provided to companies and streamlining the incentive structure while maintaining the major incentives in order to compensate the reduction in direct taxes and customs duties. In addition, the Government tightened the administration and widened the scope of sales and service taxes. The integration and restructuring of the existing sales and service taxes into a single broad-based consumption tax to be known as Sales and Service Tax (SST) was another significant and far reaching tax reform measured proposed in the Malaysian Budget of 1993. The integration would overcome several existing weaknesses of consumption taxes such as tax pyramiding, transfer pricing, bias towards imports and other abuses while stimulate greater savings and investments. However, the measure has yet to be implemented as further work on the feasibility of introducing the SST would be undertaken and appropriate changes would be introduced to make it more relevant to the needs of the nation.

## **1.2 Direct Taxes**

**Income tax** (personal, company and petroleum) governed by the Income Tax Act, 1967, is generally imposed on a territorial basis, that is income from all sources accruing in or derived from Malaysia is liable to tax. In addition, income derived from overseas and remitted to Malaysia is also subject to income tax. However, with effect from Assessment Year 1995, such foreign-sourced income remitted to Malaysia by resident companies in Malaysia will be exempted from income tax. Nevertheless, for certain specific business, that is banking, insurance and air/sea transport operations, the scope of taxation are assessable on a world income scope. Petroleum income tax is chargeable on income derived from petroleum operations in Malaysia.

**Stamp duty** governed by the Stamp Duty Ordinance, 1949, is chargeable on certain instruments and documents. The rates of tax vary according to the nature of the instrument or documents and transacted values.

**Real property gains tax** is levied on gains arising from the disposal of real property, ie. land and buildings situated in Malaysia or

any interest, option or other right in or over such land or shares in a real property company. The rate of real property gains tax is depend on the period of ownership of the property or real property company shares.

### **1.3 Indirect Taxes**

**Import duties** are levied on importers in respect of goods imported into Malaysia. The rates range from 2 per cent to more than 100 per cent. Import duties are generally levied on an ad valorem basis but may also be imposed on a specific basis.

**Export duties** on rubber, pepper and all minerals (except petroleum) were abolished in 1991. Hence, only palm oil and petroleum are subject to export duty.

**Excise duties** are imposed on selected goods manufactured in Malaysia and the rates vary depending on the nature of the items.

**Sales tax** is a single stage ad valorem tax imposed on all goods (unless specifically exempted) manufactured or imported into Malaysia. The general rate is 10 per cent. A rate of 5 per cent is imposed on certain non-essential foodstuffs and building materials. Cigarettes and liquor are taxed at 15 per cent. All exports are exempt from sales tax.

**Service tax** is a consumption tax levied on the value of prescribed goods or services sold or provided by prescribed establishments or prescribed professional establishments throughout Malaysia. The rate of tax is 5 per cent on the charge for services provided or price of goods sold.

## **II. Financial Assets and Taxation**

### **2.1 Type of Financial Assets**

There are many types of financial assets in Malaysia. Since the objective of this paper is to examine the impact of taxation on savings in the form of financial assets, this paper will therefore focus on these financial assets only. These financial assets include deposits placed with financial institutions, compulsory and contractual savings with provident, pension and life insurance funds as well as savings in unit

trusts, shares and private debt securities (PDS). In addition, the paper will only examine the impact of taxation on savings in financial assets by non-financial private sector given that this sector contributed to the bulk of the savings.

Total savings in financial assets by non-financial private sector recorded a substantial increase from RM33.9 billion in 1971-1980 to RM173.9 billion in 1981-1990 and to RM262.3 billion in the following five years period (See Table 7.1). A large proportion of the private wealth in the form of financial assets was accumulated over the last ten years between 1986-1995 reflecting mainly the strong private sector led economic growth for the past eight consecutive years. The macroeconomic policy implemented by the Government to create a predictable and stable financial environment for the private sector and the considerably high real rate of return on domestic savings have helped to increase these savings. In addition, the well managed financial system under the supervision of the Central Bank and Securities Commission which provides confidence to save in financial assets has contributed to the increase as well. On its part, the Government also played a positive role in helping to raise savings level in financial assets by imposing low level and simple tax on income earned from financial assets particularly interest incomes. Measures have also been introduced by the government to promote savings in financial assets such as exemption of some interest or dividend income from taxes and allowed contribution to compulsory savings and life insurance to be deducted from taxable incomes and to promote capital market as another avenue for savings. The high level of financial savings (about 30 per cent of GNP for the past ten years) mobilised by the financial system was most desirable as it provides an important resource for the development of the economy whereby the funds could be allocated efficiently into productive use and at the same time allowed the Government to have some influence on the allocation. Of the total savings in financial assets, deposits mobilised by financial system constituted the bulk of it, followed by compulsory and contractual savings, savings in shares, PDS and unit trusts. Over the last 25 years, the banking system continued to mobilise the bulk of the savings in financial assets reflecting the importance of the banking system in Malaysia's financial system. Except for some setbacks experienced by the banking system in the mid-1980s, the healthy banking system under the supervision of the Central Bank has helped the country to progress. Nevertheless, lately the role played by the capital market in mobilising financial savings has

Table 7.1

## NON-FINANCIAL PRIVATE SAVINGS IN FINANCIAL ASSETS

	1971-1980		1981-1985		1986-1990		1991-1995	
	RM million	% Share	RM million	% Share	RM million	% Share	RM million	% Share
Deposits with financial system	23,451	69.2	31,332	54.1	54,567	47.0	119,513	45.6
Savings							17,079	6.5
Fixed							79,611	30.4
Provident, pension & life insurance funds	9,336	27.6	17,854	30.8	31,566	27.2	66,208	25.2
of which								
EPF	6,980	20.6	14,838	25.6	22,212	19.1	44,905	17.1
Life insurance funds	1,335	3.9	1,989	3.4	3,451	3.0	9,062	3.5
Unit Trusts	96	0.3	2,755	4.8	9,891	8.5	16,260	6.2
Shares	910	2.7	5,410	9.3	13,662	11.8	35,254	13.4
Public	178	0.5	929	1.6	5,579	4.8	15,810	6.0
Right	550	1.6	3,235	5.6	7,169	6.2	15,514	5.9
Others <sup>1/</sup>	182	0.5	1,246	2.2	914	0.8	3,930	1.5
Private Debt Securities	77	0.2	579	1.0	6,832	5.9	33,293	12.7
Conventional bonds	0	0.0	0	0.0	2,413	2.1	16,257	6.2
Convertible bonds	57	0.2	579	1.0	1,041	0.9	4,014	1.5
Mortgage/Cagamas bonds	20	0.1	0	0.0	3,000	2.6	11,547	4.4
Islamic notes	0	0.0	0	0.0	378	0.3	1,475	0.6
Less: Redemption	0	0.0	0	0.0	523	0.5	8,264	3.2
Net bonds issued	77	0.2	579	1.0	6,309	5.4	25,029	9.5
Total Savings in Financial Assets <sup>2/</sup>	33,870	100.0	57,930	100.0	115,995	100.0	262,264	100.0
GNS	76,308		90,447		135,349		257,727	

1/ Include special issues, private placement, preference shares and call warrant.

2/ Error of double counting may exist as some of the shares and debt securities could have been subscribed by EPF, insurance and unit trust companies but the error is expected to be minimum.

became increasingly important and would certainly complement the role of the banking system in the near future in assisting the country to progress to a higher level.

### ***2.1.1 Deposits***

Deposits placed by non-financial private sector with financial institutions comprised of demand, fixed and savings deposits, negotiable instruments of deposits (NIDs) and repurchase agreements (Repos). These deposits rose substantially from RM23.5 billion in 1971-1980 to RM85.9 billion in 1981-1990. In the next five years between 1991-1995, the amount of deposits mobilised was even higher amounting to RM119.5 billion. The substantial increase in deposits reflected mainly higher household income and corporate earnings. The growing degree of monetisation following the spread of banking facilities in the country coupled with the increasing awareness and confidence of the savers with the financial system have also contributed to the increase. Compared with other financial assets, these deposits contributed to the largest share of savings in financial assets by the non-financial private sector in the early period to account for almost 70 per cent of total savings during the period 1971-1980. However, its share of total savings diminished over the years as more type of financial assets were available. As a result, these deposits constituted about 45 per cent of total savings in 1991-1995 compared with 47 per cent in 1986-1990 and 54 per cent in 1981-1985. Nevertheless, the amount of deposits placed with financial institutions remained significant. Of the total deposits mobilised, the bulk of the deposits was in the form of fixed deposits which accounted for about 67 per cent during the period 1991-1995 mainly on account of higher interest rates offered. The second important type of deposits was savings deposits which accounted for about 14 per cent of total deposits. In respect of institutions, a major portion of the deposits was placed with the banking system.

### ***2.1.2 Compulsory and Contractual Savings***

The second largest savings in the form of financial assets was compulsory and contractual savings. These savings comprised contribution to provident and pension funds and the purchased of life insurance policies. The amount saved in this form of financial assets rose from RM9.3 billion in 1971-1980 to RM49.4 billion in 1981-1990. Within next five years between 1991-1995, the amount saved was much higher,

amounting to RM66.2 billion. In terms of the share of total savings, savings in the form of provident, pension and life insurance funds remained relatively stable over the last 25 years period, averaging 28 per cent of the total savings. Within this form of savings, contribution to the Employees Provident Fund (EPF) constituted the bulk of it, accounting for about 68 per cent of total compulsory and contractual savings during the period 1991-1995 (averaging 76 per cent in the past two decade). The increase in contribution to EPF was associated with several important factors, including the growth of new memberships, rising income of the contributors and higher contribution rates. The mobilisation of resources through the provident and pension funds has enabled Malaysia to effectively deploy these funds for financing the development programmes of the Government particularly in the early period and the private investment more recently. Hence, a substantial portion of EPF's funds continued to be invested in Malaysian Government Securities (MGS). Savings in life insurance funds was the second largest in this form of savings. An amount of RM1.3 billion was mobilised in 1971-1980. The amount increased to RM5.4 billion in 1981-1990 and further to RM9.1 billion in 1991-1995. Nevertheless, its share of total savings in provident, pension and life insurance funds remained small in the region of 14 per cent.

### ***2.1.3 Savings in Shares and PDS***

A significant portion of savings was also channelled directly through the capital market to private corporations. This was through savings in the form of shares and PDS. It is worth mentioning that part of these savings were financed by bank borrowings but we are unable to segregate this portion out since the data is not available. Savings in shares in the primary market was less significant in the early period with total savings amounted to only RM0.9 billion or 2.7 per cent of total savings in 1971-1980. However, following the major change of the Government's policy in the mid-1980s to allow private sector to be the main engine of growth and the deliberate and concerted efforts on the part of the Government and the Kuala Lumpur Stock Exchange (KLSE) to develop the Exchange into a more efficient and stronger institution, savings in shares in the primary market started to pick up in 1980s. This was further enhanced by the listing of privatised companies by the Government which usually required large amount of financing. Reflecting these developments, savings mobilised through shares in the primary market increased substantially from RM5.4 billion in 1981-1985 to

RM35.3 billion in 1991-1995. Consequently, its share of total savings rose to 13.4 per cent in 1991-1995, from 9.3 per cent in 1981-1985. In the early period, savings in shares in the primary market were concentrated more on right issues, however, in recent years new issue of public shares have become important reflecting mainly the increase of new companies in the economy and the setting up of the Second Board listing to allow smaller size companies to tap savings from the capital market. In the case of PDS, the net amount saved in the primary market of PDS was also negligible in the early period to account for less than 1 per cent of total savings. The deliberate Government policy to develop PDS as an alternative to bank borrowing to finance additional private investments saw the PDS market became increasingly important as an avenue for a broader range of financial instruments to absorb the rising savings level and to ensure that such savings will be allocated efficiently for productive investments. Further, the development of the PDS market was also intended to complement the more mature and sophisticated market in equities and Government securities. As a consequence, the net amount saved in PDS in the primary market increased tremendously from RM0.6 billion in 1981-1985 to RM25 billion in 1991-1995. Similarly, its share of total savings rose from 1 per cent to 9.5 per cent during the same period. Conventional bonds have been the most important instruments used to tap the savings followed by Cagamas bonds. The bulk of PDS was held by financial institutions such as EPF and private corporations.

#### ***2.1.4 Units Trusts***

Other forms of savings in financial assets was in unit trusts funds. The growth of unit trusts in Malaysia was significantly influenced by the wide fluctuations in stock market prices on the KLSE. In the early period, savings in unit trusts could not generate sufficient interest, accounting for less than 1 per cent of total savings in 1971-1980. However, with the establishment of the National Unit Trust Scheme or Amanah Saham Nasional (ASN) in 1981, savings in this form started to pick up with amount saved amounting to RM9.9 billion in 1986-1990 compared with RM2.8 billion in 1981-1985. In recent years, with more unit trust funds being set up by the private sector particularly banks, the amount of savings mobilised by unit trust funds rose to RM16.3 billion in 1991-1995.

## **2.2 Tax Treatment On Financial Assets**

The tax on incomes earned from financial assets is not very complicated in Malaysia. In the early period, interest incomes earned from all financial assets mentioned above, except provident, pension and insurance funds, are integrated in global incomes and tax according to the marginal personal and corporate tax rates. In order to encourage households savings, the Government granted tax exemption for savings deposits placed with Bank Simpanan Nasional (BSN) of up to RM20,000 and with commercial banks, finance companies and the approved institutions including registered cooperatives, Bank Pertanian, Malaysia Building Society Berhad (MBSB) and Borneo Housing Mortgage Finance Berhad (BHMF) of up to RM10,000 in 1979. During the period 1981-1982, the tax exemption given to savings deposits was revised twice and this exemption was extended to cover fixed deposits exceeding 12 months maturities (See Table 7.2).

A major change in the tax collection system on interest incomes earned from deposits placed by individuals came into effect in 1986 to overcome the problems of tax evasion. This was by way of imposing a 5 per cent withholding tax on interest incomes earned by individuals and to be deducted at source to replace the old collection system of integrating in global income. The tax collection system on interest earned from deposits placed by corporations, on the other hand, remained unchanged. The low 5 per cent tax introduced by the Government was also aimed at encouraging households to save more. In 1989, in order to standardise the tax treatment on interest incomes derived from fixed deposits of different maturities, the 5 per cent tax exempt given to fixed deposits exceeding 12 months maturity was withdrawn while savings deposits of up to RM5,000 continued to enjoy the tax exempt benefit. Not until 1996 in a move to encourage savings, the Government again waived the 5 per cent withholding tax on fixed deposits exceeding 12 months maturity. The exemption was further extended to cover fixed deposits of 12 months and below but the amount must not exceeding RM100,000 while for saving deposits, the amount exempted is raised from RM50,000 in 1992 to RM100,000. Though interest income earned by individuals and corporations from fixed and savings deposits are subject to a 5 per cent withholding tax (since 1986) and corporate tax respectively, savings in these two forms of deposits continued to rise. The higher income and corporate earnings as well as the convenience for putting money with the financial

system and to enjoy the facilities offered by the financial institutions in return (particularly for corporations) have been the major factors contributing to the increase. Apart from that, the considerably high real interest rate has been another major factor. This implied that the savers are not so concerned about the tax (particularly for individuals where the tax is only 5 per cent of interest income) and the impact from the tax have therefore been outweighed by these factors. In some cases, the banking institutions even help the savers to absorb the 5 per cent tax in order to attract more savings.

While interest incomes from deposits are subject to tax, dividend income from savings in the form of compulsory and contractual savings are not subject to tax. In addition, individual tax payers are allowed to deduct such contribution and premium paid for life insurance policies from their taxable incomes subject to a maximum of RM5,000. Nevertheless, the increase in this form of savings was influenced mainly by other factors such as contribution rate, wages and the membership as mentioned earlier.

For savings in shares, capital gains from savings in shares are not subject to tax but the dividend incomes are subject to corporate tax rate. However, for individuals, these dividend incomes can be integrated into personal incomes and rebates would be given if the personal tax rates are below corporate tax rate. Despite the tax imposed on dividend incomes, savings in shares in the primary market have recorded a substantial increase particularly in recent years. Apart from the efforts of the Government and the KLSE in making the capital market a more conducive place to put money, few other major factors also contributed to the increase. Firstly, the tax exempt on capital gains has, to certain extent, help to offset the impact of tax on dividend incomes. Second, in the case of Malaysia, most of the new public share issues recorded hefty gains in capital as the prices were generally below market value. Finally, most of shares issued in the primary market were of high qualities. Like deposits, interest incomes earned from PDS were integrated in global incomes and tax according to personal and corporate rates in the early period. However, in a move to further develop the PDS market and to encourage savings in bonds, with effect from the year of assessment 1992 all interest earned by individuals from corporate bonds issued by public listed companies other than those that can be converted into equity shares are exempted from tax. In 1993, the exemption was extended to those bonds not

Table 7.2

## TAX ON INTEREST INCOME FROM DEPOSITS (RESIDENT)

Institutions	W.e.f Y.A.	Proposed Changes in the Budget
1. BSN	1979 1981 1982 1982	Tax exemption on interest earned on savings deposits of up to RM20,000. Increased savings deposits exempted to RM30,000. Tax exempt on all interest earned from savings deposits. Tax exempt for fixed deposits of 12 months or more.
2. Commercial banks & finance companies	1979 1981 1982  1986 1988 1989 1992 1996	Tax exemption on interest earned on savings deposits of up to RM20,000. Extend tax exemption on interest earned from fixed deposits amounting to RM10,000 provided deposits have a maturity period exceeding 12 months. o Reduced tax exempt on savings deposits of commercial banks and finance companies from RM10,000 to RM1,000. o Tax exemption on all interest earned from fixed deposits (including NIDs) by private individuals with maturity period exceeding 12 months. 5% withholding tax be levied on interest payments which are not exempted from tax. Increased tax exempt on savings deposits from RM1,000 to RM5,000 Withdraw exemption of 5% on interest accruing on fixed deposits exceeding 12 months. Increased tax exempt on savings deposits to RM50,000. Tax exemption on savings deposits of up to RM100,000, fixed deposits of less than 12 months but up to RM100,000 and fixed deposits of 12 months and more.
3. Registered cooperatives, Bank Pertanian, Tabung Haji, Malaysia Building Society & Borneo Housing Mortgage Finance	1979 1982 1986	Tax exemption on interest earned on savings deposits of up to RM10,000. Increased tax exempt on savings deposits to RM50,000. Tax exemption on savings deposits of up to RM100,000, fixed deposits of less than 12 months but up to RM100,000 and fixed deposits of 12 months and more.

listed on the Kuala Lumpur Stock Exchange (KLSE) but are rated by the Rating Agency Malaysia Berhad (RAM). The exemption given would certainly encourage individuals to increase their savings in bonds but the impact is expected to be minimum. This was because a large proportion of the PDS in the primary market was held by financial institutions and private corporations. Furthermore, the trading of PDS in the secondary market was not active as majority of investors tended to hold their investment to maturity due to relatively higher bond yields. Again for these investors, the return from PDS was more than enough to offset the tax impact.

For savings in unit trusts, tax exempt was given to dividends earned from approved unit trusts of up to a maximum of RM4,000 in 1980. The amount was raised to RM5,000 in 1982 but the exemption was subsequently withdrawn in 1992. As for savings in ASN and Amanah Saham Bumiputra (ASB), there is no tax on dividend incomes earned from these unit trusts.

In essence, in Malaysia's case, the impact from tax that would discourage savings in financial assets is minimum or no at all. Other factors, on the other hand, have more influences on these savings.

### **2.3 Empirical Analysis**

To examine the impact of taxation on savings in the form of financial assets, deposits of the banking system have been used as a proxy to savings particularly the fixed and saving deposits. The following saving equations are estimated:

$$\begin{aligned} \text{LNFDIND} = & A_0 + A_1\text{LNFDIND}(-1) + A_2\text{INDTAX} + A_3\text{M12BT} + A_4\text{AGDPN}(-1) \\ & + A_5\text{ASV} + A_6\text{DUM} + A_7\text{DUM1} + U_t \end{aligned} \quad (1)$$

$$\begin{aligned} \text{LNCORP} = & B_0 + B_1\text{CORTAX} + B_2\text{GNPGH} + B_3\text{M3T} + B_4\text{CPI} \\ & + B_5\text{APRIt}(-1) + B_5\text{BFO} + U_t \end{aligned} \quad (2)$$

$$\begin{aligned} \text{LNSVIND} = & C_0 + C_1\text{LNSVIND}(-1) + C_2\text{INDTAX} + C_3\text{AGFDIND} \\ & + C_4\text{AGDPN} + C_5\text{SVR} + C_6\text{DUM} + C_7\text{DUM1} + U_t \end{aligned} \quad (3)$$

where:

FDIND = Individual fixed deposit  
CORP = Corporate fixed deposit  
SVIND = Individual saving deposit

### **Independent Variables**

INDTAX	= individual tax rate on interest income.
M3BT	= three months fixed deposit rate before tax
M12BT	= twelve months fixed deposit rate before tax
GNPGH	= Annual growth rate of Gross National Product at current price
BFO	= total number of commercial banks and finance companies branch offices
ASV	= Annual growth rate of individual savings deposit
AGDPN	= Annual growth rate of Gross Domestic Product at current price
CPI	= Annual growth rate of Consumer Price Index
APRI	= Annual growth rate of private investment
DUM	= Dummy represents the change in interest income tax measures
DUM1	= Dummy 1 represents the three period of oil shocks, 1973-1975, 1979-1980 and 1990-1991.
Sub <sub>t</sub>	= time

The three saving equations above are run separately for the period 1970-1975 using Econometric views package (Eviews). Note that from equation 1-3, the log specification is chosen because generally it performs better than other specification and conveniently provides the estimation or elasticities directly. Lagged variables are also introduced to capture the partial adjustment process and to reduce the problem of serial correlation. In the equation with lag, diagnostic tests are run to detect the existence of serial correlation and heteroscedasticity.

### **Estimation Results**

It is, however, imperative to note at the outset that the result and conclusions of this analysis is still tentative, since the authors believe that the quality can be improved if further efforts are directed towards improving the model. Furthermore, data for some of the variables are not readily available. The estimation results are summarised in Table 7.3. The figures in the parenthesis below each estimated coefficients are the appropriate t-values. The  $R^2$  indicates the "goodness of fit" across the equations. Overall, the result has been fairly reasonable despite the insignificance of some variables at the usual acceptance level. Except for the equation 2, the result seems to suggest that there is no significant impact of taxation on interest income of the individual deposits, despite the imposition of 5 per cent withholding tax on interest income of individual savings separately. Furthermore, its coefficient is negative, indicating that the 5 per cent withholding tax would have negative impact on savings. This might be the case when interest income on

deposits is taxed at source. However, the 5 per cent tax on interest income is relatively small and the impact might have been outweighed by other factors such as higher income and the facilities offered by the financial institutions. Nevertheless, the impact of taxation on corporate deposit is positively significant at 5 per cent level. The result reveals that the measures to reduce further income taxes to raise saving is effective.

The regression result also shows that not all of the coefficients of the variables significantly explained the variation in the savings deposit. The result in equation (1) indicates that individual savings are significantly explained only by the variables FDIND(-1), M12BT and DUM1. Despite with only few significant variables, high  $R^2$  implies that individual savings behaviour has been satisfactorily explained by the equation. Furthermore, the residual test (see appendix) has also been conducted and the result is also conclusive. Similarly, the corporate savings equation reflects strong relationship with CORTAX, M3BT and BFO. The high  $R^2$  and residual test show that the result is satisfactory. In equation (3), the variables LNSVIND and AGFDIND have significantly impacted individual savings. The test of residual also indicates that the regression result is satisfactory.

### **III. Conclusion**

The tax measures introduced by the Government in the financial assets has generally been successful. Ever since a major change in tax collection system in 1986, higher individual savings has been achieved despite the 5 per cent withholding tax imposed on them. Notwithstanding, the Government put further efforts to provide a competitive investment environment by waiving the 5 per cent withholding tax on fixed deposits exceeding 12 months maturity. Subsequently, this is extended further to cover fixed deposits of 12 months and below but the amount must not exceeding RM100,000. Similarly, the amount exempted for savings deposit is raised from RM50,000 in 1992 to RM100,000. As a whole, the impact of tax measures on savings in financial assets is encouraging consistent with the empirical results that imposing tax on interest income has no significant impact to discourage savings.

**Table 7.3**

**ESTIMATION RESULTS**

$$\begin{aligned} \text{LNFDIND} = & 1.224 + 0.873 \text{ LNFDIND} (-1) - 0.010 \text{ IND TAX} + 0.071 \text{ M12BT} + \\ & (2.38) \quad (19.93) \quad \quad \quad (-1.38) \quad \quad \quad (3.25) \\ & 0.003 \text{ AGDP}(-1) - 0.003 \text{ ASY} - 0.138 \text{ DUM} - 0.110 \text{ DUM1} \\ & (0.89) \quad \quad \quad (-1.04) \quad \quad \quad (-0.42) \quad \quad \quad (-1.884) \end{aligned}$$

$$R^2 = 0.99$$

$$\begin{aligned} \text{LNCORP} = & -14.078 + 0.406 \text{ CORTAX} + 0.008 \text{ GNP GH} + 0.297 \text{ M3BT} - \\ & (-2.18) \quad (2.91) \quad \quad \quad (0.32) \quad \quad \quad (3.78) \\ & 0.084 \text{ CPI} + 0.001 \text{ APR1}(-1) + 0.005 \text{ BFO} + 0.44 \text{ DUM1} \\ & (-1.55) \quad \quad \quad (-0.05) \quad \quad \quad (5.91) \quad \quad \quad (1.08) \end{aligned}$$

$$R^2 = 0.90$$

$$\begin{aligned} \text{LNSVIND} = & 0.914 + 0.935 \text{ LNSVIND} (-1) - 0.005 \text{ IND TAX} + 0.010 \text{ SVR} - \\ & (2.90) \quad (34.07) \quad \quad \quad (-0.84) \quad \quad \quad (0.52) \\ & 0.004 \text{ AGFDIND} + 0.004 \text{ AGDPN} - 0.132 \text{ DUM} - 0.062 \text{ DUM1} \\ & (-3.57) \quad \quad \quad (1.41) \quad \quad \quad (-0.47) \quad \quad \quad (-1.43) \end{aligned}$$

$$R^2 = 0.99$$

## REGRESSIONS RESULT

LS // Dependent Variable is LNFDIND Sample: 1972 1995 Included observations: 24 after adjusting endpoints				
Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	1.223640	0.513676	2.382122	0.0300
LNFDIND (-1)	0.872841	0.043794	19.93082	0.0000
INDTAX	-0.009452	0.006855	-1.378922	0.1869
M12BT	0.070791	0.021793	3.248271	0.0050
AGDPN (-1)	0.002653	0.002964	0.895205	0.3839
ASV	-0.002509	0.002421	-1.036193	0.3155
DUM	-0.137971	0.328461	-0.420053	0.6800
DUM1	-0.110296	0.058543	-1.884018	0.0779
R-squared	0.993117	Mean dependent var	9.505564	
Adjusted R-squared	0.990106	S.D. dependent var	1.025477	
S.E. of regression	0.102002	Akaike info criter	-4.30432	
Sum squared resid	0.166471	Schwartz criterion	-3.91163	
Log likelihood	25.59730	F-statistic	329.8092	
Durbin-Watson stat	2.376315	Prob (F-statistic)	0.000000	

Breusch-Godfrey Serial Correlation LM Test:				
F-statistic	0.885810	Probability	0.361527	
Obs*R-squared	1.338267	Probability	0.247340	
Test Equation: LS // Dependent Variable is RESID				
Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	-0.086190	0.523590	-0.164613	0.8714
LNFDIND (-1)	0.001352	0.043974	0.030748	0.9759
INDTAX	0.001197	0.006996	0.171155	0.8664
M12BT	5.57E-05	0.021872	0.002548	0.9980
AGDPN (-1)	0.000817	0.003099	0.263573	0.7957
ASV	2.80E-05	0.002430	0.011520	0.9910
DUM	0.056446	0.335051	0.168469	0.8685
DUM1	-0.005008	0.058993	-0.084891	0.9335
RESID (-1)	-0.258413	0.274564	-0.941175	0.3615
R-squared	0.055761	Mean dependent var	1.12E-15	
Adjusted R-Squared	-0.447833	S.D. dependent var	0.085076	
S.E. of regression	0.102368	Akaike info criter	-4.278362	
Sum squared resid	0.157189	Schwartz criterion	-3.836592	
Log likelihood	26.28582	F-statistic	0.110726	
Durbin-Watson stat	1.839789	Prob (F-statistic)	0.998093	

White Heteroskedasticity Test:				
F-statistic	1.071549	Probability	0.457861	
Obs*R-squared	12.93480	Probability	0.373798	
Test Equation: LS // Dependent Variable is RESID^2 Sample: 1972 1995 Included observations: 24				
Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	-0.186862	1.219619	-0.153213	0.8810
LNFDIND (-1)	-0.004575	0.076953	-0.059456	0.9537
LNFDIND - 1^2	0.000905	0.003910	0.231428	0.8212
INDTAX	0.008397	0.038514	0.218014	0.8314
INDTAX^2	-7.15E-05	0.000398	-0.179515	0.8608
M12BT	-0.008966	0.014181	-0.632246	0.5401
M12BT^2	0.000205	0.000872	0.234987	0.8185
AGDPN (-1)	-0.001796	0.000966	-1.858574	0.0900
AGDPN-1^2	4.03E-05	3.14E-0	1.283112	0.2258
ASV	5.18E-06	0.000699	0.007415	0.9942
ASV^2	-1.50E-05	1.49E-0	-1.008486	0.3349
DUM	0.164911	0.718345	0.229570	0.8226
DUM1	0.016809	0.007913	2.124263	0.0571
R-squared	0.538950	Mean dependent var	0.006936	
Adjusted R-squared	0.035986	S.D. dependent var	0.011383	
S.E. of regression	0.011177	Akaike info criter	-8.684701	
Sum squared resid	0.001374	Schwartz criterion	-8.046588	
Log likelihood	83.16189	F-statistic	1.071549	
Durbin-Watson stat	2.729342	Prob (F-statistic)	0.457861	

LS // Dependent Variable is LNCORP

Sample: 1972 1995

Included observations: 24 after adjusting endpoints

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	-14.07832	6.470821	-2.175663	0.0449
CORTAX	0.405925	0.139487	2.910122	0.0102
GNPGH	0.007630	0.023954	0.318515	0.7542
M3BT	0.296800	0.078670	3.772730	0.0017
CPI	-0.083547	0.054073	-1.545090	0.1419
APRI (-1)	0.000538	0.010020	0.053722	0.9578
BFO	0.004641	0.000786	5.906213	0.0000
DUM1	0.441932	0.409058	1.080366	0.2960
R-squared	0.904274	Mean dependent var		8.463373
Adjusted R-squared	0.862394	S.D. dependent var		1.773702
S.E. of regression	0.657960	Akaike info criter		-0.576022
Sum squared resid	6.926574	Schwartz criterion		-0.183337
Log likelihood	-19.14226	F-statistic		21.59199
Durbin-Watson stat	1.349434	Prob (F-statistic)		0.000001

Breusch-Godfrey Serial Correlation LM Test:				
F-statistic	1.739641	Probability	0.206966	
Obs*R-squared	2.494162	Probability	0.114269	
Test Equation: LS // Dependent Variable is RESID				
Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	1.343461	6.407725	0.209663	0.8368
CORTAX	-0.022956	0.137477	-0.166981	0.8696
GNPGH	-0.004480	0.023664	-0.189319	0.8524
M3BT	-0.053914	0.087100	-0.618996	0.5452
CPI	0.029165	0.057303	0.508960	0.6182
APRI (-1)	-0.003387	0.010127	-0.334450	0.7427
BFO	-0.000111	0.000773	-0.143965	0.8874
DUM1	-0.053404	0.401963	-0.132857	0.8961
RESID (-1)	0.393450	0.298304	1.318954	0.2070
R-squared	0.103923	Mean dependent var	4.34E-15	
Adjusted R-squared	-0.373984	S.D. dependent var	0.548776	
S.E. of regression	0.643259	Akaike info criter	-0.602418	
Sum squared resid	6.206741	Schwartz criterion	-0.160648	
Log likelihood	-17.82551	F-statistic	0.217455	
Durbin-Watson stat	1.978195	Prob (F-statistic)	0.982309	

White Heteroskedasticity Test:				
F-statistic	2.103177	Probability	0.122008	
Obs*R-squared	17.57280	Probability	0.174424	
Test Equation:				
LS // Dependent Variable is RESID^2				
Sample: 1972 1995				
Included observations: 24				
Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	87.92289	35.91326	2.448201	0.0344
CORTAX	-4.617262	2.033149	-2.270991	0.0465
CORTAX^2	0.058132	0.027186	2.138281	0.0582
GNPGH	-0.037462	0.024294	-1.542044	0.1541
GNPGH^2	0.002964	0.001039	2.852091	0.0172
M3BT	-0.201265	0.381934	-0.526962	0.6097
M3BT^2	-0.011823	0.028997	0.407718	0.6921
CPI	0.187754	0.150411	1.248273	0.2404
CPI^2	-0.008593	0.006925	-1.240737	0.2430
APRI (-1)	0.006351	0.012752	0.498041	0.6292
APRI-1^2	0.000352	0.000318	1.104448	0.2953
BFO	0.007767	0.002883	2.694235	0.0225
BFO^2	-3.53E-06	1.13E-06	-3.122762	0.0108
DUM1	-0.861501	0.301604	-2.856397	0.0171
R-squared	0.732200	Mean dependent var	0.288607	
Adjusted R-squared	0.384060	S.D. dependent var	0.421210	
S.E. of regression	0.330573	Akaike info criter	-1.922655	
Sum squared resid	1.092788	Schwartz criterion	-1.235457	
Log likelihood	3.017337	F-statistic	2.103177	
Durbin-Watson stat	3.002070	Prob (F-statistic)	0.122008	

White Heteroskedasticity Test:				
F-statistic	2.103177	Probability	0.122008	
Obs*R-squared	17.57280	Probability	0.174424	
Test Equation: LS // Dependent Variable is RESID^2 Sample: 1972 1995 Included observations: 24				
Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	87.92289	35.91326	2.448201	0.0344
CORTAX	-4.617262	2.033149	-2.270991	0.0465
CORTAX^2	0.058132	0.027186	2.138281	0.0582
GNPGH	-0.037462	0.024294	-1.542044	0.1541
GNPGH^2	0.002964	0.001039	2.852091	0.0172
M3BT	-0.201265	0.381934	-0.526962	0.6097
M3BT^2	-0.011823	0.028997	0.407718	0.6921
CPI	0.187754	0.150411	1.248273	0.2404
CPI^2	-0.008593	0.006925	-1.240737	0.2430
APRI (-1)	0.006351	0.012752	0.498041	0.6292
APRI-1^2	0.000352	0.000318	1.104448	0.2953
BFO	0.007767	0.002883	2.694235	0.0225
BFO^2	-3.53E-06	1.13E-06	-3.122762	0.0108
DUM1	-0.861501	0.301604	-2.856397	0.0171
R-squared 0.732200 Mean dependent var 0.288607				
Adjusted R-squared 0.384060 S.D. dependent var 0.421210				
S.E. of regression 0.330573 Akaike info criter -1.922655				
Sum squared resid 1.092788 Schwartz criterion -1.235457				
Log likelihood 3.017337 F-statistic 2.103177				
Durbin-Watson stat 3.002070 Prob (F-statistic) 0.122008				

LS // Dependent Variable is LNSVIND  
Sample: 1971 1995  
Included observations: 25 after adjusting endpoints

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	0.914452	0.314922	2.903739	0.0099
LNSVIND (-1)	0.935027	0.027440	34.07492	0.0000
INDTAX	-0.004929	0.005847	-0.842990	0.4109
SVR	0.010297	0.019679	0.523258	0.6075
AGFDIND	-0.003993	0.001118	-3.572151	0.0023
AGDPN	0.003657	0.002603	1.405000	0.1780
DUM	-0.132617	0.281063	-0.471841	0.6430
DUM1	-0.062121	0.043476	-1.428845	0.1712
R-squared	0.996410	Mean dependent var	8.630086	
Adjusted R-squared	0.994932	S.D. dependent var	1.103552	
S.E. of regression	0.078564	Akaike info criter	-4.833342	
Sum squared resid	0.104930	Schwartz criterion	-4.443302	
Log likelihood	32.94331	F-statistic	674.0440	
Durbin-Watson stat	2.249719	Prob (F-statistic)	0.000000	

Breusch-Godfrey Serial Correlation LM Test:				
F-statistic	0.752074	Probability	0.398640	
Obs*R-squared	1.122359	Probability	0.289411	
Test Equation: LS // Dependent Variable is RESID				
Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	-0.082037	0.331048	-0.247810	0.8074
LNSVIND (-1)	-0.002069	0.027745	-0.074559	0.9415
INDTAX	0.001247	0.006063	0.205664	0.8396
SVR	0.005462	0.020800	0.262609	0.7962
AGFDIND	-0.000179	0.001145	-0.156632	0.8775
AGDPN	0.000775	0.002770	0.279841	0.7832
DUM	0.074405	0.295849	0.251496	0.8046
DUM1	-0.018061	0.048496	-0.372419	0.7145
RESID (-1)	-0.264348	0.304822	-0.867222	0.3986
R-squared	0.044894	Mean dependent var	-3.41E-16	
Adjusted R-squared	-0.432658	S.D. dependent var	0.066122	
S.E. of regression	0.079143	Akaike info criter	-4.799275	
Sum squared resid	0.100219	Schwartz criterion	-4.360480	
Log likelihood	33.51748	F-statistic	0.094009	
Durbin-Watson stat	1.977978	Prob (F-statistic)	0.998961	

## **Chapter 8**

### **TAXATION OF FINANCIAL ASSETS IN NEPAL**

**by**

***Rameshwori Pant***

#### **I. Taxation of Financial Assets in Nepal**

##### **1.1 Introduction**

Nepal is one of the least developed country in the world with a low level of per capita income of US\$170 and is facing many challenges in the development process. Agriculture is the mainstay of the economy which alone contributes 60 per cent of GDP and employs 80 per cent of the labour forces. The industrial sector, which accounts about 10 per cent of GDP provides employment for less than 10 per cent of total labour force. Nepal has a population of about 20 million which is expected to be double in 25 years. Social indicators are far below from the average of the South Asian region. Nepal has a long and open border with India which has limited the effectiveness of major economic policies to move independently. As such, the trade, exchange rates, interest rates and price policies should be parallel with that of Indian policies.

More than a century (from 1846 - 1951) Nepal remained the most primitive state while most of the countries in the world were achieving significant progress during that period. The 104 years of Rana regime of Nepal was a period of political instability. Except setting up of the first commercial bank i.e. Nepal Bank Limited in 1937, Nepal did not have any economic development policy. Any reform measure was strictly judged from a very short-sighted point of view. Few large scale industries were set up during the second world war. They also liquidated after the war was over. In the absence of resource mobilisation process and other adequate policy measures, the economy of Nepal remained more or less stagnant over a long period.

In 1950 the Rana regime was overthrown and Nepal had started a programme of economic development. Although just before the

outbreak of the second world war, a 20-years plan was released but no effort was done for its implementation. In 1949, a National Planning Committee was formed with the purpose of preparing a 15 years plan of development and the committee prepared a draft plan without the base of available resources. After February 1951, a number of steps were taken for the economic development of the country. In Nepal, the first budget was prepared in 1952 and in the same year a separate Ministry of Planning was set up with a view to coordinating various developmental projects. In 1955, a draft outline of the First plan was prepared to present in the 1955 Colombo plan meeting. A more detailed framework was prepared in 1956 and from that year the economic development on planned basis started in Nepal with the first Five Year Plan covering the period 1956-1961. Due to the lack of expert manpower, necessary data and experience knowledge for programming, the First Five Year Plan could not make significant progress in the economic development of Nepal. But the plan established a tradition of planned economic development. Since then Nepal has completed seven periodic plans and is currently launching the Eight Five Year Plan. In order to achieve rapid economic growth and development within the shortest possible time, each succeeding plan had larger financial outlay than the previous one which can be seen in Table 8.1.

The total development outlay of the Fifth Plan contained a minimum and a maximum programming. Second plan covered only three years period. The major objectives are however the same in each plan which are summarised as follows:

The major objectives of each plan are:

### **The First Plan**

To increase in production, employment and people's living standard.

### **The Second Plan**

To increase in production and employment, establish social order and reduce gradually the social and economic inequalities.

### **The Third Plan**

To promote welfare of the people by securing and protecting social order with a target of doubling national income in 15 years.

### **The Fourth Plan**

To maximise output by establishing the base for sustained long term economic growth (vis. transport, communication, power, etc.), expand and diversify international trade, secure accelerated pace of development with maximum economic stability by controlling price level and make effective use of manpower and control population growth.

### **The Fifth Plan**

The underlying objectives of the Fifth Plan were significantly different from those of previous plans. The objectives was not only to maximise output, but also to make such output consistent with the minimum felt needs of the people.

### **The Sixth Plan**

To increase in production and employment opportunities and to fulfill the basic needs of the people.

### **The Seventh Plan**

To increase in production at a higher rate, enhance the opportunities for productive employment and to fulfill the maximum basic needs of the people (foodgrain, clothing, fuelwood, drinking water, primary health care and sanitation, primary and skill based education and adult education, minimum rural transport facilities and security).

### **The Eighth Plan**

The major programs are the sustainable economic growth, poverty alleviation, and reduction of regional imbalances. It is estimated that 5.1 per cent average annual growth rate will be achieved during the plan period. This growth rate is higher ever during the last thirty years.

Table 8.1

**TOTAL DEVELOPMENT OUTLAYS IN VARIOUS PLANS**

(Rs in Million)

Plan	Period	Total Outlay	Percentage Change in Outlay
First Plan	1956-1961	330	-
Second Plan	1962-1965	600	81.8
Third Plan	1965-1970	2500	316.7
Fourth Plan	1970-1975	3530	41.2
Fifth Plan	1975-1980	9197 (Min)	160.5
		11404 (Max)	223.1
Sixth Plan	1980-1985	22300	142.5
Seventh Plan	1985-1990	50410	126.1
Eighth Plan	1992-1997	113479	125.1

Source: Various Plans, National Planning Commission, Nepal.

## **Budgetary Practices in Nepal**

There was no system of modern budgeting in Nepal till 1951 and only in 1952 a national budget was prepared and legislated. Since then the budget has been prepared and legislated for every year. The consolidated figure of revenue and expenditure of the government began to be made public through the budget. Until 1955 only the regular expenditure used to be presented in the budget because no developmental works were being carried out in the country in a planned way. In 1956 when the First Five Year Plan was introduced and from 1958 the government budget started to present the expenditure allocated for development purposes.

In the budget the revenue and expenditure figures of three consecutive years are presented. The first year's figures are presented in the actual form the second set of figures in the revised form and the third set which is the current year budget figures are presented in the estimated form.

### **Regular Expenditure**

In Nepal, the regular expenditure presented in the budget covers the expenditure incurred on constitutional organs, general administration, revenue administration, economic administration and planning, judicial administration, foreign services, defence, social services, economic services, loans and investment, loan repayment and interest and miscellaneous expenses. The budget estimate for the regular expenditure is prepared on the basis of the past performance of the regular expenditure.

In Nepal, the regular expenditure of the government is increasing every year. The average increase of government expenditure during the review period is 21.1 per cent. The share of regular expenditure in total expenditure is increasing every year. It was 36.1 per cent in 1975 and 36.9 per cent in 1994. Up to nine months of 1995 the regular expenditure as percentage of total expenditure has reached 50.3 per cent. The regular expenditure as percentage of GDP was 3.3 per cent in 1975 and has climbed up to 6.5 per cent in 1994.

### **Development Expenditure**

Development expenditure are the expenditure incurred for developmental purposes. Development works to be conducted in the coun-

Table 8.2

**BUDGET COMPOSITION OF NEPAL**

(Rs in Million)

	<b>1993/94 Actuals</b>	<b>1994/95 Revised Estimates</b>	<b>1995/96 Budget Estimate</b>
Total Expenditure	33,597.4	38,942.7	51,647.8
Regular	12,409.2	19,577.6	22,821.5
Development	21,188.2	19,365.1	28,826.3
Sources of Financing	21,974.3	27,444.1	37,164.7
Revenue	19,580.5	24,567.4	31,605.0
Foreign Grants	2,395.5	2,876.7	5,559.7
Surplus (+) Deficit (-)	-11,623.1	-11498.6	-14,483.1
<b><i>Sources of Deficit Financing</i></b>			
Internal Borrowing	1,820.0	1,776.2	2,200.0
External Borrowing	9,163.6	9,052.7	12,283.1
Cash Balance (-Surplus)	639.5	669.7	-

Source: Budget Speech of the Fiscal Year 1995/96.

Table 8.3

## GOVERNMENT EXPENDITURE AND SOURCES OF FINANCE

(Rs. in Million)

Year	Total Expend.	% Change	Regular Expend.	% Change	Develop. Expend.	% Change	Budgetary Deficit	% Change	Internal Financing	% Change	External Financing	% Change	Cash Balance	% Change
1975	1513.7	-	546.5	-	967.2	-	-222.5	-	100.0	-	104.0	-	18.5	-
1976	1913.3	26.4	674.5	23.4	1238.8	28.1	-438.0	96.9	200.0	100.0	145.9	40.3	92.1	397.8
1977	2330.4	21.8	832.1	23.4	1498.3	20.9	-614.9	40.4	300.0	50.0	164.3	12.6	150.6	63.5
1978	2674.9	14.8	866.9	4.2	1808.0	20.7	-626.3	1.9	240.0	-20.0	381.8	132.4	4.5	-97.0
1979	3020.5	12.9	1041.7	20.2	1978.8	9.4	-609.4	-2.7	200.0	-16.7	390.2	2.2	19.2	326.7
1980	3470.7	14.9	1162.1	11.6	2308.6	16.7	-785.1	28.8	180.0	-10.0	534.9	37.1	70.2	265.6
1981	4092.3	17.9	1361.2	17.1	2731.1	18.3	-804.2	2.4	250.0	38.9	693.3	29.6	-139.1	-298.1
1982	5361.3	31.0	1634.4	20.1	3726.9	36.5	-1688.2	109.9	500.0	100.0	729.9	5.3	458.6	-429.7
1983	6979.2	30.2	1997.1	22.2	4982.1	33.7	-3047.5	80.5	-1000.0	100.0	985.8	35.1	1061.7	131.5
1984	7437.3	6.6	2273.5	13.8	5163.8	3.6	-3151.4	3.4	1576.8	57.7	1670.9	69.5	-96.3	-109.1
1985	8394.8	12.9	2906.1	27.8	5488.7	6.3	-3554.8	12.8	1799.9	14.1	1754.9	5.0	0.0	-100.0
1986	9797.1	16.7	3584.0	23.3	6213.1	13.2	-3979.7	12.0	1403.4	-22.0	2501.1	42.5	75.2	-
1987	11513.2	17.5	4135.2	15.4	7378.0	18.7	-4253.0	6.9	1644.7	17.2	2705.8	8.2	-97.5	-223.7
1988	14105.0	22.5	4677.0	13.1	9428.0	27.8	-4677.8	10.0	1130.0	-31.3	3815.8	41.0	-268.0	174.9
1989	18005.0	27.6	5676.2	21.4	12328.8	30.8	-8547.5	82.7	1330.0	17.7	5668.4	48.5	1551.1	-678.8
1990	19669.3	9.2	6671.8	17.5	12997.5	5.4	-8406.4	-1.7	2150.0	61.7	5959.6	5.2	296.8	-80.9
1991	23549.8	19.7	7570.3	13.5	15979.5	22.9	-10655.1	26.7	4552.7	111.8	8255.7	5.0	-154.3	-152.0
1992	26418.2	12.2	9905.4	30.8	16512.8	3.3	-11261.7	5.7	2078.8	-54.3	6816.9	9.0	2366.0	-1633.4
1993	30897.7	17.0	11484.1	15.9	19413.6	17.6	-11956.0	6.2	1620.0	-22.1	6920.9	1.5	3415.1	44.3
1994	33597.4	8.7	12409.2	8.1	21188.2	9.1	-11623.0	-2.6	1820.0	12.3	9163.6	32.4	639.4	-81.3
**1995	36942.7	15.9	19577.6	57.8	19365.1	-8.6	-11498.6	-1.1	1776.2	-2.4	9052.7	-1.2	-	-
Average		18.8		21.1		17.6		27.3		26.5		29.5		-130.8

\* Up to nine months figure.

Source: Economic Survey 1994/95, His Majesty's Government, Ministry of Finance.

try during the years is prepared by the planning commission. And there are also some ongoing projects whose expenditures are also incurred in the development expenditure of the present year. In Nepal, the development expenditure incurred in administration reform, economic administration and planning (planning and statistics), social services, and economic services are included in the development expenditure. The average percentage share of development expenditure over the review period is 17.6 per cent. The share of development expenditure on total expenditure was 63.9 per cent in 1975 and 63.1 per cent in 1994. Up to the nine months of 1995 its share is 49.7 per cent.

## **1.2 Sources of Revenue**

### **Tax Revenue**

As the economy develops and its national income goes up the tax revenue also increases without much effort. However, in a developing country like Nepal, which has started the process of economic development about four decades before the increases in tax revenue may not come about by themselves unless sustained and continuous efforts are made for raising the revenue. In Nepal, before 1951, the main source of revenue consisted of traditional items like land revenue, customs and excise duties, royalties on contracts for falling trees and vehicle and liquor licensing fees and so on. The system of imposing direct tax was almost unknown. Till 1959 foreign aid had become the only source for financing the developmental activities. The government income was too low even to meet the regular expenditure. In recent years taxation is looked as a powerful tool for raising government revenue and the internal resource mobilisation. As a result, the government is imposing various direct and indirect taxes in Nepal. The tax revenue is increasing every year on total revenue was 83.47 per cent in 1975 and it was 78.5 per cent in 1994. Up to the nine months figure of 1995 it has reached 79.3 per cent.

## **1.3 Major Indirect Taxes**

### **1.3.1 Custom Duties**

Nowadays, custom duty is the most important source of government revenue, which was one of the neglected sources of income before 1951. The custom revenue as a percentage of total tax revenue

Table 8.4

**REGULAR AND DEVELOPMENT EXPENDITURE  
ON TOTAL EXPENDITURE**

(Rs in Million)

Year	Total Expenditure	Regular Expenditure	% Share	Development Expenditure	% Share
1975	1513.70	546.50	36.10	967.20	63.90
1976	1913.30	674.50	35.25	1238.80	64.75
1977	2330.40	832.10	35.71	1498.30	64.29
1978	2674.90	866.90	32.41	1808.00	67.59
1979	3020.50	1041.70	34.49	1978.80	65.51
1980	3470.70	1162.10	33.48	2308.60	66.52
1981	4092.30	1361.20	33.26	2731.10	66.74
1982	5361.30	1634.40	30.49	3726.90	69.51
1983	6979.20	1997.10	28.62	4982.10	71.38
1984	7437.30	2273.50	30.57	5163.80	69.43
1985	8394.80	2906.10	34.62	5488.70	65.38
1986	9797.10	3584.00	36.58	6213.10	63.42
1987	11513.20	4135.20	35.92	7378.00	64.08
1988	14105.00	4677.00	33.16	9428.00	66.84
1989	18005.00	5676.20	31.53	12328.80	68.47
1990	19669.30	6671.80	33.92	12997.50	66.08
1991	23549.80	7570.30	32.15	15979.50	67.85
1992	26418.20	9905.40	37.49	16512.80	62.51
1993	30897.70	11484.10	37.17	19413.60	62.83
1994	33597.40	12409.20	36.94	21188.20	63.06
1995	38942.70	19577.60	50.27	19365.10	49.73

Source: Economic Survey 1994/95, His Majesty's Government, Ministry of Finance.

Table 8.5

## AS PERCENTAGE OF NOMINAL GDP

YEAR	TR	TXR	NTXR	TDT	TIT	TE	RE	DE	BD	INTF	EXTF	IMD	EXD	INDP	SLT	ENTT	CONTT	LR	H & LR	ITPEN	ITIN	TINT	M1	M2	GDS	TINV	TCOIN	PVTCON	PUBCON
1975	6.1	5.1	1.0	1.1	4.0	9.1	3.3	5.8	-1.3	0.6	0.6	1.1	0.2	0.7	1.1	0.0	0.0	0.5	0.2	0.3	0.0	0.0	8.1	12.5	10.0	14.5	90.0	82.4	7.6
1976	6.4	5.2	1.2	1.4	3.9	11.0	3.9	7.1	-2.5	1.1	0.8	1.2	0.2	0.8	0.9	0.0	0.1	0.5	0.2	0.5	0.0	0.0	8.4	14.5	11.7	15.1	88.3	80.8	7.4
1977	7.7	6.4	1.3	1.7	4.7	13.5	4.8	8.7	-3.6	1.7	1.0	1.2	0.3	1.0	1.3	0.1	0.1	0.6	0.2	0.8	0.0	0.0	10.7	18.7	13.5	16.0	86.5	79.2	7.3
1978	8.0	6.3	1.7	1.6	4.8	13.6	4.4	9.2	-3.2	1.2	1.9	1.7	0.2	0.8	1.4	0.1	0.1	0.4	0.3	0.2	0.4	0.0	10.4	19.1	12.9	17.8	87.1	79.7	7.5
1979	8.2	6.6	1.5	1.1	5.5	13.6	4.7	8.9	-2.7	0.9	1.8	2.4	0.2	0.9	1.6	0.0	0.1	0.2	0.3	0.1	0.3	0.0	11.3	20.3	11.6	15.8	88.4	79.9	8.5
1980	8.1	6.5	1.5	1.1	5.5	14.9	5.0	9.9	-3.4	0.8	2.3	0.2	0.3	0.9	1.7	0.0	0.1	0.2	0.3	0.1	0.2	0.0	12.1	22.6	11.1	16.3	88.9	82.2	6.7
1981	8.9	7.5	1.4	1.3	6.2	15.0	5.0	10.0	-2.9	0.9	2.5	2.5	0.3	0.9	2.0	0.0	0.1	0.4	0.3	0.2	0.3	0.0	11.7	23.1	10.9	17.6	89.1	82.1	7.0
1982	8.6	7.1	1.5	1.2	5.9	17.3	5.3	12.0	-5.4	1.6	2.4	2.4	0.1	1.0	1.9	0.0	0.1	0.3	0.3	0.1	0.5	0.0	11.7	24.1	10.0	17.1	90.1	81.6	8.5
1983	8.4	7.2	1.2	1.3	5.9	20.7	5.9	14.8	-9.0	3.0	2.9	2.1	0.1	1.1	2.1	0.0	0.2	0.2	0.3	0.2	0.5	0.0	12.9	27.3	8.8	19.6	91.4	81.3	10.1
1984	8.7	6.9	1.7	1.4	5.6	18.9	5.8	13.1	-8.0	4.0	4.2	1.9	0.1	1.1	2.0	0.1	0.2	0.2	0.3	0.2	0.5	0.0	12.5	26.5	9.9	18.7	90.1	80.9	9.3
1985	8.8	7.1	1.7	1.3	5.8	18.9	6.5	12.4	-8.0	4.1	3.9	2.0	0.1	1.1	1.9	0.1	0.2	0.2	0.3	0.2	0.4	0.0	12.3	27.7	14.0	22.9	90.8	81.0	9.8
1986	8.7	6.9	1.9	1.2	5.6	18.4	6.7	11.7	-7.5	2.6	4.7	2.0	0.1	1.0	1.9	0.0	0.2	0.1	0.3	0.2	0.4	0.0	13.2	28.5	11.1	19.9	93.7	84.2	9.5
1987	9.8	7.2	2.6	1.3	5.9	18.8	6.8	12.1	-7.0	2.7	4.4	2.1	0.1	1.1	1.9	0.0	0.2	0.1	0.3	0.2	0.5	0.0	13.3	28.6	12.0	21.1	92.5	83.0	9.5
1988	10.0	7.9	2.2	1.4	6.5	19.3	8.4	12.9	-6.4	1.5	5.2	2.7	0.1	1.1	1.8	0.0	0.3	0.1	0.4	0.3	0.5	0.0	13.1	29.3	10.4	20.8	94.7	85.3	9.4
1989	9.1	7.3	1.7	1.6	5.8	21.0	8.6	14.4	-10.0	1.5	6.6	2.5	0.1	1.0	1.6	0.0	0.2	0.1	0.4	0.3	0.7	0.0	13.7	31.0	11.6	22.6	92.2	81.8	10.4
1990	9.3	7.3	2.0	1.4	5.9	19.7	6.7	13.0	-8.4	2.2	6.0	2.7	0.0	1.1	1.7	0.0	0.2	0.1	0.4	0.2	0.6	0.0	14.3	31.6	8.2	19.1	95.6	86.6	9.0
1991	9.2	7.0	2.2	1.2	5.9	20.3	6.5	13.8	-9.2	3.9	5.4	2.4	0.1	1.0	1.7	0.0	0.1	0.1	0.4	0.1	0.5	0.0	14.0	32.5	9.9	21.6	93.7	84.2	9.5
1992	9.3	6.8	2.5	1.1	5.7	18.2	6.8	11.4	-7.8	1.4	4.7	1.9	0.1	1.0	2.0	0.0	0.1	0.0	0.4	0.1	0.4	0.0	13.4	31.5	11.2	21.8	92.0	83.7	8.2
1993	9.2	7.1	2.1	1.2	5.8	18.7	6.9	11.7	-7.2	1.0	4.2	1.9	0.1	0.9	2.1	0.0	0.2	0.0	0.4	0.2	0.5	0.0	14.4	35.3	12.0	22.0	91.7	82.7	9.0
1994	10.3	8.0	2.2	1.5	6.6	17.6	6.5	11.1	-6.1	1.0	4.8	2.3	0.2	0.8	2.5	0.1	0.2	0.0	0.3	0.6	0.1	14.9	36.5	13.0	21.4	91.4	81.9	9.5	
1995	8.0	6.3	1.6	1.1	5.2	18.5	9.3	9.2	-5.5	0.8	4.3	1.9	0.1	0.5	2.0	0.0	0.1	0.0	0.3	0.2	0.2	0.0	15.4	38.0	0.0	0.0	0.0	0.0	0.0

Here,

TR	Total Revenue	ENTT	Entertainment Tax
TXR	Tax Revenue	CONTT	Contract Tax
MTXR	Net Tax Revenue	LR	Land Revenue
TDT	Total Direct Tax	H & LR	House & Land Revenue
TIT	Total Indirect Tax	ITPEN	Income Tax from Public Enterprise
TE	Total Expenditure	ITTN	Income Tax from Individuals
RE	Regular Expenditure	TINT	Tax on Interest
DE	Development Expenditure	M1	M1 Money
BD	Budget Deficit	M2	M2 Money
INTF	Internal Financing	GDS	Gross Domestic Saving
EXTF	External Financing	TINV	Total Investment
IMD	Import Duties	TCOIN	Total Consumption
EXD	Export Duties	PVTCON	Private Consumption
INDP	Industrial Product	PUBCON	Public Consumption
SLT	Sales Tax		

is 25.3 per cent in 1975 and which has gone up by 31.1 per cent in 1994 and 32.9 per cent up to the nine months of 1995. The share of customs duties on indirect taxes is 45.9 per cent in 1975 to 38.2 per cent in 1994 and 39.8 per cent up to the nine months of 1995.

Custom duties can be classified as import and export duties. Import duties are levied at the goods imported within the country and the export duty is levied to the goods exported from the country to the outside world. In consonance with the policy of gradually reducing the custom tariff and making it simple clear and transparent, the budget of the FY 1996 has re-grouped the majority of the goods into four categories and the custom duties rate of 5, 10, 20 and 40 per cent is levied in these goods. However, a special rate of 110.0 per cent duty has been imposed for some goods like light vehicles, beer, wine, arms and ammunition, cigarette, pipe tobacco, etc. which are normally consumed by a certain class of higher income group. Export duty of 0.5 per cent has been levied on the exportable goods as a service charge.

### ***1.3.2 Excise Duties***

The excise duties are levied on commodities which are both produced and consumed internally. In recent years with the increasing speed of the process of development the excise duties have received importance. In Nepal, the major sources of excise duties are cigarettes, bidis, high and low quality liquor and beer and the specific rate is levied in these commodities. However 10, 15 and 35 per cent excise duties are levied on some industrial production. The excise duties as the share of total tax revenue is 14.22 per cent in 1975, and 10.36 per cent in 1994 and 7.74 per cent up to the nine months of 1995.

### ***1.3.3 Sales Tax***

His majesty's Government of Nepal introduced sales tax on a very modest scale in 1965/66 exempting basic food materials, reading and writing materials and medical articles. The sales tax is assessed on the sales turnover of a dealer and collected from that dealer. The present rate of sales tax in Nepal is 10 per cent and 20 per cent. In Nepal, the average percentage change of sales tax during the review period is 18.6 per cent and sales tax as a percentage of total tax revenue in 1975 is 22.63 per cent and 28.99 per cent of total indirect tax revenue. Its share in 1994 has increased to 30.53 per cent of total tax revenue

Table 8.6

## TOTAL RESOURCES OF HMG

(Rs in Million)

Year	Total			Tax			Non-Tax			Direct			Indirect		
	Revenue	% Change	% Change	Revenue	% Change	% Change	Revenue	% Change	% Change	Tax	% Change	% Change	Tax	% Change	% Change
1975	1008.40	-	-	841.70	-	-	166.70	-	-	184.50	-	-	657.20	-	-
1976	1116.10	10.68	10.68	911.20	8.26	8.26	204.90	22.92	22.92	236.00	27.91	27.91	675.20	27.91	2.74
1977	1322.90	18.53	18.53	1100.10	20.73	20.73	222.80	8.74	8.74	295.70	25.30	25.30	804.40	19.14	19.14
1978	1582.10	19.59	19.59	1243.90	13.07	13.07	338.20	51.80	51.80	306.20	3.55	3.55	937.70	16.57	16.57
1979	1811.70	14.51	14.51	1476.80	18.72	18.72	334.90	-0.98	-0.98	253.10	-17.34	-17.34	1223.70	30.50	30.50
1980	1880.00	3.77	3.77	1528.80	3.52	3.52	351.20	4.87	4.87	253.80	0.28	0.28	1275.00	4.19	4.19
1981	2419.20	28.68	28.68	2035.70	33.16	33.16	383.50	9.20	9.20	353.20	39.16	39.16	1682.50	31.96	31.96
1982	2679.50	10.76	10.76	2211.30	8.63	8.63	468.20	22.09	22.09	379.20	7.36	7.36	1831.40	8.85	8.85
1983	2841.60	6.05	6.05	2421.10	9.49	9.49	420.50	-10.19	-10.19	445.10	17.39	17.39	1976.00	7.90	7.90
1984	3408.30	19.98	19.98	2737.00	13.05	13.05	672.30	59.88	59.88	541.80	21.73	21.73	2195.20	11.09	11.09
1985	3916.80	14.89	14.89	3151.20	15.13	15.13	765.60	13.88	13.88	559.70	3.30	3.30	2591.50	18.05	18.05
1986	4644.50	18.58	18.58	3659.30	16.12	16.12	985.20	28.68	28.68	661.80	18.24	18.24	2997.50	15.67	15.67
1987	5975.10	28.65	28.65	4372.40	19.49	19.49	1602.70	62.68	62.68	768.70	16.15	16.15	3603.70	20.22	20.22
1988	7350.40	23.02	23.02	5752.80	31.57	31.57	1597.60	-0.32	-0.32	1010.20	31.42	31.42	4742.60	31.60	31.60
1989	7776.80	5.80	5.80	6287.20	9.29	9.29	1489.60	-6.76	-6.76	1331.40	31.80	31.80	4955.80	4.50	4.50
1990	9287.50	19.43	19.43	7283.90	15.85	15.85	2003.60	34.51	34.51	1435.10	7.79	7.79	5848.80	18.02	18.02
1991	10729.80	15.53	15.53	8176.30	12.25	12.25	2553.50	27.45	27.45	1369.70	-4.56	-4.56	6807.60	16.39	16.39
1992	13512.70	25.94	25.94	9875.60	20.78	20.78	3637.10	42.44	42.44	1595.20	16.46	16.46	8280.40	21.63	21.63
1993	15148.40	12.10	12.10	11662.50	18.09	18.09	3485.90	-4.16	-4.16	2036.20	27.65	27.65	9626.30	16.25	16.25
1994	19580.80	29.26	29.26	15371.40	31.80	31.80	4209.40	20.76	20.76	2855.20	40.22	40.22	12516.20	30.02	30.02
1995 *	16742.50	-14.50	-14.50	13271.80	-13.66	-13.66	3470.70	-17.55	-17.55	3202.60	-19.35	-19.35	10969.20	-12.36	-12.36

\* Up to nine months figure.

Source: Economic Survey 1994/95. His Majesty's Government (HMG), Ministry of Finance.

Table 8.7

**SHARE OF TAX AND NON-TAX REVENUE ON TOTAL REVENUE**

(Rs in Million)

Year	Total Revenue	Tax Revenue	% Share	Non-Tax Revenue	% Share
1975	1008.40	841.70	83.47	166.70	16.53
1976	1116.10	911.20	81.64	204.90	18.36
1977	1322.90	1100.10	83.16	222.80	16.84
1978	1582.10	1243.90	78.62	338.20	21.38
1979	1811.70	1476.80	81.51	334.90	18.49
1980	1880.00	1528.80	81.32	351.20	18.68
1981	2419.20	2035.70	84.15	383.50	15.85
1982	2679.50	2211.30	82.53	468.20	17.47
1983	2841.60	2421.10	85.20	420.50	14.80
1984	3409.30	2737.00	80.28	672.30	19.72
1985	3916.80	3151.20	80.45	765.60	19.55
1986	4644.50	3659.30	78.79	985.20	21.21
1987	5975.10	4372.40	73.18	1602.70	26.82
1988	7350.40	5752.80	78.27	1597.60	21.73
1989	7776.80	6287.20	80.85	1489.60	19.15
1990	9287.50	7283.90	78.43	2003.60	21.57
1991	10729.80	8176.30	76.20	2553.50	23.80
1992	13512.70	9875.60	73.08	3637.10	26.92
1993	15148.40	11662.50	76.99	3485.90	23.01
1994	19580.80	15371.40	78.50	4209.40	21.50
1995 *	16742.50	13271.80	79.27	3470.70	20.73

\* Up to nine months figure.

Source: Economic Survey 1994/95 His Majesty's Government Ministry of Finance.

and 37.50 per cent in indirect tax revenue. Sales tax if properly levied do not raise the revenue of the government but also can curtail the consumption of the luxurious and non-necessaries goods. The sales tax as a percentage of GDP is 1.15 per cent in 1975 to 2.46 per cent in 1994 and 2.03 per cent up to the nine months of 1995.

## **1.4 Direct Taxes**

### **1.4.1 Income Tax**

Progressive taxation in the form of taxes on income and wealth is important to correct the economic inequalities in the economy. Until 1960, there was no any type of income tax and the income tax in the form of urban property tax, business profit tax and revenue surcharge was introduced in 1960 after the department of tax was set up. Taxation, specially income tax is a matter of habit in a country, however in our country in the context of both the tax administration and the attitude of the tax paying public, the income tax cannot be raised at once. In the future income tax may be the important source of revenue. His Majesty's Government in recent years has introduced the self-assessment tax system which is showing the encouraging sign in the urban areas and more tax payees are covered in the tax net. However, the revenue from income taxes from the public is increasing every year. The share of income tax was 6.8 per cent of total tax revenue in 1978 which is 7.7 per cent in 1994 and the share of income tax in total direct tax is 27.76 per cent and it is 41.50 per cent in 1994. The income tax from individuals as a percentage of total GDP is 0.43 per cent in 1978 and 0.62 per cent in 1994 and 0.23 per cent up to the nine months of 1995. The present rate of income tax in Nepal is as follows:

#### *Exemption Limit*

For unmarried individual	-	Rs. 25,000
For married couple and family	-	Rs. 35,000
Up to first additional Rs. 25,000	-	10 per cent
Additional Rs. 40,000 thereafter	-	25 per cent
Any additional amount thereafter	-	30 per cent

The highest rate of corporate income tax is 33.0 per cent. Income tax has been fully exempted for domestic industries for the portion of

Table 8.8

## MAJOR INDIRECT TAXES &amp; PERCENTAGE CHANGE

(Rs in Million)

Year	Import Duties	% Change	Export Duties	% Change	Excise Duties	% Change	Entertain Tax	% Change	Contract Tax	% Change	Sales Tax	% Change
1975	182.30	-	30.90	-	119.70	-	5.80	-	7.50	-	190.50	-
1976	204.50	12.18	37.70	22.01	132.10	10.36	7.00	20.69	9.50	26.67	161.90	-15.01
1977	215.70	5.48	47.60	26.26	166.10	25.74	8.70	24.29	11.80	24.21	222.00	37.12
1978	334.10	54.89	38.70	-18.70	164.40	-1.02	9.90	13.79	12.90	9.32	273.10	23.02
1979	535.80	60.37	54.40	40.57	192.60	17.15	9.80	-1.01	16.70	29.46	356.80	30.65
1980	504.80	-5.79	62.60	15.07	215.20	11.73	9.50	-3.06	18.50	10.78	401.20	12.44
1981	665.10	35.72	69.50	11.02	242.20	12.55	12.00	26.32	36.90	99.46	537.70	34.02
1982	739.50	7.94	42.20	-39.28	305.70	26.22	15.20	26.67	43.00	16.53	597.40	11.10
1983	714.80	-3.34	25.10	-40.52	365.80	19.66	16.30	7.24	70.50	63.95	709.30	18.73
1984	746.20	4.39	30.40	21.12	432.20	18.15	24.00	47.24	78.30	11.06	770.70	8.66
1985	907.60	21.63	55.70	83.22	483.90	11.96	24.40	1.67	103.60	32.31	845.80	9.74
1986	1081.10	19.12	73.30	31.60	558.70	15.46	22.30	-8.61	117.00	12.93	985.90	16.56
1987	1285.30	18.89	79.40	8.32	678.60	21.46	26.90	20.63	126.30	7.95	1143.80	16.02
1988	1964.20	54.38	107.90	35.89	825.30	21.62	32.30	20.07	199.10	57.64	1300.50	13.70
1989	2133.90	7.54	62.70	-41.89	877.70	6.35	32.80	1.55	193.20	-2.96	1379.70	6.09
1990	2646.00	24.00	32.60	-48.01	1097.00	24.99	33.50	2.13	170.50	-11.75	1650.10	19.60
1991	2752.60	4.03	78.50	140.80	1200.20	9.41	39.40	17.61	173.30	1.64	2026.10	22.79
1992	2795.20	1.55	114.70	46.11	1414.30	17.84	38.30	-2.79	213.30	23.08	2840.70	40.21
1993	3178.00	13.69	140.70	22.67	1452.80	2.72	53.10	38.64	293.00	37.37	3438.20	21.03
1994	4356.00	37.07	427.00	203.48	1592.50	9.62	112.20	111.30	356.50	21.67	4693.10	36.50
1995 *	4093.60	-6.02	267.50	-37.35	1027.70	-35.47	56.80	-49.38	269.00	-24.54	4272.00	-6.97
Average		19.35		25.39		12.97		16.58		23.51		18.63

\* Up to nine months figure

Source : Economic Survey 1994/95. His Majesty's Government, Ministry of Finance.

their products sold in convertible currency to bilateral and multilateral assisted projects, through the successful bidding under International Competitive Bidding (ICB) system. The valuation of property tax, though limited to land and buildings only, have fully abolished from 1996. The house and land registration fee under deeds of will within three generations has been lowered to 8.0 per cent. The rate for outside the three generations has also been reduced to 20 per cent.

#### ***1.4.2 Land Tax***

Land revenue is the oldest tax in Nepal and before 1951 it was the major source of revenue of the government. In Nepal, the share of agricultural tax as land revenue is very low although agricultural sector provides more than 50 per cent of GDP. At present, land owners holding 1.5 bighas of Awal (best) land in Terai are subject to pay only Rs. 5.10 and in the hills land owners holding 20 ropanies of Awal land are subject to pay land tax of Rs. 5.0 only. In the coming year, arrangements has been made to determine the rate of land tax by local entities. The total revenue from land is decreasing year by year in Nepal because of the fragmentation of land holding and occupation of land by house and factories which is tax free. In 1975 Rs. 90.9 million was collected from land revenue which has declined to Rs. 61.0 million in 1994, a decline by 32.89 per cent during the 19 years. Similarly the share of land revenue on total tax revenue is also declining which was 10.8 per cent in 1975 and 0.4 per cent in 1994. The percentage share in GDP was 0.55 per cent in 1975 and is 0.03 per cent in 1994.

#### ***1.4.3 Non-Tax Revenue***

The main source of non-tax revenue are duties and fees, tourism fees, penalty fines and forfeiture, receipts from sales and rent of government property, services and goods, dividend, interest, royalty and sales of government property and donation and miscellaneous income, etc.

### **1.5 Salient Features of Tax Structure in Nepal**

#### ***1.5.1 Total Revenue as Percentage of GDP***

In Nepal, the total revenue as percentage of GDP is low compared with many Asian countries. Such ratio over the period of 20 years

(1975-1995) has increased from 6.09 per cent of GDP in 1975 to 10.25 per cent of GDP in 1994 and has remained at 7.95 per cent in 1995 (up to 9 months figure). In other years the figure has moved around 8 to 9 per cent of GDP. The figure shows that the authorities has to think on the collection of revenue.

### ***1.5.2 Tax and Non-Tax Revenue***

If one breaks total revenue between tax and non-tax, the share of tax revenue to total revenue has declined from 83.47 per cent in FY 1975 to 79.27 per cent in 1995 (up to nine months figure) whereas the share of non-tax revenue has gone up from 16.53 per cent in 1975 to 20.73 per cent in 1995. The share of tax revenue to GDP has increased from 5.08 per cent in 1975 to 8.05 per cent in 1994 and 6.30 per cent in 1995 (up to nine months figure) whereas the share of non-tax revenue to GDP has increased from 1.01 per cent in 1975, 2.20 per cent in 1994 and 65 per cent in 1995 (up to nine months).

### ***1.5.3 Direct and Indirect Taxes***

If one breaks the whole tax revenue between direct and indirect taxes one could observe that the share of indirect taxes on total tax revenue has increased from 78.08 per cent in 1975 to 81.43 per cent in 1994 and 82.65 per cent in 1995 (up to nine months) on the other hand the share of direct taxes on total revenue have declined from 21.92 per cent in 1975 to 18.57 per cent and 17.35 per cent in 1995 (up to nine months).

### ***1.5.4 Direct Taxes***

Among the direct taxes income tax from individuals income tax from public enterprises, land revenue and house and land registration are major source of income. They account for about 65.04 per cent of direct tax revenue in 1994 and about 12.08 per cent of total tax revenue in 1994 other major sources of direct tax includes interest tax, remuneration tax, income tax from private cooperate bodies, etc.

### ***1.5.5 Indirect Taxes***

Among the indirect taxes customs (import and exports) is the major sources of (25.33 per cent in 1975 to 32.85 per cent in 1995) total

tax revenue, followed by sales tax (22.63 per cent in 1975 to 32.19 per cent in 1995) and excise duties (14.22 per cent in 1975 to 7.74 per cent in 1995). The revenue from these sources alone account for 62.18 per cent of total tax revenue in 1975 and 72.78 per cent of total tax revenue in 1995. The revenue from these sources account for 79.64 per cent of indirect tax revenue in 1975 to 88.07 per cent in 1995. Other major sources of indirect tax revenue include contract tax, entertainment tax, hotel tax, etc.

### **1.5.6 Major Tax Groups**

The budget of 1996 has divided the whole Nepalese taxation income into four major heads. They include (i) commodity taxes on foreign trade (ii) internal commodity taxes on goods and services (iii) income tax and (iv) taxes on house land and other property. The first two are indirect taxes while the latter two are direct taxes. Their relative share in total taxation in 1995 has been estimated as 33.43 per cent, 45.91 per cent, 15.79 per cent, 4.87 per cent respectively. The share of indirect taxes on total tax revenue has been estimated as 79.73 per cent and the share of direct taxes on total revenue has been estimated as 20.67 per cent.

Going through the salient features of Nepalese tax system followings are some of the indicators which can describe the tax-structure in Nepal;

- Very low tax/GDP ratio
- Higher relative share of indirect taxes on total taxes
- Tax system largely based on international trade, on which customs and sales tax are the major sources of revenue
- Very low revenue from agriculture (land revenue 10.80 per cent of total tax revenue in 1975 and less than 1 per cent in 1994 and has been estimated further less in 1995), which contributes around 50 per cent of gross domestic product.
- Generous tax concession and tax incentives - base has been very narrow (export 0.5 per cent service charge, industry tax holiday, raw material import - very low, agriculture income tax - nil, dividend income tax - free).

## **II. Data and Information on Financial Asset**

### **2.1 Development of Financial Institutions in Nepal**

The modern banking system of Nepal started with the establishment of Nepal Bank Ltd. in 1937, as the first commercial bank of the country. It was a semi-government organisation (the government having the ownership of 51 per cent of the paid up capital and 49 per cent of the general public). Before the establishment of Nepal Rastra Bank (NRB), the Nepal Bank Ltd. had to perform the central banking activities apart from commercial functions. The central bank of Nepal, i.e. Nepal Rastra Bank was established only in 1956 under the Nepal Rastra Bank Act 1955. There were only 13 commercial banking branches of Nepal Bank Ltd. in the country, specially in the industrial areas, when Nepal Rastra Bank was established. So at the beginning of its establishment the NRB has to act not only the traditional central banking functions, but also to support for the establishment of commercial banks and financial institutions in the country and to protect and supervise the national banking and financial activities. Various financial institutions were established in the country under its patronage of NRB. In order to assist the private investment in the country, the Nepal Industrial Development Corporation (NIDC) was established in 1958. It is the single institution in the country to finance the medium and big enterprises in the private sector. The cooperative bank was established in 1963 with a purpose to provide institutional agricultural credit to the farmers. In 1964 a Land Reform Saving Corporation was established to manage the rural savings generated under the compulsory saving schemes of the Land Reform Programme. The Agricultural Development Bank (ADB) was established in 1968 and both of these institutions (Cooperative Banks, and Land Reform Saving Corporation) were merged with the ADB. The Bank provides short, medium and long term loans on prescribed conditions to individuals, cooperative societies and corporate bodies for the purpose of agricultural development. It also provides facilities to farmers for the use of fertilisers, machines, pumps, insecticides and other resources needed for such development.

The Provident Fund Corporation was established in 1962 under the Provident Fund Act of 1962. The resources of the fund consists of grants from the government deductions from the 10 per cent salary of government employees. The corporation invests its funds at government bonds and provides loans and advances to government employees.

The second commercial bank of the country, the Rastriya Baniyya Bank was established in July 23, 1966 under the special act legislated in 1965, after the three decades of the establishment of the first commercial bank. This is a fully state-owned commercial bank of the country and after the establishment of this bank the NRB has enabled gradually to devote more attention to important aspects of economic, monetary and fiscal developments.

In February 1968, the National Insurance Corporation (NIC) was established with the joint effort of HMG, Nepal Rastra Bank and Nepal Bank Ltd. It also contributes to a considerable degree in mobilising the savings and credit structure on the long-term basis.

The other two financial institutions established in the mid 1970's are Credit Guarantee Corporation (CGC) in October 1974 and Securities Exchange Centre (SEC) in August 1976. The Credit Guarantee Corporation guarantees loans extended by the commercial banks to priority sector (agriculture, cottage industries and services sector). Whereas the Securities Exchange Centre was established to develop the capital market in the country. It facilitates the market for the transactions in the shares and securities. With regards reform in the financial sector, the security exchange centre has been converted into the Nepal Stock Exchange Ltd. in 1994 in order to enable industrialist and investors direct access to capital. At the same time, a Security Exchange Board has been constituted for the development of a competitive capital market. It is because of the changed context that several private companies are planning to issue stocks and bonds to mobilise capital from the market.

The postal saving offices were set up in 1982 to promote the saving habit of the rural population who have no easy access to ordinary banking facilities. The offices are spread all over the country.

His Majesty's Government of Nepal restricted the entry of new banks and financial institutions for many years in order to protect the domestic banks. But, as part of economic liberalisation measures, HMG initiated a number of financial sector reform measures since the mid-1980's, with a view to allow market forces to play key role in the economy, enhance the private sector participation and improve and increase the financial instruments and develop capital market. Financial liberalisation measures include the relaxation of entry barriers of private sector banks, deregulation of interest rates, restructuring of the

public sector commercial banks, introduction of the auction system of government securities and entry of finance companies, cooperatives and insurance companies in the private sector.

In 1984, the establishment of Nepal Arab Bank Ltd. the first joint venture bank with foreign collaboration is the first step towards the financial liberalisation in Nepal. The bank was established to promote competition and efficiency in the banking system and it was expected that the bank would invite the foreign technology in the banking field. This bank was soon followed by Nepal Indosuez Bank Ltd. and Nepal Grindlays Bank Ltd. in 1986 and 1987 respectively. In 1984 Agricultural Development Bank was also permitted to mobilise savings from the public and do some of the commercial banking activities. Nepalese financial market invited more banks on foreign collaboration namely Himalayan Bank Ltd., Nepal State Bank of India Ltd., Nepal Bangladesh Bank Ltd. Everest Bank Ltd., and Bank of Kathmandu. The head office of all these banks are situated in Kathmandu and Nepal Rastra Bank as a central bank has provided some facilities to the banks that have headquarters outside the Kathmandu Valley.

Citizen's Investment Fund was established in 1991 for the mobilisation of domestic savings. At the beginning provision was made for compulsory deposit of 5 per cent of the salary of all the civil servants, employees in the public enterprises and other agencies in the account of the Citizen's Investment Funds maintained in NRB. Later it was made voluntary and such savings being exempted from income tax and earning an annual interest rate of 15 per cent. It was felt that enhanced mobilisation of savings, apart from increasing investment and domestic saving would also bring about positive impact on price situation by reducing the excess liquidity in the economy and demand pressure on consumer goods. Now the Fund was established as a separated institutions and it sales and purchase the government securities.

As a large number of people in Nepal who are living below poverty level cannot borrow from traditional banking institutions and have to depend on informal sectors. Because the commercial banks are profit-oriented organisation and cannot fulfill all the credit necessities of these sectors. So in order to provide credit for increasing income and employment opportunities of the poor and help reduce the level of poverty among the rural population in general and women in

particular. The two Grameen Bikash Banks were established in 1992 along the lines of Grameen Bank of Bangladesh. The banks have adopted the Grameen bank financial system of Bangladesh which has been very effective there. In Nepal now there are four Rural Development Banks in eastern, far western, western and Mid-western development region and in 1996, it has been proposed to establish a rural development bank in mid-development region.

The need for developing banks and financial institutions with new financial innovations and instruments becomes apparent with the development of the economy. From the mid-1980's, Nepal has adopted the policy of economic liberalisation and this was given more important role to the private sector. Under the financial liberalisation policy, the government has given permission for the establishment of new commercial banks and finance companies in the country. In Nepal the first Finance company established as per the Finance Company Act 1985 was Nepal Housing Development Finance Company in 1991. Finance companies collect resources and expand loans and advances to various sectors. The principal sources of funds of these companies are time deposit collection, and issuance of debentures. Nepal Rastra Bank has approved the principal lending areas of finance companies as hire purchase, housing finance, investment in government securities and bonds. Up to May 1, 1996, the number of finance companies established in the country has reached 36 and few more are in the pipe line.

The first cooperative established in Nepal was Navajivan Sahakari Sanstha Limited in 1992 at the Far Western Development Region Dhangadhi. The number of cooperatives established in Nepal has reached 11 up to May 1, 1996. Similarly, 18 non-governmental organisations have been established, the first of them being the Swabalamvan Vikas Kendra established in 1993 at Siraha Saptari at the Eastern Development Region of Nepal.

The number of commercial banks and finance companies are listed in Appendix 8.1.

Under the public debt act 1961, His Majesty's Government of Nepal started issuing Treasury Bills since 1962. In 1964 Land Compensation Bond, Forest Compensation Bond, Development Bonds were issued, prize bonds was issued in 1967, special bonds in 1971 and National Savings Certificates in 1984.

Until 1988 Treasury Bills (TB) used to be of 91 days with fixed interest rates of 5 per cent and in this year maturity period of TB was fixed as 91 days and 182 days. In order to introduce greater flexibility in the interest rate structure and strengthen monetary and government domestic debt management since 1989 NRB has initiated regular auctions of TB's (both 91 days and 182 days) and development Bonds (DB) and NRB has published a timetable for auctioning of these two instruments. With the introduction of these measures, interest rates on TB and DB have been determined by market and has pushed the interest rates substantially (presently the rate of TB is 12.76 per cent). The sales of government securities is now being conducted in the context of a comprehensive short-term monetary programming framework. Besides this various Financial Institutions & Finance Companies have floated their shares, generally in Nepal 25 per cent of the shares is being floated for general public. According to the Legal provision such institutions should list themselves in the Securities Exchange Centre (SEC) if they want to float their shares to the public because SEC is the only recognised stock exchange agency in the country. The Citizen Investment Fund also acts as a broker for secondary market transaction and the fund charges a 0.5 per cent commission only to the seller.

## **2.2 Taxation of Financial Assets**

Every country has its own type of tax treatment to the various financial assets depending upon the individual country's economic condition and historical background. Interest, dividends and capital gains are the main taxable capital incomes derived from the financial assets. The major taxable financial assets of Nepal are as follows:

### **2.2.1 Interest Income**

In Nepal interest incomes from saving deposits are included in the global incomes, whereas the interest incomes from fixed deposits are separately taxed. Such separate taxation on fixed deposits was started in 1978. In 1978 interest income less than Rs. 1000 was exempted and a progressive rate of 5, 10, 15 and 20 per cent was levied at the interest income above Rs. 3250, Rs. 6500, Rs. 13000 and above Rs. 13000 respectively. Since 1987/88 the slab system was revised and the initial Rs. 5000 was exempted. Interest income above this limit was required to pay tax in advance and a progressive tax rate of 5, 10, 15 and 20 per cent was levied at the above limit up to Rs. 15000, 30000, Rs. 50000

and above Rs. 50000. This has perpetuated the practice of splitting deposits among different banks in order to take advantage of the exemption limit. To discourage such practices, all interest incomes from bank deposits have been taxed at source at 5 per cent from 1994. The income from this tax is increasing every year however it has not been able to generate incentive as it was expected to be. In 1978 it produced only Rs. 0.10 million which reached to as Rs. 96.70 million in 1994 and Rs. 67.20 million up to nine months of 1995. However, the percentage share in GDP is negligible. It was 0.05 per cent in 1981 and the same 0.05 per cent in 1994 and 0.03 per cent up to 9 months of 1995.

### **2.2.2 Dividends**

In Nepal, before mid-1980's, most of the financial institutions were established as a fully government owned or semi-government owned institutions. Very little dividend from the financial institutions used to transfer at the public hand. In 1989 and 1990, only 15 per cent income from the dividend was treated as income tax. So in order to encourage capital market development from 1991 tax on dividend income was withdrawn. This has encouraged savers to invest in the securities.

### **2.2.3 Capital Gains**

The capital gains from financial assets are completely tax free in Nepal. However, gains on physical capital is taxed in directly as a registration fee in times of ownership transfer.

### **2.2.4 Government Bonds**

In Nepal, at present interest income earned from the investment in government bonds and national savings certificates is tax free. But because of the low interest rates of these bonds, most of the government bonds are in the ownership of the banking sector. So the exemption of interest on government bonds from income tax has been meaningless. So in order to increase the private sector's investment in the government bonds in 1990, the government issued saving certificates with interest rates from 15.0 per cent to 15.50 per cent at an income tax rate of 5 per cent. But it also could not attract the private sector investment. Since 1991, the government bond was made tax free.

### **2.2.5 Others**

The other financial assets available in Nepal are National Saving Certificates issued by Nepal Rastra Bank, Employees's Provident Fund amount provided by Provident Fund Corporation, insurance amount provided by National Insurance Corporation, etc. The interest income from National Saving Certificates is tax free in Nepal; at present there are two types of National Saving Certificates with the rate of interest of 13 per cent and 11 per cent. Similarly, the Provident Fund Corporation collects savings from the government employees deducting compulsorily 10 per cent salary of the employees and also the same percentage of contribution made by the employees. This amount when the employees withdraw after the expiry of his service is tax free. Similarly, National Insurance Corporation collects the saving from various insurance measures. The withdrawal of the insured amount after the expiry of the insurance period from this institution is also tax free.

## **III. Impact of Taxation of Financial Assets**

### **3.1 Savings Behaviour**

Since savings are the residual from income and consumption, Nepal has a low level of savings as the income level is low and the relative consumption is quite high. As such, some of the empirical studies have found that most of the private sector has dissavings. In order to increase savings, the identification of those factors which determine the savings may help to choose the policy options.

Among the various factors, income and interest rates are extremely important factors. But in a less developed country like Nepal, neither the income level is satisfactory nor the interest rates especially in financial assets, are positive. It is thus one can easily argue that in Nepal the ability to save and incentive to save are both in low status. Besides these two factors, theoretically savings depends on inflation, wealth, level of foreign savings, income distribution, saving in situations and urbanisation. The financial development like saving institutions and urbanisation may explain savings behaviour in the way of opportunities to save.

The current income is the most important explanatory variable of savings. According to Keynes' absolute income hypothesis savings is

Table 8.9

## TAXATION OF FINANCIAL ASSETS IN NEPAL

Financial Assets	Percent of Tax	Last Date of Amendment	Remarks
Time Deposits	5 %	1994	Deduction at source
Capital Gain	No	-	-
Dividend	No	1991	-
Government Bonds	No	1991	-
National Savings Certificates	5 %	-	Few certificates only which has the interest rate of 15.50 per cent (issued at 1990-96)

a stable, linear function of current income and the marginal propensity to save is constant over time. Similarly, there are other hypothesis which focus on different income method like 'permanent income' (Friedman, 1957) and life cycle hypothesis of Modigliani, Brumberg and Ando under which the individuals adopt a planning for their life-time consumption and so on.

Due to data constraints this paper attempts to use a simple behavioral function fitted to gross domestic savings for the period 1975 - 1995. As such, the following savings function can be stated;

$$S/y = f(Y, r, i, M2/y, x/y, f/y, b)$$

$S/y$  = Ratio of gross domestic saving to GDP  
 $Y$  = GDP per capita  
 $r$  = Real interest rate proxied by one year deposit minus inflation  
 $i$  = Inflation rate  
 $M2/y$  = Ratio of broad money to GDP  
 $x/y$  = Ratio of export to GDP  
 $f/y$  = Ratio of foreign saving (current account balances) to GDP  
 $b$  = Number of bank branches

However, with the limited number of observation, the final selection of the regression results will be made on the basis of the significant level of the selected variables as well as the good fit of the function.

Similarly, the study also gives attention to the tax-elasticity and buoyancy in total revenue including the major items like import duties, tax on consumption and income tax for the period 1975-94 (see for detail methodology, Adhikary, 1995).

### **3.2 Estimated Results**

The regression results are presented in the following Table 8.10.

**Table 8.10**

**REGRESSION RESULTS**

$$S/y = a_0 + a_1 \text{ PGDP} + a_2 r + a_3 i + a_4 xy + u$$

a0	a1	a2	a3	a4
82.16985	-0.377723	-0.67155	-0.75339	62.30951
(-17.0390)***	(-1.7957)*	(-1.8586)*	(-2.1102)**	(2.5708)**
R <sup>2</sup> /R <sup>2</sup> = .51/0   DW = 1.9104				
F - Stat = 3.9314 (0.0223)				

- \*\*\* Significant at the 1 per cent level.
- \*\* Significant at the 5 per cent level.
- \* Significant at the 10 per cent level.

A sequential approach of all specified variables was used while conducting the regression equation. Finally, among all not the best fitted but comparatively better results were selected. There is a limitation on the results that even the time series data are not tested for their stationarity. The per capita GDP, real interest and inflation are in the annual change percentage form whereas the gross domestic savings (s/y) and exports (x/y) are taken as a ratio in percentage of GDP.

According to the results, the savings is explained sufficiently by the selected variables. Surprisingly, the per capita GDP shows a significant negative relationship with the saving. One can easily argue that the level of income is itself very low and the concept of dissavings is more applicable in Nepalese consumption pattern. The positive relationship between income and savings may be detected if one can segregate the higher income group. This is also a cause that most of the people are using their savings in the non-productive real assets like land and

building. Likewise, the real interest rate and inflation both show a negative relationship with the savings. The real interest rate is normally negative during the study period implying that such interest rate could not create incentive for savings. Similarly, the higher inflation makes the people more difficult to save. The export as a ratio of GDP, though it bears a component effect of GDP, has explained savings significantly with positive sign. The overall predicting power of the model is satisfactory since the F-value is significant. And also one cannot doubt for the serial correlation since the DW is nearly within the rule of thumb, however, the  $R^2$  and  $R^2$  is low showing a lesser degree of explanatory power of the selected variables.

### **3.3 Elasticity and Buoyancy of Major Taxes**

Since the elasticity shows the scope of revenue receipts through automatic response or inbuilt flexibility of revenue whereas the buoyancy shows a change in revenue receipts with discretionary measures together with a change in national income.

According to the estimated results, the elasticity of tax on consumption is higher (0.73) compared to other selected tax-headings, however, elasticity coefficient is highly significant in each case. It is obvious that all the selected taxes i.e. import duties, tax on consumption, income tax, and the total revenue show a lesser degree of progressivity in the Nepalese tax structure.

The buoyancy or the sensitivity of all the selected tax-items with respect to national income is greater than unity. The buoyancy coefficient on income tax is higher (1.14) compared to other tax items. The buoyancy in all cases is higher than the elasticity.

In sum, the automatic source of revenue is very low and there is a need for a discretionary policy efforts for a higher rate of revenue mobilisation by strengthening revenue administration and broadening the tax-base.

## **IV. Conclusions and Policy Recommendations**

1. In Nepal, fiscal and public resource management has remained in the initial phase although the government has good performance in economic liberalisation and the promotion of private sector

development. Expenditures are over extended and tax effort is low. For example, from 1975-95 total expenditure of the government rose by an average of 18.8 per cent a year compared at 16.4 per cent of total revenue. Total revenues were equivalent to 10.3 per cent of GDP in 1994 while total expenditure was equivalent to 17.6 per cent of GDP in FY 1994. The low revenue effort and rising expenditures have eroded public savings. The growing dependance on external aid as a major source of development financing reflects the inability of the government to raise local resources and the constraints on local resources make it difficult to generate the complementary local funds to use the aid-effectively. Regular expenditures have risen by 3.3 per cent of GDP in 1975 to 6.4 per cent of GDP in 1994 while the development expenditure rose from 5.8 per cent of GDP in 1975 to 11.1 per cent in 1994.

Fiscal performance of Nepal has remained difficult for the past many years. The budgetary deficit rose from 1.3 per cent of GDP in 1975 to 6.1 per cent of GDP in 1994. Revenue rose from 6.1 per cent of GDP in 1975 to 10.3 per cent of GDP in 1994.

2. Like most developing countries, Nepal's tax system is focused on indirect taxation, which accounts for over 80.0 per cent of tax revenue. The share of indirect taxes on total revenue was 78.1 per cent in 1975 and it went up to 81.4 per cent in 1994 and 82.7 per cent up to the first nine month's figure of 1995. The most important source of indirect taxation is international trade of goods and services. The base of sales tax is narrow and the main source of income from sales tax is cigarettes, bidi and liquor production.
3. Land revenue should have been the major direct tax of Nepal, but presently a person holding 1.5 bigha of Awal land in Terai region has to pay only Rs. 5.10 and in the hills land owners holding 20 ropanies of Awal land have to pay only Rs. 5 as land tax. Similarly, a rebate of 25 per cent and 10 per cent is made on the existing rate of land tax according to the land holdings.
4. Many sources of income are excluded from the income tax net, through tax holidays, exemptions on export income and special tax incentives.

Table 8.11

**ELASTICITY OF MAJOR TAXES WITH RESPECT TO GDP 1/  
IN NEPAL**

1975-94							
Estimating Equations	Estimated Intercept a	Estimated Elasticity b	p	$\bar{R}^2$	F. Statistic	D.W.	
1. Import Duties $\ln I D_t C C \ln G D P_t AR(1)$	2.17 (1.76)	0.51* (4.60)	0.64	0.91	88.63	1.56	
2. Tax on Consumption $\ln S E T_t C C \ln G D P_t AR(1)$	-0.18 (-0.32)	0.73* (13.86)	0.61	0.99	648.53	1.36	
3. Income Tax $\ln I T_t C C \ln G D P_t AR(1)$	2.44 (3.92)	0.39* (6.92)	0.22	0.81	39.64	1.37	
4. Total Revenue $\ln T T_t C C \ln G D P_t AR(1)$	1.96 (3.34)	0.65* (12.24)	0.68	0.99	688.82	1.43	

**BUOYANCY OF MAJOR TAXES WITH RESPECT TO GDP 1/  
IN NEPAL**

1975-94							
Estimating Equations	Estimated Intercept a	Estimated Elasticity b	p	$\bar{R}^2$	F. Statistic	D.W.	
1. Import Duties $\ln I D_t C \ln G D P_t AR(1)$	-4.36 (-2.91)	1.05* (7.89)	0.67	0.98	390.72	1.75	
2. Tax on Consumption $\ln S E T_t C \ln G D P_t AR(1)$	-4.27 (-3.84)	1.06* (10.98)	0.73	0.99	1021.78	2.29	
3. Income Tax $\ln I T_t C \ln G D P_t AR(1)$	-6.53 (-6.98)	1.14* (13.39)	0.33	0.96	212.54	1.15	
4. Total Revenue $\ln T T_t C \ln G D P_t AR(1)$	-3.51 (-9.70)	1.10* (33.76)	0.51	0.99	2672.05	2.21	

\* Significant at 1 per cent level.

1/ GDP at producers price.

Source: Adhikary, R.P., Tax Elasticity and Buoyancy in Nepal, Nepal Rastra Bank, Economic Review, November, 1995, No. 8, pp. 17-18.

5. The long and open border with India has created the problem of smuggling in cases when Nepal's tax system creates discrepancies relative to border prices.

#### **4.1 Recommendations**

The key elements of recommendations now under consideration by the government and some of which were adopted in FY 1995 and 1996 budget are as follows:

1. Move from the current multi-rate sales tax to a limited value - added tax (VAT) in order to simplify the basic tax on consumption and improve tax compliance.
2. To broaden tax rate for internal resource mobilisation and make tax structures more sustainable in the long run.
3. To reduce tax rates in order to develop a tendency of paying tax on voluntary basis and also in view of social justice and international competition.
4. To bring efficiency in local resource mobilisation by bringing about participation of local entities in revenue collection.
5. To make tax administration strong, fair, transparent, capable, simple and efficient.
6. If the level of savings be upgraded, at least in the short term the interest rate should be positive, and inflation should be controlled. And the activities should be strengthen for the better growth rate.

To institutionalise reform process in total revenue system, it has been proposed to form a permanent 'Revenue Board' in 1996. This board will play a significant role in searching a new taxation system, developing infrastructure required for its implementation, regular monitoring and bringing necessary reforms as well as adjustments in existing taxation and non-taxation system and determining revenue policies.

In view of the need to incorporate amendments made by the world customs organisation, based on harmonised classification system of international goods, prevailing rates of customs has been proposed

to review after extensive study and analysis. Customs evaluation procedure have been proposed to be made realistic and simple under the procedural improvements of customs.

In accordance with the purpose of capturing service industries to broaden the sales tax base, it has to be improved the existing sales tax system on advertisement, colour lab, auto-service and courier.

In order to widen the base of income tax, house and land tax as well as house and land rent tax, the work of preparing tax potential index has been started. Programme to bring tax avoiders into the tax net has been proposed in the form of campaign. From this, it is expected that a minimum of 50 thousands will be added in the number of direct tax payers.

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**BANKS, FINANCE COMPANIES, CO-OPERATIVES &  
NGO's IN NEPAL**

**(As of May 1, 1996)**

<b>Commercial Banks</b>	<b>Head Office</b>
1. Nepal Bank Limited	Kathmandu
2. Rastriya Banijya Bank	Kathmandu
3. Nepal Arab Bank Limited	Kathmandu
4. Nepal Indosuez Bank Limited	Kathmandu
5. Nepal Grindlays Bank Limited	Kathmandu
6. Himalayan Bank Limited	Kathmandu
7. Nepal State Bank of India Ltd.	Kathmandu
8. Nepal Bangladesh Bank Ltd.	Kathmandu
9. Everest Bank Limited	Kathmandu
10. Bank of Kathmandu	Kathmandu
<b>Development Banks</b>	
1. Agricultural Development Bank	Kathmandu
2. Nepal Industrial Dev. Corporation	Kathmandu
<b>Rural Development Banks</b>	
1. Eastern Rural Development Bank	Morang
2. Far-Western Rural Development Bank	Kailali
3. Western Rural Development Bank	Rupandehi
4. Mid-Western Rural Development Bank	Banke
<b>Co-operatives</b>	
1. Navajivan Sahakari Sanstha Limited	Kailali
2. Navakshitij Sahakari Sanstha Ltd.	Kathmandu
3. Sagun Sahakari Sanstha Limited	Kathmandu
4. Nepal Sahakari Bittiya Sanstha Ltd.	Kathmandu
5. Makalu Yatayat Sahakari Sanstha Ltd.	Morang
6. The Sahara Loan, Sav. & Inv. Co-ope. Soc. Ltd.	Sarlahi
7. Vindhyavasini Bachat Kosh	Kavre
8. Bahumukhi Sahakari Sanstha Ltd.	Jhapa
9. Mahila Sahakari Sanstha Ltd.	Kathmandu
10. Bahuudesiya Bachat Tatha Rin Sarakari Sanstha Limited	Jhapa
11. Rajshree Savings and Investment Co-ope. Societies Limited	Sarlahi

Commercial Banks	Head Office
<b>Non-Governmental Organisations</b>	
1. Swabalamvan Vikas Kendra	Siraha, Saptari, Udayapur
2. Nirdhan	Rupandehi
3. Jwalamukhi	Chitwan
4. Apurbaba Siraha Vikas Samaj	Siraha
5. Arthik Vikas Parishad	Kathmandu
6. Nepal Digo Samudayik Vikas Tatha Anusandhan Kendra	Lalitpur
7. Gramin Pratishthan Nepal	Kathmandu
8. Arthik Vikas Samudaya Nepal	Morang
9. Pichhadieko Janasamudaya Anusandhan Kendra	Kathmandu
10. Dhaulagiri Yuba Club	Chitwan
11. Gramin Vikas Sachetan Samaj	Parbat
12. Gramin Vikas Ayojana	Surkhet
13. Diprox-Nepal Ayojana	Kathmandu
14. Santi Jana Adarsha Sama Club	Kavre
15. Nari Vikas Sangh	Morang
16. Grameen Uthan-Nepal	Kathmandu
17. Nepal Grameen Puna Nirman Sanstha	Kathmandu
18. Arthik Vikas Prabardhan Kosh	Terathum Makawanpur & Bhaktapur
1. Postal Savings Banks - Organised by Postal Services Centre (Savings Deposit only)	
<b>Finance Companies</b>	
1. Nepal Housing Dev. Fin. Co. Ltd.	Kathmandu
2. Nepal Finance & Saving Co. Ltd.	Kathmandu
3. NIDC Capital Markets Ltd.	Kathmandu
4. National Finance Co. Ltd.	Kathmandu
5. Annapurna Finance Co. Ltd.	Pokhara
6. Nepal Share Markets Ltd.	Kathmandu
7. Peoples Finance Ltd.	Kathmandu
8. Himalaya Finance & Saving Co. Ltd.	Kathmandu
9. United Finance Co. Ltd.	Kathmandu
10. Union Finance Co. Ltd.	Kathmandu
11. Himalayan Securities & Finance Co. Ltd.	Kathmandu
12. Mercantile Finance C. Ltd.	Birgunj
13. Kathmandu Finance Ltd.	Kathmandu

Commercial Banks	Head Office
14. Invest Finance Co. Ltd.	Birgunj
15. Narayani Finance Co. Ltd.	Chitwan
16. City Finance Co. Ltd.	Kathmandu
17. Nepal Housing & Merchant Finance Ltd.	Kathmandu
18. Pashchimanchal Finance Co. Ltd.	Rupandehi
19. Universal Finance & Capital Markets Ltd.	Kathmandu
20. Samjhana Finance Co. Ltd.	Kavre
21. Goodwill Fin. & Inv. Co. (Nepal) Ltd.	Kathmandu
22. Shree Investment & Fin. Co. Ltd.	Kathmandu
23. Siddhartha Finance Ltd.	Rupandehi
24. Lumbini Finance & Leasing Co. Ltd.	Kathmandu
25. Yeti Finance Ltd.	Makawanpur
26. Standard Finance Co. Ltd.	Kathmandu
27. S. Finance Co. Ltd.	Kathmandu
28. International Leasing & Finance Co. Ltd.	Kathmandu
29. Mahalaxmi Finance Ltd.	Birgunj
30. Lalitpur Finance Co. Ltd.	Lalitpur
31. Nepal Merchant Finance Ltd.	Kathmandu
32. Bhajuratna Finance & Saving Co. Ltd.	Kathmandu
33. General Finance Ltd.	Kathmandu
34. N.B. Finance and Leasing Fin. Ltd.	Kathmandu
35. Elpic Everest Finance Ltd.	Kathmandu
36. Alpic Finance Ltd.	Kathmandu
Commercial Bank Branches - 448	
Agricultural Development Bank Branches - 18 are doing commercial banking activities.	

## OWNERSHIP PATTERN OF GOVERNMENT BONDS AND TREASURY BILLS

(In Million Rs.)

Year	Treasury Bills	% Change	Development Bonds	% Change	National Saving Bonds	% Change	Forest Compen. Bonds	Special Bonds	% Change
1975	50.00	-	327.50	-	NA	NA	5.50	221.80	-
1976	150.00	200.00	370.00	12.98	NA	NA	5.50	217.10	-2.12
1977	350.00	133.33	450.00	21.62	NA	NA	5.50	208.30	-4.05
1978	490.00	40.00	530.00	17.78	NA	NA	5.50	199.10	-4.42
1979	590.00	20.41	600.00	13.21	NA	NA	5.60	199.60	0.25
1980	670.00	13.56	650.00	8.33	NA	NA	5.50	177.30	-11.17
1981	420.00	-37.31	850.00	30.77	NA	NA	5.50	168.30	-5.08
1982	620.00	47.62	1100.00	29.41	NA	NA	5.50	174.50	3.68
1983	1000.00	61.29	1670.00	51.82	NA	NA	5.50	202.60	16.10
1984	1830.00	83.00	1810.00	8.38	500.00	NA	NA	197.10	-2.71
1985	2830.00	54.64	2010.00	11.05	1000.00	100.00	NA	191.60	-2.79
1986	3080.00	8.83	2290.00	13.93	1500.00	50.00	NA	320.20	67.12
1987	3440.00	11.69	2990.00	30.57	1940.00	29.33	NA	627.40	95.94
1988	4090.00	18.90	4651.00	55.58	2196.50	13.22	NA	697.80	11.22
1989	1171.00	-71.37	5088.60	9.39	2196.50	0.00	NA	4431.80	535.11
1990	1821.00	55.51	5388.60	5.90	2896.50	31.87	NA	4567.00	3.05
1991	2351.00	29.10	5482.30	1.74	3646.50	25.89	NA	9376.00	105.30
1992	3483.00	48.16	5132.20	-6.39	4546.30	24.68	NA	10073.00	7.43
1993	4403.20	26.41	5132.20	0.00	4901.50	7.81	NA	11019.10	9.39
1994	5216.30	18.47	4732.20	-7.79	5691.50	16.12	NA	13517.70	22.68
*1995	5216.30	0.00	4362.20	-7.82	5806.40	2.02	NA	15031.80	11.20
Average		40.12		15.81		30.09			45.06

\* Up to the Third Quarter.

Source: Quarterly Economic Bulletin, Mid-April 1995, Nepal Rastra Bank.

## MONEY SUPPLY &amp; PERCENTAGE SHARE

(Rs in Million)

Year	(M1)	% Change	(M2)	% Change	Fix & Sav	% Change
1975	1337.70	-	2064.40	-	726.70	-
1976	1452.50	8.58	2524.00	22.26	1071.50	47.45
1977	1852.90	27.57	3223.00	27.69	1370.10	27.87
1978	2060.60	11.21	3772.10	17.04	1711.50	24.92
1979	2504.90	21.56	4511.40	19.60	2006.50	17.24
1980	2830.40	12.99	5285.30	17.15	2454.90	22.35
1981	3207.80	13.33	6307.70	19.34	3099.90	26.27
1982	3611.50	12.58	7458.00	18.24	3846.50	24.08
1983	4348.90	20.42	9222.40	23.66	4873.50	26.70
1984	4931.50	13.40	10455.20	13.37	5523.70	13.34
1985	5480.00	11.12	12296.60	17.61	6816.60	23.41
1986	7029.30	28.27	15159.00	23.28	8129.70	19.26
1987	8120.20	15.52	17498.20	15.43	9378.00	15.35
1988	9596.60	18.18	21422.60	22.43	11826.00	26.10
1989	11775.40	22.70	26605.10	24.19	14829.70	25.40
1990	14223.00	20.79	31552.40	18.60	17329.40	16.86
1991	16283.60	14.49	37712.50	19.52	21428.90	23.66
1992	19457.70	19.49	45670.60	21.10	26212.90	22.32
1993	23833.00	22.49	58322.50	27.70	34489.50	31.57
1994	28503.10	19.60	69769.80	19.63	41266.70	19.65
*1995	32337.20	13.45	80095.10	14.80	47757.90	15.73
Average		18.30		21.19		24.71

\* Up to nine months figure.

Source: Economic Survey 1994/95, His Majesty's Government, Ministry of Finance.

## NATIONAL ACCOUNT SUMMARY

(Rs. in Million)

Year	Nominal GDP	% Change	Real GDP	% Change	Total Consump	% Change	Private Consump	% Change	Public Consump	% Change	Gross Dom. Saving	% Change	Total Investment	% Change
1975	16571	-	16571	-	14909	-	13652	-	1257	-	1662	-	2402	-
1976	17394	4.97	17300	4.40	15354	2.98	14060	2.94	1294	2.94	2040	22.74	2632	9.58
1977	17280	-0.66	17822	3.02	14949	-2.64	13689	-2.63	1260	-2.63	2332	14.31	2768	5.17
1978	19732	14.19	18607	4.40	17192	15.00	15721	14.84	1471	16.75	2540	8.92	3507	26.70
1979	22215	12.58	19048	2.37	19630	14.18	17741	12.85	1889	28.42	2585	1.77	3514	0.20
1980	23351	5.11	18606	-2.32	20760	5.76	19195	8.20	1565	-17.15	2591	0.23	4270	21.51
1981	27307	16.94	20158	8.34	24333	17.21	22411	16.75	1922	22.81	2974	14.78	4808	12.60
1982	30988	13.48	20920	3.78	27910	14.70	25272	12.77	2638	37.25	3088	3.83	5314	10.52
1983	33761	8.95	20297	-2.98	30874	10.82	27458	8.65	3416	29.49	2887	-6.51	6628	24.73
1984	39390	16.87	22262	9.68	35504	15.00	31860	16.03	3644	6.67	3886	34.60	7351	10.91
1985	44441	12.82	44441	99.63	40348	13.64	35977	12.92	4371	19.95	6239	60.55	10184	38.54
1986	53215	19.74	46512	4.66	49847	23.54	44782	24.47	5065	15.88	5887	-5.64	10599	4.08
1987	61140	14.89	47427	1.97	56543	13.43	50746	13.32	5797	14.45	7321	24.36	12898	21.69
1988	73170	19.68	50762	7.03	69302	22.57	62407	22.98	6895	18.94	7604	3.87	15237	18.13
1989	85830	17.30	53518	5.43	79119	14.17	70172	12.44	8947	29.76	10150	33.48	19415	27.42
1990	99702	16.16	56151	4.92	95273	20.42	86314	23.00	8959	0.13	8143	-19.77	19076	-1.75
1991	116128	16.48	59768	6.44	108856	14.26	97771	13.27	11085	23.73	11515	41.41	25074	31.44
1992	144931	24.80	62531	4.62	133278	22.44	121370	24.14	11908	7.42	16207	40.75	31619	26.10
1993	165262	14.03	64596	3.29	151564	13.72	136664	12.60	14900	25.13	19822	22.31	36303	14.81
1994	190959	15.55	69282	7.27	174618	15.21	156489	14.51	18129	21.67	24798	25.10	40951	12.80
1995	210532	10.25	70874	2.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average		14.42		9.38		14.79		14.67		16.76		17.84		17.51

Source: Economic Survey 1994/95, His Majesty's Government, Ministry of Finance.

## SHARE OF MAJOR DIRECT TAXES ON TAX REVENUE

Year	Tax Rev.	Income Tax	Land Revenue	Income Tax from PEs	Tax on Interest	House & Land Reg.	% Share
		% Share	% Share	% Share	% Share	% Share	% Share
1975	841.70	NA	90.90	47.00	5.58	NA	36.00
1976	911.20	NA	94.80	87.20	9.57	NA	39.60
1977	1100.10	NA	97.90	133.30	12.12	NA	42.70
1978	1243.90	85.00	87.00	34.60	2.78	0.01	54.10
1979	1476.80	61.40	4.16	27.00	1.83	0.07	55.70
1980	1528.80	55.70	3.64	28.10	1.84	0.01	65.00
1981	2035.70	91.40	4.49	41.00	2.01	0.01	77.80
1982	2211.30	143.70	6.50	37.40	1.69	0.26	88.30
1983	2421.10	173.90	7.18	53.40	2.21	0.46	104.80
1984	2737.00	212.50	7.76	63.70	2.33	0.29	135.20
1985	3151.20	196.00	6.22	93.10	2.95	0.20	141.70
1986	3659.30	234.50	6.41	110.80	3.03	0.28	170.10
1987	4372.40	284.30	6.50	120.90	2.77	0.22	211.60
1988	5752.80	348.60	6.06	193.20	3.36	0.30	286.20
1989	6287.20	597.40	9.50	216.90	3.45	0.29	320.60
1990	7283.90	625.00	8.58	240.90	3.31	0.18	377.10
1991	8176.30	531.20	6.50	162.20	1.98	0.46	456.60
1992	9875.60	617.90	6.26	171.10	1.73	0.20	571.30
1993	11662.50	800.70	6.87	255.30	2.19	0.63	685.50
1994	15371.40	1184.80	7.71	534.10	3.47	0.63	77.20
1995 *	13271.80	491.20	3.70	450.90	3.40	0.51	592.30

\* Nine Months Figure.

Source: Economic Survey 1994/95, His Majesty's Government, Ministry of Finance.

**SHARE OF DIRECT AND INDIRECT TAXES  
ON TOTAL TAX REVENUE**

Year	Tax Revenue	Direct Tax	% Share	Indirect Tax	% Share
1975	841.70	184.50	21.92	657.20	78.08
1976	911.20	236.00	25.90	675.20	74.10
1977	1100.10	295.70	26.88	804.40	73.12
1978	1243.90	306.20	24.62	937.70	75.38
1979	1476.80	253.10	17.14	1223.70	82.86
1980	1528.80	253.80	16.60	1275.00	83.40
1981	2035.70	353.20	17.35	1682.50	82.65
1982	2210.60	379.20	17.15	1831.40	82.85
1983	2421.10	445.10	18.38	1976.00	81.62
1984	2737.00	541.80	19.80	2195.20	80.20
1985	3151.20	559.70	17.76	2591.50	82.24
1986	3659.30	661.80	18.09	2997.50	81.91
1987	4372.40	768.70	17.58	3603.70	82.42
1988	5752.80	1010.20	17.56	4742.60	82.44
1989	6287.20	1331.40	21.18	4955.80	78.82
1990	7283.90	1435.10	19.70	5848.80	80.30
1991	8177.30	1369.70	16.75	6807.60	83.25
1992	9875.60	1595.20	16.15	8280.40	83.85
1993	11662.50	2036.20	17.46	9626.30	82.54
1994	15371.40	2855.20	18.57	12516.20	81.43
1995	13271.80	2302.60	17.35	10969.20	82.65

Source: Economic Survey 1994/95, His Majesty's Government,  
Ministry of Finance.

## Chapter 9

### TAXATION OF FINANCIAL ASSETS IN THE PHILIPPINES

by

*Illuminada T. Sicat*

#### I. Tax System in the Philippines

The principal taxation law of the Philippines is contained in the National Internal Revenue Code (NIRC). On July 31, 1986, Executive Order (EO) No. 37 restructured the tax system contained in the NIRC. The EO reformed the current taxation system that exists in the country today. One of the major tax reform measure contained in the EO was the shift from schedular to a more global approach in taxing income from compensation, business, trade and exercise of profession. The shift to global method was done to make the tax structure more equitable and progressive, revenue-productive, and conducive to efficient resources allocation.

#### 1.1 System of Taxation

##### 1.1.1 Direct Taxes

**Individual Income Tax.** Individual incomes derived from trade or business in the Philippines are taxed based on graduated income at 0 to 35 per cent while passive incomes<sup>1</sup> are taxed at a flat rate of 20 per cent (Appendix 9.1).

Income by non-resident Filipinos from abroad, net of personal exemption and foreign income tax, are levied at tax rate of 1 to 3 per cent.

Capital gains from sale, exchange or disposition of shares of stocks not traded through a local stock exchange are taxed 10 or 20 per cent,

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1. Passive incomes include interest from Philippine currency bank deposit, deposit substitutes and trust funds and similar arrangements; royalties and prizes and other winnings (except prizes amounting to P3,000 and below and winnings obtained from the Philippines Charity Sweepstakes). Effective January 1, 1989, tax on dividends from domestic corporations were abolished.

depending on the amount of the net gain, while those obtained from stock listed are taxed a one-half of 1 per cent based on the gross selling price of the share(s) of stock.

Meanwhile, capital gains from sale of real property located in the Philippines are taxed 5 per cent based on gross selling price or the fair market value prevailing at the time of sale whichever is higher.

To make the burden of individual income taxes more equitable, married couples are given the option to file their returns separately so they need not be subject to higher tax rate applicable to higher incomes. There are also allowances for personal exemptions to avoid taxing incomes below poverty level.

**Corporate Income Tax.** To remove the unintended bias against large enterprises and to widen the tax base, all corporate income are subject to a uniform rate of 35 per cent (Appendix 9.2). Likewise, the tax on passive income is placed at 20 per cent. (Before the reforms, corporate income was subject to either 25 or 35 per cent tax, depending on the income level.)

In 1989, final withholding tax on dividend from domestic corporation was abolished to eliminate the double taxation of corporate income and to encourage investments in domestic enterprises.

Tax rates on capital gains from sale of share of stocks are similar to that applicable for the individuals.

Income derived by a depository bank under the Expanded Foreign Currency Deposit System, except interest income from foreign currency loan to residents which is subject to 10 per cent tax and other taxable income that may be prescribe by the Department of Finance, are exempted from income tax.

### **1.1.2 Indirect Taxes**

Taxes are likewise imposed on goods and services. Examples of taxes on goods include:

1. Excise tax (tax applied on imported and selected locally produced goods considered as non-essential e.g, petroleum, alcohol, tobacco

and limited range of other goods). It may be specific tax (based on weight or volume of the product) or ad valorem tax (based on percentage of selling price or specified value of product).

2. Original sales tax (tax imposed on sales by manufacturers, producers and sellers of articles, other than those subject to excise tax).
3. Subsequent sales tax or turnover tax (tax imposed every time a business firm, other than the original, sells a taxable product).
4. Export taxes (ad valorem levied on goods that are shipped out of the territorial jurisdiction of the Philippines).
5. Miller's tax (tax applied on certain milled agricultural products).
6. Royalty tax on natural resources (tax imposed in consideration for the extraction of mineral or removal of forest products which belongs to the patrimony of the nation).

Meanwhile, some of indirect taxes applicable to services are:

- (i) Caterer's tax (tax on gross receipts from sale of food or refreshments and spir its)
- (ii) Carrier's tax (tax imposed on carriers for hire)
- (iii) Franchise tax (tax applicable on the special privilege or right conferred by the Government to an individual or corporation)
- (iv) Amusement tax (tax imposed on proprietors/operators of amusement centers)

Beginning 1988, however, the Value Added tax, VAT, (tax imposed on the value added component on each sale of goods and services starting from the beginning and distribution process and culminating with the sale to the final consumer) replaced the sales/turnover tax and a host of other taxes<sup>2</sup>. The applicable tax rate under the VAT is 0 or 10 per cent imposed on each sale in the Philippines of goods and services and on imports to the country. The VAT was intended to provide incentive to manufacturers, producers, millers and importers.

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2. In 1995, the coverage of VAT was expanded to include a wider range of goods and services.

Other taxes imposed are:

1. Tax on estates and trust (tax imposed upon individuals applied on income of estates or any kind of property held in trust, except that which apply to trust fund established for the benefit of the employees) of 0 to 35 per cent of net taxable income.
2. Inheritance tax (tax paid upon the transfer of the net estate) of 5 to 35 per cent of taxable net estate.
3. Gift or donor's tax (tax paid upon the transfer of the property by gift) of 1.5 to 20 per cent of the net gift for resident beneficiary and 10 per cent for non-resident beneficiary.
4. Property tax (tax imposed on the ownership of wealth or immovable properties e.g., land and building).

## **1.2 Tax Structure**

The total revenue from tax collections has continuously increased from 1984-1994. From only 9.53 of GDP in 1984, tax collections steadily rose to 16.1 per cent in 1994 to average 12.8 per cent of GDP during the 11-year period. The expansion in tax collection performance during the period was attributed mainly to the intensified collection efficiency, the adoption of tax incentive schemes, the implementation of tax reform measures particularly in the sales tax and specific tax system and the amnesties on income and real property taxes, withdrawal of tax exemption privileges of government and private entities beginning 1987, broadening of the coverage of the fair market value pricing system for imports and increase in income tax receipts.

Indirect taxes comprised much of the tax revenues averaging 67.7 per cent of total tax revenue while direct taxes (taxes on net income and profit) accounted for an average of 30.6 per cent. While indirect taxes remained to be the major source of fiscal revenues, its proportion to total revenue has been declining (from 71.7 per cent to total in 1984 to 65.2 per cent in 1994) while that of direct taxes has been rising (from 24.2 per cent in 1984 to 33.9 per cent in 1994). Moreover, in terms of growth, revenues from direct taxes grew faster at an average of 24.2 per cent while indirect taxes rose at a slower pace of 18.5 per cent during the period 1984-1994.

The improvement in the aggregate tax on income and profits was due to the significant increases in the tax yield of the individual income tax, the corporate income tax, and other profit taxes (i.e., from passive income and income from stocks and capital gains.) The tax rate hikes on interest income and royalties in 1986 (from 15 per cent to 20 per cent), as well as the relatively high interest rate regime in the last six years completely canceled the negative revenue impact of the abolition of tax on dividends. Moreover, the positive revenue impact of the switch from the schedular to a global system and the reforms in tax administration, particularly the expanded coverage of the with holding system offset the anticipated revenue loss from increased personal exemptions and the separate computation of spouses' tax liability.

## **II. Financial Assets in the Philippines**

In the Philippines, financial assets are mostly in the form of short-term instruments. However, longer term instruments with maturities ranging from 2 - 7 years, mostly treasury securities, are gaining popularity in the market. The shift of investments to longer-term maturities is due largely to a more favorable medium-term outlook for the Philippines, and the desire of the Government to restructure its domestic liabilities, stabilize interest rate and deepen capital market.

Issuers of financial assets in the Philippines are the Bangko Sentral ng Pilipinas, the National Government, government corporations, local government and semi-government entities, private and government banks, and private corporations.

Specifically, following are the broad financial instruments in the Philippines:

### **A. Government issues**

- Treasury bills
- Treasury notes
- Central Bank bills<sup>3</sup>
- Reverse repurchase agreement

---

3. Already being phased out.

Table 9.1

## TAX STRUCTURE AND ITS REVENUE

(Percent of GDP)

Year	Income Tax 1/	Excise Tax	Sales Taxes, Export Tax, VAT & Licenses	Other Direct Taxes 2/	Import Duties and Export Taxes	Other Indirect Taxes 3/	Total
1984	2.31	1.98	1.25	-	3.28	0.39	9.35
1985	3.26	2.36	1.34	0.52	2.93	0.30	10.71
1986	3.14	2.69	1.52	0.33	2.87	0.20	10.76
1987	3.19	3.32	1.78	0.30	3.81	0.19	12.58
1988	3.43	2.45	1.55	0.55	3.13	0.20	11.31
1989	4.06	2.69	1.70	0.42	4.15	0.23	13.23
1990	4.58	2.68	1.88	0.51	4.27	0.16	14.08
1991	4.89	2.04	1.94	0.45	5.16	0.13	14.61
1992	5.19	2.04	2.06	0.62	5.39	0.14	15.44
1993	5.08	2.11	2.15	0.56	5.54	0.15	15.58
1994	5.42	2.34	2.15	1.16	4.81	0.15	16.03
Average	4.05	2.43	1.76	0.49	4.12	0.20	13.05

1/ Consists of taxes on corporate and individual income, passive income, capital gains and stock transactions.

2/ Consists of documentary stamp tax, travel tax and miscellaneous direct taxes.

3/ Consists of other indirect taxes (e.g. real property tax, forest charges, etc.).

Source: Fiscal Statistics Handbook

Bonds floated by various government corporations  
Bonds floated by municipal governments

## **B. Private issues**

### ***Issued by Financial Institutions***

Demand, savings and time deposits (peso and US dollar denominated)  
Common trust fund (peso and US dollar denominated)  
Interbank call loan  
Promissory notes  
Repurchase agreement  
Certificate of assignment  
Commercial papers  
Derivatives (swaps, forward, futures, option)

### ***Issued by Non-financial Institutions***

Commercial papers  
Stocks certificates  
Subscribed capital  
Paid-in capital

## **III. Taxation of Financial Assets**

All income derived from financial instruments are subject to tax except for the dividends, tax of which was abolished beginning 1989. Moreover, transaction tax is imposed for sale of shares of stocks through the local stock exchange.

Table 9.2 shows the taxation of financial instruments in the Philippines.

### **3.1 Interest Incomes**

Interest on Philippine currency bank deposits and yield or any other monetary benefit from deposit substitutes, trust fund and similar arrangements, and royalties derived from sources within the Philippines is subject to a final tax of 20 per cent. However, interest income from pension trust are exempted from tax in order not to reduce the accumulated income of trust beneficiaries.

To encourage inward remittance of foreign exchange into the country by non-residents, income derived from foreign currency deposits is exempted from taxes. The same exemption applies to income derived by depository banks and offshore banking units authorized by the Bangko Sentral to operate in the Philippines.

Domestic and foreign mutual life insurance companies operating in the Philippines are subject to 10 per cent tax on their gross investment income derived from all sources within the Philippines.

### **3.2 Dividends**

Dividends obtained from domestic enterprises are exempted from tax beginning 1989.

### **3.3 Capital Gains**

Sale, exchange or disposition of shares of stocks in any domestic corporation not traded through a local exchange is taxed 10 per cent for net capital gains not over P100,000 and 20 per cent for amounts over P100,000.

Meanwhile, a transaction tax of one-half of 1 per cent (based on the gross selling price or gross value in money of stocks transacted) is imposed for sale, exchange or disposition of shares of stocks listed and traded through the Philippine Stock Exchange (PSE). For shares of stocks through IPO, the following tax rates are applied (on the gross selling price of the shares of stocks) in accordance with the proportion of shares of stocks sold or exchange to the total outstanding shares of stock after listing in the stock exchange:

33 1/3 per cent or below to total outstanding	-	4 per cent
Over 33 1/3 per cent but below 50 per cent	-	2 per cent
Over 50 per cent	-	1 per cent

### **3.4 Others**

Apart from the income and profit tax rates, certain financial transactions are also subject to **documentary stamp tax (DST)**. Stamp tax are collected on bonds, debentures, certificate of indebtedness and certificates of stocks issued, transferred or sold. The DST range from

Table 9.2

## TAX ON FINANCIAL ASSETS

Name of Financial Assets	Tax Rate (In Percent)	Last Date of Amendment	Remarks
SAVINGS, TIME & DEMAND DEPOSITS			
Interest Income	20	July 31, 1986	Tax based on net income; interest income from pension are, however, exempted from tax
STOCKS			
Dividends	0	)	Exemption is effective Jan. 1, 1989; applicable only for dividends from domestic corporation
Capital Gains	)	)	)
Less than P100,000	10	)	)
Greater Than P100,000	20	July 31, 1986 )	Tax based on net capital gain )
Initial Public Offering Tax			
33 1/3% or below to total share	4	)	)
over 33 1/3% or below but below 50%	2	)	)
over 50%	1	May 5, 1994 )	Tax based on the gross selling price of the shares of stock )
Stock Transaction Tax	1/2 of 1%	)	)
BONDS 1/			
	20	July 31, 1986	Tax based on net income

P1.00-P2.00 per P200 of the face value of the financial instrument depending on the type of transaction.

#### **IV. The Impact of Taxation of Financial Assets on Savings**

To determine the impact of taxation of financial assets on savings, a savings function was formulated. Some factors affecting savings pattern based on theoretical and empirical studies on savings behavior were identified and applied in the Philippines.

In this study, the savings behavior of the household sector was examined because historically, households constitute the largest source of net domestic savings in the country. The variables that were considered in the savings equation were (1) household disposable income, (2) real interest rate (computed as the difference between nominal interest rate and inflation rate), (3) the lagged values of savings to capture the static adaptive expectations formulation and (4) a dummy variable to capture the observed deviation of household savings in 1992 due to statistical error. Two regressions of the savings function will be conducted, one using real interest rate before tax and the other, real interest rate after tax. The coefficients of real interest rates will be compared to check the impact of taxation on savings.

Permanent Income Hypothesis stated that savings will respond significantly to changes in transitory income. In the equation, the change in elasticity of disposable income will approximate the transitory income. Thus, it is expected that an increase in transitory income will have greater positive effect to savings than when income is permanent. Meanwhile, real interest rate will have a positive sign since higher rate of return will induce individuals to save more.

##### **4.1 Empirical Results**

To estimate the elasticity of household savings for the Philippines, regressions were run for the period 1977-1992 for the household savings against the explanatory variables as follows:

$$\ln(\text{SAV}) = a + D(\ln Y) + \text{REAL2} + \ln(\text{SAV}(-1)) - D92$$

where:

$$\ln(\text{SAV}) = \text{elasticity of household savings}$$

D(ln Y) = change in elasticity of disposable income  
(measure of transitory income)

REAL2 = real interest rate

where: R = (i - p)

i = nominal time deposit rate after tax

p = inflation rate

ln(SAV(-1)) = elasticity of household savings lagged one period

D92 = Dummy for 1992 due to statistical error

The regression results are as follows:

#### **4.2 Results of Equation 1**

$$\begin{aligned} \ln(\text{SAV}) = & .6204 + 3.6960 \text{ D}(\ln Y) + 0.0294 \text{ REAL2} + \\ & (.9146) (3.1380) (3.5231) \\ & 0.9015 \ln(\text{SAV}(-1)) - 2.1221 \text{ D92} \\ & (15.3117) (-11.7917) \end{aligned}$$

R-squared = 0.9778

Adjusted R-squared = 0.9697

Durbin-Watson Stat = 2.1274

(The statistics in parentheses above are the estimated coefficients t-statistics.)

The explanatory variables of equation 1 (real interest rate after tax) are all significantly different from zero at 5 per cent level of significance. It is also noted that signs of the coefficients are consistent with expectations. The high adjusted R-squared indicates the equation's goodness of fit (see chart in Appendix 9.3). Likewise, the Durbin-Watson statistics indicates absence of serial correlation at 10 per cent level of significance (Appendix 9.3).

To test whether the dependent and explanatory variables are cointegrated (i.e., there exists a long run relationship among the variables), the residuals from the regression was tested for unit root. Though all the series showed nonstationarity, the residual (or disturbance) when tested for unit root was found to be stationary implying that the variables are cointegrated. The Dickey-Fuller (ADF) t-statistics of the residual was significant at both 5 and per cent, indicating that the time

paths of the variables will tend to move roughly together and will not diverge without limit.

### **4.3 Results of Equation 2**

Performing the regression using real interest rate before tax, the following equation was obtained (see Appendix 9.4):

$$\begin{aligned} \ln(\text{SAV}) &= .9281 + 3.5622 \text{ D}(\ln Y) + 0.0296 \text{ REAL4} + \\ &\quad (1.4844) (3.3810) \quad (3.8605) \\ &\quad 0.8669 \ln(\text{SAV}(-1)) - 2.1173 \text{ D92} \\ &\quad (15.4564) \quad (-12.4900) \end{aligned}$$

$$\text{R-squared} = 0.9800$$

$$\text{Adjusted R-squared} = 0.9727$$

$$\text{Durbin-Watson Stat} = 2.1475$$

Regression coefficients in Equation 2 differs marginally from the coefficients earlier obtained in Equation 1. Chart in Appendix 9.4 also shows the goodness of fit of the equation. Similarly, the ADF t-statistics indicated co-integration of the variables tested. It is also noted that the difference in coefficient of real interest before tax is insignificant with that of Equation 1 implying that savings will not vary as a result of the imposition of taxes on financial instrument.

The absence of difference between savings before and after tax may be explained by the fact that changes in the Philippine tax rates on financial instruments hardly changed during the last 20 years, making real interest rate affected more by the movements of nominal interest rates and inflation rate rather than tax. Moreover, while the regression tests find little effect of tax on savings this maybe due to the fact that differences in effective tax rates across assets are likely to give rise to some offsetting market forces. That is, the imposition of tax will only lead individual to shift their savings in more attractive instruments.

## **V. Conclusions and Policy Recommendations**

The regression results of Equations 1 and 2 indicate that income and real interest rate are important factors that influence the savings behavior of households in the Philippines. Thus, to promote domestic savings, it is crucial that income particularly of households, being the

major component of domestic savings, should not be eroded by high inflation rates. Maintenance of a positive real interest rate could greatly expand domestic savings which would finance capital formation, thereby help in sustaining economic growth. Moreover, it was found that taxation of financial instruments does not show significant effect on the savings pattern. However, it should be pointed out that the insignificant difference in savings before and after tax maybe attributed partly to the minimal changes in tax rates over the last two decades. Also, the imposition of tax on certain instruments may have only led to arbitrage or shift in savings to assets whose yield is tax-favored.

Taxes act as a wedge on the financial instruments yield as its reduces the pre-tax return. The general market response to a tax on different forms of capital income, and incomes from different financial assets in particular is manifested in the investors portfolio choices. That is, individuals who are subjected to higher formal tax rates are likely to escape, through tax arbitrage, to ease some part of the burden that the tax structure seeks to impose on them. Investors tend to shift their investments where net return after tax is higher.

In the Philippines, the continued rise in the level foreign currency deposits by both residents and non-residents alike may be attributed not only to the government's foreign exchange liberalization measures but to some extent on the tax exemption accorded to incomes obtained from such an account.

Thus, it is very important to determine at what level the after-tax rate of return of financial assets must be kept in order to encourage financial savings and mobilize the same to help in economic growth.

INCOME TAX ON INDIVIDUALS			
Taxpayer	Taxable Base	Source	Rate
(1) Individual (Resident and Non-Resident)	Net Income	Within the Phils.	0 to 35% based on graduated income
(2) Non-Resident Filipinos	Net Income	Outside the Phils.	1 to 3%
(3) Resident	Philippine currency bank deposits and yield from deposit substitutes and trust fund; royalties, prizes (over P3,000) and other winnings (except Philippine Charity Sweepstakes winnings)	Within the Phils.	20%
(4) Resident	Dividends from a domestic corporation	Within the Phils.	Exempted
(5) Residents	a) Net capital gains from sale of shares of stock not traded in the stock exchange		1/2 of 1%
(6) Resident	Net capital gains from sale of real property based on gross selling price or fair market value, whichever is higher	Within the Phils.	5%

INCOME TAX ON CORPORATIONS			
Taxpayer	Taxable Base	Source	Rate
(1) Domestic Corporations *	Net Income	All sources (within and without the Phils).	35%
(2) Private educational institutions	Net Income	All sources	10% except those covered by Section 24 (e), NIRC
(3) Resident ** foreign corporations	Net Income	Within the Phils.	35%
(4) International carriers doing business in the Philippines	Gross Philippine billings	Within the Phils.	2 1/2%
(5) Foreign corporations doing business in the Philippines through branches	Profit remittances (gross) Interest, rents, dividends, royalties, capital gains, etc. shall not be considered branch profits unless the same are effectively connected with the conduct of trade in the Philippines	Within the Phils.	15% but those engaged in petroleum operations in the Phils. shall pay 7.5%  Exemption: Corporations registered with the Export Processing Zone Authority (EPZA)
<p>* Domestic corporations also pay 20% on interest from deposits and yield or any other monetary benefit from deposit substitutes and from trust fund and similar arrangements, and royalties. With respect to capital gains from shares of stock, they pay the 10% - 20% based on net capital gains or 1/2 of 1% based on gross selling price depending on whether the sale is effected in a local stock exchange or not.</p> <p>** Resident foreign corporations also pay 20% on interest from deposits and yield or any other monetary benefit from deposit substitutes, trust fund and similar arrangements and royalties. They also pay capital gains tax of 10% - 20% or 1/2 of 1% as the case may be from sales of shares of stock.</p>			

INCOME TAX ON CORPORATIONS			
Taxpayer	Taxable Base	Source	Rate
(6) Non-resident foreign corporations (those not doing business in the Phils).	Gross Income	Within the Phils.	35% (a) Reinsurance premiums are exempt; (b) Interest on foreign loans contracted after August 1, 1986 is taxed at 20% and (c) Dividends received from domestic corporations shall be taxed at 15% (d) Capital gains from shares of stock, taxed at 10% - 20% or 1/2 of 1% as the case may be.
(7) Non-resident cinematographic, film owners, lessors and distributors	Gross Income (film rentals, etc.)	Within the Phils.	25%
(8) Non-resident owners of vessels chartered by Phil. nationals	Gross rentals, lease and charter fees	Within the Phils.	4.5% (final tax)
(9) Non-resident lessors of aircraft, machineries and other equipment	Gross rentals, lease and charter fees	Within the Phils.	8.5%

INCOME TAX ON CORPORATIONS			
Taxpayer	Taxable Base	Source	Rate
(10) Domestic corporations	Phil. currency bank deposits and yield from deposit substitutes and trust fund, and royalties	Within the Phils.	20%
(11) Domestic corporations	(a) net capital gains from sales of shares of stock not traded in the stock exchange	(a) Within the Phils.	(a) 10% for amount not over P100,000 and 20% for over P100,000
	(b) Gross selling price of shares traded in local stock exchange		(b) 1/2 of 1%
(12) Domestic mutual life insurance company	Gross investment income	Within the Phils.	10%
(13) Foreign mutual life insurance companies doing business in the Philippines	Gross investment income	Within the Phils.	10%
(14) Offshore banking units and depository banks under the expanded foreign currency deposit system		see notes below	

INCOME TAX ON CORPORATIONS			
Taxpayer	Taxable Base	Source	Rate

(1) The following shall be tax-exempt:

(a) Income derived by offshore banking units authorised by the Central Bank from foreign exchange transactions with:

- (i) Non-residents;
- (ii) Other offshore banking units;
- (iii) Local commercial banks;
- (iv) Branches of foreign banks duly authorised by the Central Bank to transact business with offshore banking units;

(b) Income derived by depository banks under the expanded foreign currency deposit system from foreign currency transactions with:

- (i) Non-residents;
- (ii) Offshore banking units;
- (iii) Local commercial banks;
- (iv) Branches of foreign banks; and
- (v) Other depository banks under the expanded foreign currency deposit system.

(2) The Department of Finance upon the recommendation of the Central Bank may determine what net income from foreign exchange (or foreign currency) transactions of the offshore banking units (or depository banks under the expanded foreign currency system) may be subject to usual income taxes payable by banks.

(3) Interest from foreign currency loans granted to residents (by offshore banking units or depository banks under the expanded foreign currency deposit system) shall be subject to 10% final withholding tax.

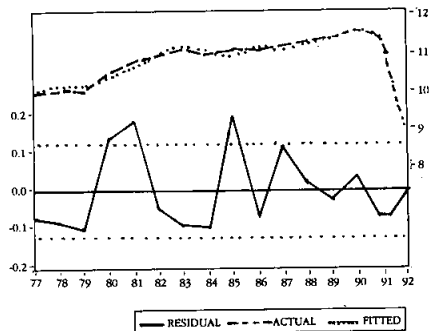
(4) Income of non-residents from foreign currency transactions shall be tax-exempt.

Source: The National Internal Revenue Code

Variable	Coefficient	Std. Error	T-Stat	2-Tail Sig.
C	0.6204118	0.6783680	0.9145653	0.3800
D(LY)	3.6959671	1.1778169	3.1379810	0.0094
REAL2	0.0294398	0.0083562	3.5230871	0.0048
LSAV(-1)	0.9014949	0.0588763	15.311688	0.0000
D92	-2.1220968	0.1799647	-11.791738	0.0000
R-squared	0.977812	Mean of dependent var	10.72669	
Adjusted R-squared	0.969744	S.D. of dependent var	0.705289	
S.E. of regression	0.122680	Sum of squared resid	0.165554	
Log likelihood	13.86536	F-statistic	121.1920	
Durbin-Watson stat	2.127378	Prob (F-statistic)	0.000000	

Augmented Dickey-Fuller: UROOT (T,2) RESID

Dickey-Fuller t-statistic	-4.1836
MacKinnon critical values: 1%	-4.8870
5%	-3.8288
10%	-3.3588



Variable	Coefficient	Std. Error	T-Stat	2-Tail Sig.
C	0.9281099	0.6252250	1.4844414	0.1658
D(LY)	3.5622217	1.0536095	3.3809697	0.0061
REAL4	0.0295715	0.0076600	3.8605240	0.0027
LSAV(-1)	0.8668917	0.0560664	15.456369	0.0000
D92	-2.1172536	0.1695164	-12.489966	0.0000
R-squared	0.979946	Mean of dependent var		10.72669
Adjusted R-squared	0.972654	S.D. of dependent var		0.705289
S.E. of regression	0.116631	Sum of squared resid		0.149630
Log likelihood	14.67439	F-statistic		134.3819
Durbin-Watson stat	2.147541	Prob (F-statistic)		0.000000

Augmented Dickey-Fuller: UROOT (T,2) RESID

Dickey-Fuller t-statistic	-3.5739
MacKinnon critical values: 1%	-4.8870
5%	-3.8288
10%	-3.3588

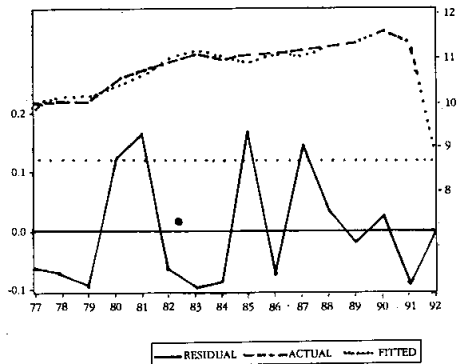


Chart 9.1

**SAVINGS AND REAL INTEREST RATE (AFTER TAX)  
IN THE PHILIPPINES**

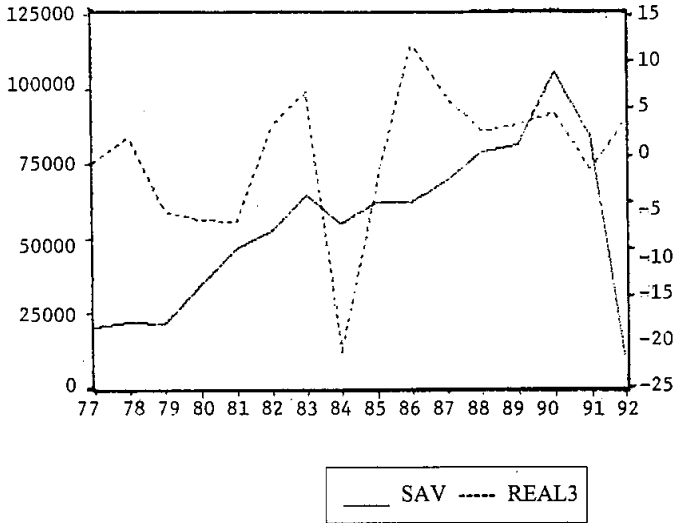
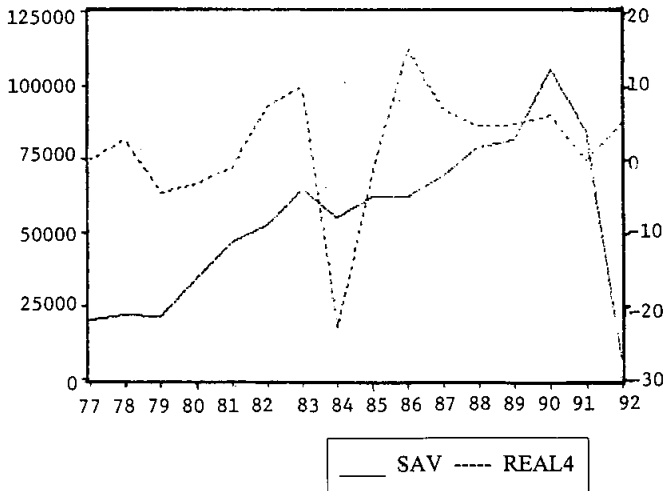


Chart 9.2

**SAVINGS AND REAL INTEREST RATE (BEFORE TAX)  
IN THE PHILIPPINES**



## **Chapter 10**

### **TAXATION OF FINANCIAL ASSETS IN SINGAPORE**

**by**

***Tok Yoke Wang***

#### **I. Tax System in Singapore**

##### **1.1 Overview**

The main statutes that set out the legislation on income taxation in Singapore are the Income Tax Act and the Economic Expansion Incentive Act.

The most significant tax reform in Singapore in recent years was the introduction of the Goods and Services Tax (GST) in April 1994. The rationale for implementing the GST is to broaden our tax base and simplify the tax system. A simplified tax system facilitates compliance and lowers both administrative and business cost.

Chart 10.1 shows the components of the government's operating revenue. Tax revenues account for more than 79 per cent of the government's operating revenue. The major source of non-tax revenues come from licences and permits which include collections from Certificates of Entitlements<sup>1</sup>. For tax revenues, direct taxes<sup>2</sup> take up a larger proportion (53 per cent) than indirect taxes. Corporate taxes account for the bulk (69 per cent) of income tax collections in Singapore.

##### **1.2 Tax Structure**

Chart 10.2 illustrates the tax-revenue to GDP ratio which has been rising from around 13 per cent in 1987 to around 17 per cent in 1995. In Singapore, tax revenue is highly procyclical. Indeed, Singapore's tax

- 
1. The population of cars in Singapore is controlled under a quota system. Buyers of motor-vehicles have to bid for a Certificate of Entitlement before they can purchase any vehicles.
  2. Direct taxes include income tax and asset tax.

elasticities is among the highest when compared to other major OECD countries (see Chart 10.3). For instance, the personal income tax elasticity is estimated to be around 2. In comparison, the personal income tax elasticity for the major industrial economies ranges from below 1 to about 1.5.

Several factors account for this strong procyclicality. First, the procyclicality of direct taxes is due to the cyclical behaviour of corporate profits which accounts for the bulk of Singapore's income taxes. Moreover, given the progressivity of the personal income tax schedule, personal income tax receipts also tend to grow more rapidly than the tax base. Even if GDP were at its trend level, as prices and wages rise over time, personal incomes would shift into higher tax brackets if tax schedules are not adjusted.

Second, though indirect taxes display lower responsiveness to GDP than direct taxes, there are some items such as stamp duties, foreign worker levies and motor-vehicle related revenues which are highly procyclical.

The rest of this section is devoted to a discussion of the different types of taxes in greater detail.

### ***1.2.1 Personal Income Tax***

Singapore has a progressive tax structure which ranges from 2 per cent on the first \$5000 to 28 per cent for income exceeding \$400,000. This takes effect from the Year of Assessment 1997. Out of the 1.8 million workers in Singapore, about 78 per cent of them do not pay income tax.

### ***1.2.2 Corporate Income Tax***

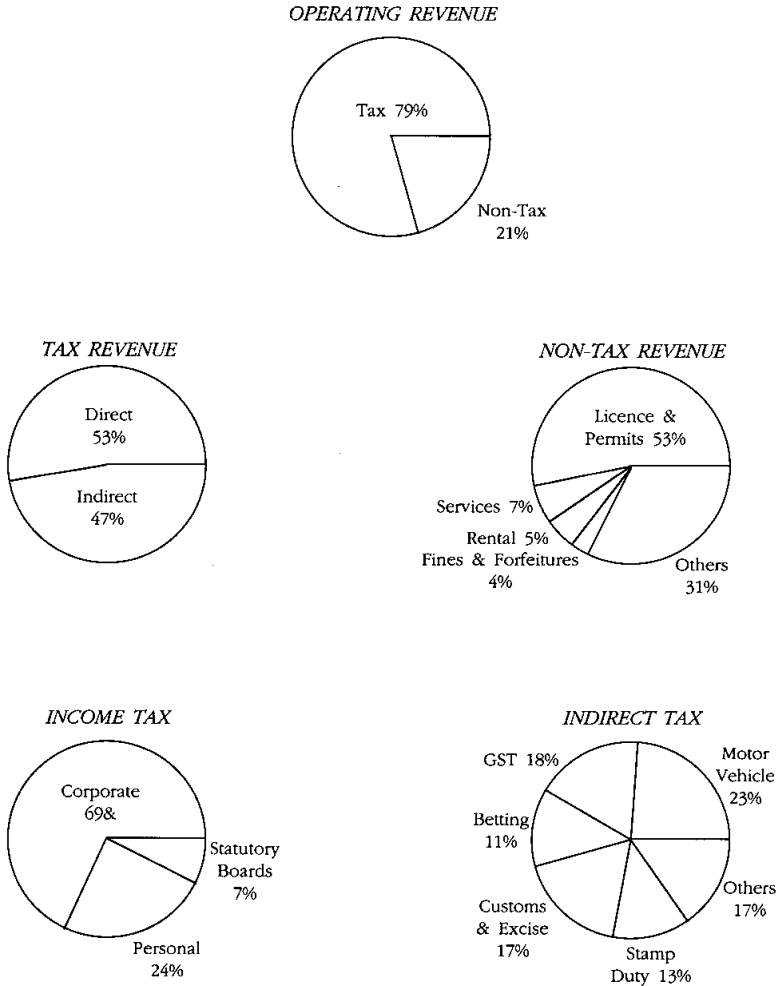
The corporate income tax rate has been reduced further by 1 per cent point to 26 per cent with effect from Year of Assessment 1997. This brings it closer to the Government's medium term target of 25 per cent.

### ***1.2.3 Assets Tax***

This includes property tax and estate duty. With effect from 1 July 1996, the property tax is set at 12 per cent of the annual value of

**Chart 10.1**

**COMPONENTS OF OPERATING REVENUE, 1995/96\***



\* measured in fiscal year.

Chart 10.2

### TAX REVENUE TO GDP RATIO

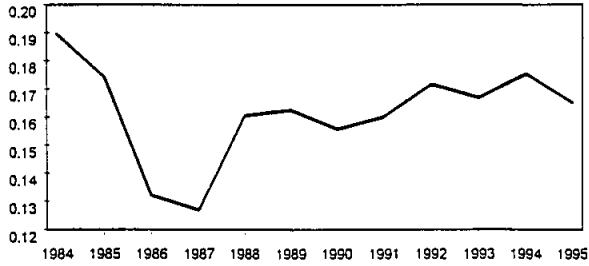
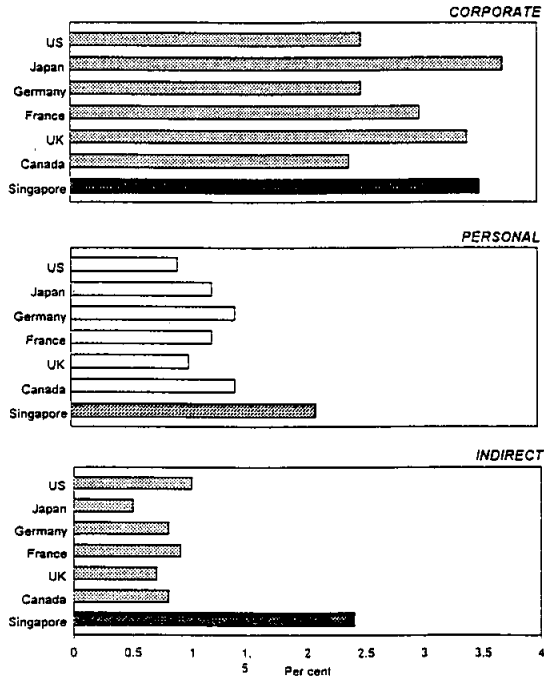


Chart 10.3

### TAX ELASTICITIES



Source: "Indicators of Fiscal Policy: A Reassessment," OECD Working Paper No. 78.

immovable property. Estate duty is levied on the value of the descendant's real and personal property. This is structured into 2 tiers. The first S\$12m of estate chargeable is taxed at 5 per cent and all subsequent amounts at 10 per cent.

#### ***1.2.4 Customs & Excise Duties***

Import duty is levied on liquor, tobacco, petroleum products and motor vehicles. Excise tax is levied on petroleum products and alcoholic drinks manufactured in Singapore.

#### ***1.2.5 Betting Tax***

Betting tax is levied at the rate of 25 per cent on the amount of bets placed.

#### ***1.2.6 GST***

GST or value-added tax was introduced in April 1994. It is levied at 3 per cent. There are few exemptions; the main ones are export of goods and international services from Singapore, certain financial services, life insurance and the sales and lease of residential land and buildings.

#### ***1.2.7 Other Taxes***

These include:

- entertainment tax: 3 per cent
- duty on petrol: 60 per cent of pump prices
- film hire tax: 15 per cent of producer's share of film rentals
- sweepstakes duty: 30 per cent of contribution towards sweepstakes
- private lotteries duty: 30 per cent of gross proceeds of lotteries
- airport tax: \$15 for regional and international flights
- foreign workers levy  
All employers of foreign workers are required to pay a monthly levy for each foreign worker. The levy varies across industries and skills-level of the workers. In general, it does not exceed S\$450 per employee per month.
- skills development levy

This is a levy on employers only. The current rate is 1 per cent of the salary of employees earning more than S\$1000 per month.

- public utilities tax and water conservation tax
- tourist promotion fund levy

### **1.3 Tax Incentives<sup>3</sup>**

Since the early 1960s, the government has used various tax incentives to encourage economic development. Most of these incentives are set out in the Economics Expansion Incentives Act. These incentives fall into four broad categories:

- incentives which are intended to encourage the setting up or expansion of certain industries eg. pioneer industries incentives;
- incentives to encourage diversification eg. investment allowance and incentives for investment in new technology companies;
- incentives to generate export-oriented activities eg. the incentive granted for production for export; and
- incentives to encourage the import of foreign expertise and assistance eg. incentive for royalties, fees and development contributions

Many tax incentives have been set up to encourage the development of Singapore as a finance, treasury, trade and regional centre. They include the following: Operational Headquarters Incentive, Approved Fund Manager Incentive and International Commodity Trader Incentive.

## **II. Financial Assets in Singapore**

Financial assets in Singapore can be broadly classified into the following categories (Table 10.1):

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3. The materials for this section is extracted from *Singapore Master Tax Guide, 1995*.

## **2.1 Taxation of Income Derived from Financial Assets**

Table 10.2 summarises the rate of taxation for different types of financial assets in Singapore. As is apparent from the table, the tax treatment of income derived from financial assets is rather simplified. For instance, there is no multi-tier tax structure on interest income from deposits.

## **2.2 Interest and Dividend Income**

Interest income from deposits and dividends from shares and bonds are taxed at the marginal income tax rate, if it accrues to individuals or the corporate tax rate, if it accrues to corporations; there is no special treatment. Dividends and interest income account form only a small percentage of total assessable income (about 4 per cent).

## **2.3 Capital Gains Tax**

There is no capital gains tax in Singapore. However, income from trading profits may be taxed at the income tax rate.

# **III. Impact of Taxation on Savings<sup>4</sup>**

## **3.1 Introduction**

In this section, we examine the impact of taxation on savings using an econometric approach. There has been much controversy in the empirical literature over the size of the coefficient on the real after-tax return or effective interest rate. According to Denison's Law, the savings rate is unaffected by changes in the real after-tax rate of return. Most empirical studies have found the interest elasticity of savings to be low. However, Michael Boskin, in his 1978 article<sup>5</sup>, refuted this argument when he found the interest elasticity of private saving to cluster around the range 0.3-0.4. While this may not seem like a high elasticity by conventional standards, it is higher when compared to virtually all

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4. I would like to thank Edward Robinson and Ravi Menon for their many invaluable and constructive comments, and Sophia Wong for excellent statistical support.

5. Boskin Michael (1978), "Taxation, Saving and the Rate of Interest," *Journal of Political Economy*, V86:2.

Table 10.1

**TYPES OF FINANCIAL ASSETS**

<b>Stocks</b>	<b>Bonds</b>	<b>Bills</b>	<b>Deposits</b>	<b>Derivatives</b>
Debentures	Government bonds	Treasury bills	Demand deposits	Swaps
Loan stocks	Domestic bonds	Bills of Exchange	Savings deposits	Forwards
Government stocks	Asian Dollar bonds		Fixed deposits	Futures
Private stocks			Negotiable Certificate of Deposits	Options
			Asian Currency Units	

Table 10.2

## TAXATION OF FINANCIAL INSTRUMENTS

Name of Financial Assets	Per Cent of Tax	Last Date of Amendment
<b>Deposits</b>		
Demand Deposit	<p>] For individuals, interest income is taxed at marginal tax rate which range from 2% to 28%. For non-residents, interest income from approved banks is tax exempt.</p> <p>] For companies, interest income is subject to corporate tax rate of 26%.</p> <p>0</p> <p>Dividend to shareholders is taxed at the marginal tax rate. A credit equal to the company tax (27% of every \$1 of dividend income) paid is allowed against the taxpayer's tax liability. This imputation credit is available to both corporate of individual shareholders whether they are resident or non-resident.</p> <p>Note: Dividends that are paid out of a tax exempt account by companies enjoying tax holidays or tax reduction under incentives schemes are exempt from tax. For instance, dividend from offshore re-insurance business, and offshore banking.</p>	1996
Savings Deposit		
Time Deposit		1996
Capital Gains		
Dividends		1996
<b>Capital Inflows</b>	0	-
<b>Capital Outflows</b>	0	-
<b>Bonds</b>	Interest from bonds is treated as in (1). For non-residents, interest income on Asian dollar bonds is exempted from tax. Government bonds are tax exempt.	1996
<b>Others</b>	Please see appendix 10.1 and appendix 10.2.	

previous estimates and has major implications for the effect of tax policy on income, welfare and income distribution.

As a first step in assessing the role of after-tax interest rates on savings behaviour in Singapore, all relevant variables are subjected to unit root testing. Next, we specify the savings function using the Engel-Granger methodology. Section 3.4 summarises the estimation results.

### **3.2 Testing for Unit Roots**

The detection of non-stationary variables is an important step in the process of estimation because their presence can lead to spurious correlation. This refers to the observation of apparently significant relationships between unrelated variables that both trend upwards over time. The consequences of spurious regression are numerous: *t*-statistics from OLS regressions no longer converge to limiting distributions as sample size increases, leading one to reject the null hypothesis of non-significance all too frequently, Durbin-Watson statistics approaches zero and  $R^2$  tends to unity (Phillips(1986)). The upshot of all this is that wrong inferences may be made when variables are non-stationary.

In this section, we test all our series for unit roots as a preliminary check. On confirmation that the series contain unit roots, we will take the steps necessary to overcome the spurious regression problem.

The most common method of testing for unit roots is the Dickey-Fuller (DF) and the Augmented Dickey Fuller (ADF) tests. The ADF differs from the DF test in that extra terms of the lagged dependent variables are introduced to 'mop-up' autocorrelation. In this study, the ADF test is used<sup>6</sup>. The results are tabulated in Table 10.3. We find that all the series are  $I(1)$  (i.e. stationary after first differencing), confirming the presence of unit roots in their levels.

### **3.3 Specification of the Savings Function**

The theoretical framework underpinning our specification of the savings equation is the life-cycle hypothesis (LCH), pioneered by Ando and Modigliani (1963) and Modigliani (1970). According to this hy-

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6. The E-Views program is used for conducting the ADF test as well as for all subsequent estimations and testing.

**Table 10.3**  
**ADF TEST FOR UNIT ROOTS**

Series <sup>7</sup>	ADF Statistics <sup>1/</sup>	
	Levels	First Difference
Gross Domestic Savings rate	-1.57	-2.86*
Government Savings rate	-1.77	-3.71**
CPF Savings Ratio	-0.67	-2.04*
Dependency ratio	-2.82	-3.72**
Nominal After-Tax Return	-1.06	-5.63***
Inflation	-1.37	-5.64***
GDP Growth	-1.54	-3.07**

1/ ADF = Augmented Dickey Fuller statistics;

H0 : presence of unit root, reject at 1% (\*\*\*), 5% (\*\*), 10% (\*) significance level.

pothesis, savings is adjusted in order to smooth out consumption over time, based on anticipated lifetime income.

An important implication of the LCH is that the aggregate savings rate is directly influenced by the distribution of income by age. The young and elderly tend to dissave while people in their prime earning age save the most. Consequently, in a society with stationary population and income, there would be no aggregate net personal savings since the dissaving of the retired would exactly offset the savings of the employed.

A corollary to this hypothesis is the postulate that a positive relationship exists between income growth and the savings rate at the aggregate level. This is because a positive rate of income growth

7. Please see Section 3.3 for a definition of these variables.

makes young savers more affluent and numerous than older dissavers, thereby raising aggregate savings.

Demographics has also been found to be an important factor affecting savings rate. Some empirical studies on East Asia<sup>8</sup> have found evidence that a combination of both high income growth and low dependency ratio has contributed to the high savings rate in East Asia.

Using the LCH framework outlined above, we specify the savings equation using the Engel-Granger two-step procedure. In the first step, we search for a long-run co-integrating relationship via the following specification:

$$gdsy = \alpha_1 * gsavy + \alpha_2 * cpfsavy + \alpha_3 * dr + \alpha_4 * rr + \alpha_5 * gdp_g + \text{constant}$$

Variable		Definition
gdsy	gross domestic savings rate	(GDP - Consumption - statistical discrepancy)/nominal GDP
gsavy	government savings rate	(Government revenue - government consumption)/nominal GDP
cpfsavy	cpf savings rate	CPF savings/nominal GDP
dr	dependency ratio	Ratio of population aged below 20 and over 55 to total population
rr	after-tax real rate of return	Weighted average of savings and fixed (3,6,12 month duration) deposit rates adjusted for corporate tax rate adjusted for CPI inflation
gdp_g	gdp growth	year-on-year real GDP growth

8. See for example, *Collins* (1989), "Savings Behaviour in Ten Developing Countries", in Bernheim, Douglas and John Shoven (eds), *National Saving and Economic Performance*, National Bureau of Economic Research and *Labiri* (1989) "Dynamics of Asian Savings: The Role of Growth and Age Structure", *IMF Staff Papers*, Vol 36, No. 1, International Monetary Fund.

The coefficient on government savings,  $\alpha_1$  allows us to test for *Ricardian Equivalence*. According to this hypothesis, changes in government savings rates induce offsetting changes in private savings behaviour, *implying no change in the overall savings rate*. If  $\alpha_1=0$ , Ricardian Equivalence holds, implying full-offsetting behaviour on the part of the private sector. But if  $\alpha_1>0$ , there is only partial offset, if  $\alpha_1=1$ , there is no offset (i.e. full pass-through). Thus, the permissible range for  $\alpha_1$  is:

$$0 < \alpha_1 \leq 1$$

$\alpha_2$  is the coefficient on compulsory CPF savings. This coefficient measures the degree of substitutability between compulsory (or involuntary) savings and voluntary savings. The more substitutable is CPF savings for private, voluntary savings, the more offsets to overall savings and the lower is the coefficient:

$$0 < \alpha_2 \leq 1$$

Based on the LCH, the coefficients on GDP growth,  $\alpha_5$ , is expected to be positive, whereas the coefficient on dependency ratio,  $\alpha_3 < 0$ , is expected to be negative. The sign of the coefficient on the after-tax interest rate variable,  $\alpha_4$ , is ambiguous, depending on the relative size of the income and substitution effect.

The residuals of the long-run regression are tested for unit roots. If the null hypothesis of unit roots (i.e. no co-integration) is rejected, a co-integrating relationship is said to exist. In this case, the co-integrating equation is used to generate values for the 'equilibrium' GDS ratio. Deviations from actual observed values are then derived and used as inputs in the second-step.

In the second step, an equation in error-correction form is specified using the errors derived from the first-step as inputs for the error-correction term. This follows from the Granger Representation Theorem which states that if two variables are co-integrated, then the 'disequilibrium' relationship can always be represented by an error correcting model (ECM) and vice versa. All variables are specified in differences, except the error term from the first step. The error term is entered lagged because deviations from equilibrium can only be defined ex-post.

The major appeal of the ECM specification is that it takes into account non-stationarity while at the same time incorporating both short-run dynamics and long-run information. This is an advantage over the usual method of avoiding non-stationarity by specifying all variables in differences, resulting in the loss of long-run information.

The short-run dynamic equation is specified as follows:

$$\Delta gdsy = \alpha_1^* \Delta gsave + \alpha_2^* \Delta cpfsave + \alpha_3^* \Delta dr + \alpha_4^* \Delta rr + \alpha_5^* \Delta gdp + \delta^* error\_1 + constant$$

For the above ECM equation to be valid, the adjustment coefficient,  $g$  must be negative and significant. This is the error-correction mechanism inherent in any ECM equation. The negative coefficient on  $g$  implies that the system will move back towards its defined equilibrium by adjusting its level this period using the error made last period. For instance, if savings is above the equilibrium level last period, implying a positive error; a negative adjustment will be made to the change in GDS ratio this period in order to minimise the discrepancy. This, in essence, is the spirit of the error-correcting mechanism.

### **3.4 Results**

Table 10.4 presents the estimates of the long-run savings functions and the short-run error correction model.

#### **3.4.1 Long-Run Factors**

The long-run equation gives the equilibrium relationship between savings and its determinants. We experimented with several formulations of the rate of return variable - the variable of interest in this study. In equation 1, we tried the real after-tax rate of return, while in equation 2, the nominal after-tax rate of return and the inflation rates are entered separately.

Equation 1 is our preferred long-run equation, given our *a priori* belief that the dependency ratio has a significant and negative effect on the savings rate (this coefficient was insignificant in Equation 2). The residuals of this equation yielded an ADF statistics

of -2.03, which exceeded the critical value of -1.94<sup>9</sup> (i.e. no evidence of persistence), confirming that equation 1 is indeed a co-integrating relationship.

The after-tax real rate of return has a negative effect on the gross domestic savings rate. The interest-elasticity, estimated at -0.01, is of the opposite sign from Boskin's estimate. It should be noted that Boskin's estimate is derived using private savings, whereas ours' used gross domestic savings. If private savings<sup>10</sup> was used as the dependent variable, the coefficient is slightly higher: -0.02. The interest elasticity is highest when the nominal after-tax return was used (see equation 2). The coefficients ranges from -0.04 to -0.06 depending on which savings rate was used as the dependent variable. See the Table below.

Interest Elasticity	Dependent Variable used	
	Gross Domestic Savings	Private Savings
Nominal After-Tax return	-0.04*	-0.06*
Real After-Tax return	-0.01*	-0.02*

\* Indicates significance at 5% level.

Private savings, being more narrowly defined, is more responsive to the effective rate of return than gross domestic savings. In the empirical literature, it is common to obtain ambiguous results on this variable<sup>11</sup>.

9. McKinnon critical value for co-integration test.

10. Private savings is defined as non-government savings i.e. gross domestic savings less government savings.

11. Musgrave and Musgrave (1974, p. 478) reported that 'studies of the relationship between saving and the rate of interest differ in their conclusion. Some hold that there is a substantial negative relationship, while others attribute little weight to the rate of interest in the consumption function.

Table 10.4

**DEPENDENT VARIABLE: GROSS DOMESTIC SAVINGS  
RATE (GDS)**  
Annual Data  
Sample: 1970-1994

Explanatory Variables	Long-run Co-integrating Equation		Short-run Error Correction Model 2/
	Column 1 3/	Column 2	
Constant	0.60 * (0.13)	0.74 * (0.18)	0.03 * (0.02)
Government Saving 1/	0.28 * (0.09)	0.27 * (0.11)	0.13 * (0.08)
CPF Saving 1/	0.35 * (0.09)	0.47 * (0.14)	0.69 * (0.17)
Dependency Ratio	-0.32 * (0.14)	-0.15 (0.23)	0.89 * (0.60)
Real After-Tax Return	-0.01 * (0.003)	—	-0.006 ** (0.025)
Nominal After-Tax Return	--	-0.04 * (0.02)	--
Inflation	—	-0.06 * (0.03)	--
GDP Growth	0.01 * (0.005)	0.02 * (0.01)	0.02 ** (0.06)
Lagged Error Term	--	—	-0.35 * (0.25)
Adj R-squared	0.943	0.945	0.503
S.E. of Regression	0.066	0.064	0.053
D.W.	1.275	1.415	2.088

Figures in parentheses are standard errors. Significant at 5% (\*\*) and 10% (\*) significance level.

1/ Expressed as ratio to nominal GDP.

2/ All variable in first differences, except error correction term.

Error correction term based on preferred equation in Column 1.

3/ Preferred equation.

The negative relationship between savings and interest rate persists, regardless of the definition of savings and interest rate used. This implies the dominance of the income effect over the substitution effect<sup>12</sup> following an increase in the after-tax return. The coefficient on the real after-tax return is sufficiently stable over the estimation period - its recursive estimate hovers near -0.005 (see Chart 10.4). Thus, assuming all other things constant, a lower rate of taxation works through the interest rate variable by raising the effective rate of return on private savings, and leads to a lower savings rate (income effect outweighs the substitution effect).

If Ricardian equivalence holds, the coefficient on government savings should be zero. The coefficient on government savings is positive and significant (0.28). This suggests that shifts in government savings ratio have to some extent, induced offsetting behaviour on the part of the private sector i.e. a weaker Ricardian equivalence effect. Of interest is the difference in the size of coefficients in the short-run and long-run. The long-run coefficient (0.28) is higher than the short-run coefficient (0.13). This is counter-intuitive because in a dynamic setting, agents need time to adjust their behaviour following an exogenous change in fiscal policy stance, implying more offsets (i.e. a lower coefficient) in the long-run than the short-run. One reason for this result could be due to the interaction of the income growth variable with government savings. The income growth term affects government savings as much as it affects overall savings. This may have created an upward bias in the long-run coefficient on government savings as the GDP growth variable drives up government savings, inducing a larger response in the long-run.

CPF savings is found to have a positive contribution to the GDS ratio both in the short and long-run. In contrast to government savings, the 'CPF effect' is stronger in the short-run (0.69) than the long-run (0.35). This reflects the 'consumption-smoothing' behaviour of individuals who adjust their discretionary savings to their desired levels, after taking into account their compulsory CPF savings.<sup>13</sup>

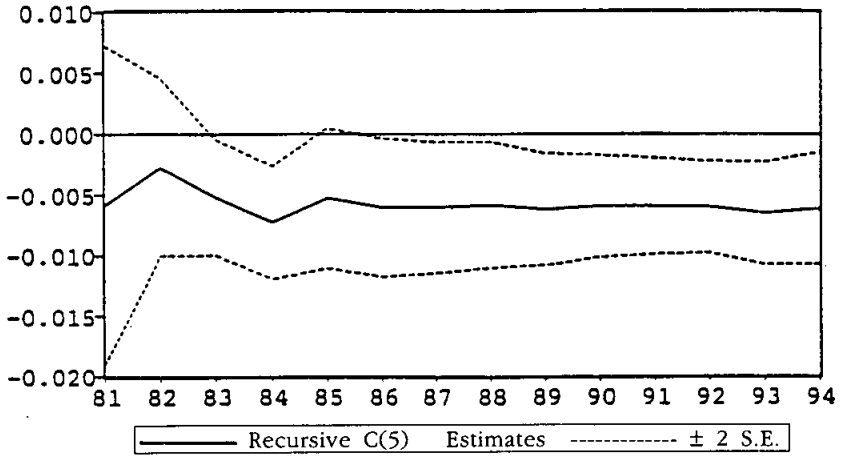
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12. An earlier study by Yeow Ju Li in "Domestic Resource Mobilisation in SEACEN countries," found an inverse relationship between the savings rate and nominal interest rate.

13. This result is confirmed by a similar study on savings in Singapore by Edward Robinson (1994). Using some non-parametric tests (coefficients and pairwise Granger-Causality tests), he showed that the degree of linear association between GDS and CPF savings has declined since 1988.

Chart 10.4

RECURSIVE ESTIMATES FOR COEFFICIENT  
ON AFTER-TAX REAL RETURN



In fact, the recursive estimate of the coefficient on the CPF savings term shows a decline from around 2 in the early '80s to a new level of around 1 after the mid-1980's (See Chart 10.5). The progressive liberalisation in the use of CPF funds in the late 1980's has made CPF savings more and more substitutable with private savings and led to a higher offset to overall savings. This explains the lower coefficient after the mid-1980's.

Real GDP growth exerts a positive and significant influence in the long-run. A 1 per cent point increase in real GDP growth will cause the savings rate to grow by 0.01 per cent point.

Dependency ratio has a negative effect on the GDS ratio - for every 1 per cent point reduction in the dependency ratio, the savings rate rises by 0.32 per cent point.

### ***3.4.2 Short-Run Factors***

The determinants of savings in the short-run are the same as those in the long-run (see Table 10.4). The ECM equation passes the usual diagnostic tests for mis-specification, heteroscedasticity, autocorrelation, stability and normality of residuals. As apparent from Chart 10.6, the residuals are mean-reverting.

Indeed, the adjustment coefficient on the error-correction term is significant and negative: -0.35, confirming the validity of the ECM specification.

### ***3.4.3 Contribution to Savings Growth***

Gross domestic savings rate has increased from close to 20 per cent in 1970 to 51 per cent in 1994. In Table 10.5, we present a decomposition of the change in savings rate into the relative contributions from each of the explanatory variables.

The combined effect from demography and economic growth account for more than one-quarter of the increase in GDS ratio over the period 1970-1994 (see Chart 10.7). Looking at the sub-periods, the contribution from GDP growth was negative during the 1971-1985 period (due to the 1985 recession) but positive during the 1986-1994 period. The contribution from the demographic variable was positive,

Chart 10.5

RECURSIVE ESTIMATE OF CPF SAVINGS COEFFICIENT

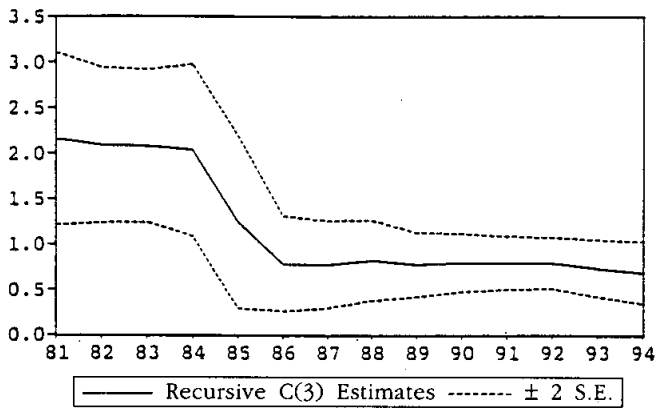


Chart 10.6

RESIDUALS FROM ECM

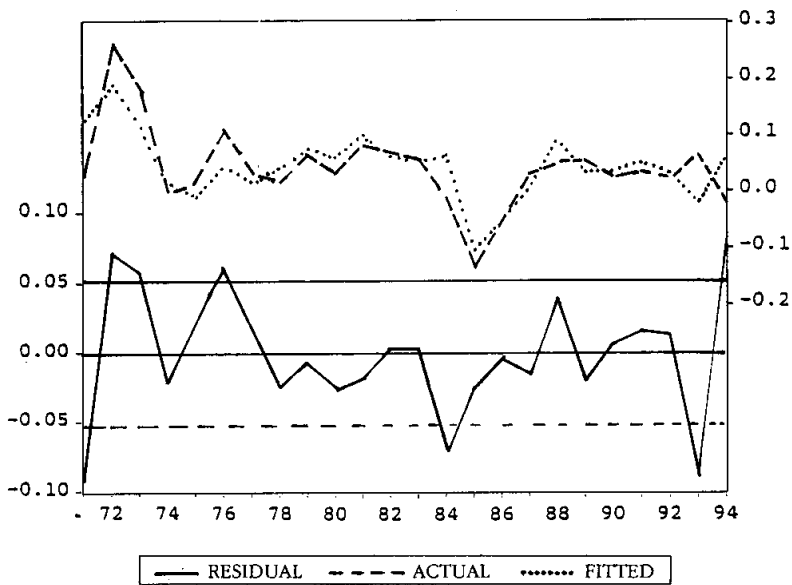


Table 10.5

CONTRIBUTION TO GROWTH IN SAVINGS RATE<sup>\*/</sup>

Explanatory Variables	% Point Contribution		
	1971-1994	1971-1985	1986-1994
Government Savings	21.4	11.3	61.3
CPF Savings	43.9	78.6	-93.4
Dependency Ratio	31.7	35.8	15.4
After-Tax Real Return	7.6	1.0	34.0
GDP Growth	-4.6	-26.7	82.7

<sup>\*/</sup> The co-integrating equation is used in this decomposition.

both in the overall period and sub-periods, reflecting the favourable effects, on savings, of a younger population (i.e a decline in the dependency ratio).

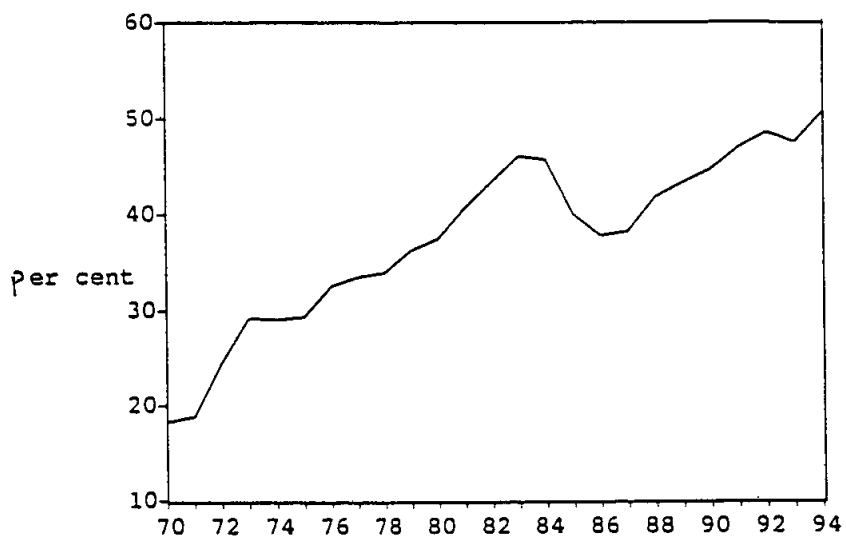
The fall in the after-tax real return contributed about 8 per cent points to the increase in GDS ratio (see Chart 10.7). The after-tax real return fell because of a combination of factors. First, nominal interest rates fell from 5.3 per cent in 1970 to around 3 per cent in 1994. This has more than offset the decline in tax rates<sup>14</sup>, leading to an overall fall in effective return. Second, during the oil-shock years of 1973-1974 when inflation averaged 20-22 per cent, the real effective return fell by 16-17 per cent.

CPF savings account for about 44 per cent points of the increase in GDS ratio over the entire period: 1971-1994, almost double the percentage contribution from government savings. If we look between the two sub-periods, we find that the contribution from CPF savings fell drastically while that from government savings increased. This is because CPF savings has become more and more substitutable with

14. Lower taxes raise the effective rate of return.

Chart 10.7

GROSS DOMESTIC SAVINGS RATE



private savings in the later period, a result consistent with the declining recursive estimates that we found earlier. To a large extent, both the CPF and government savings variables are themselves driven by GDP growth. This may explain why GDP growth did not come in as strongly as one would expect. However, it is difficult to isolate the effects of GDP growth from the rest of the right-hand side variables.

Summarising, in the long-run, Singapore's rising savings rate can be explained in large part by its falling dependency ratio and a growing pool of CPF savings and government surplus.

## **IV. Conclusion**

### **4.1 Policy Issues**

Singapore's gross domestic savings rate, at 50 per cent of GDP, is high vis-a-vis other countries. This has been underpinned by structural factors such as a young population, buoyant economic growth, healthy government surpluses and CPF savings. Singapore's tax rates have been largely conducive to fostering savings, but they have not been the main driving factor. As we found in Section 3, the after-tax real rate of return has had a negligible impact on savings. Tax considerations do not seem to have mattered in influencing the savings rate.

Tax policy in Singapore has been geared towards promoting sustained economic growth and maintaining the economy's competitiveness. It has not been motivated by a desire to raise the savings rate, which is already high by international standards. A lower tax regime would increase work effort, lower business costs and attract businesses to set up in Singapore. It would also raise the rate of return to capital relative to labour, and induce greater investments. Higher investments, especially in equipment and infrastructure, will boost productivity through increased capital deepening and thereby raise the productive capacity of the economy. The government's aim of reducing corporate and property taxes to a medium-term target of 25 per cent and 12 per cent respectively is geared towards this objective of maintaining competitiveness and stimulating investments.

Looking into the future, an ageing population and slower economic growth will increase the fiscal burden of the government. To

address this problem, the government has gradually moved towards a broader-based tax structure, through the introduction of the Goods and Services Tax (GST).

Theoretically, a consumption tax system is preferred over an income tax system because the latter distorts decisions between future consumption (savings) and current consumption, whereas the former has a neutral effect.

To preserve the economy's productive capacity and enhance its supply-side potential, it is imperative that savings and investments rates are kept high. To this end, taxation, in particular, consumption-based taxation, has a positive role to play.

## SPECIAL CORPORATE RATES

Activity	Per cent of Tax	Last Date of Amendment
Financial institution - Offshore ACU income	10%	1988
Offshore insurance business	10%	1991
Offshore gold transactions	10%	1993
Syndicated offshore credit and underwriting facilities	10%	1988
Offshore funds management	10%	1988
Financial futures market	0-10%	1993
Oil futures trading	10%	1993
Finance and treasury centres	10%	1991
Approved securities companies	10%	1988
Approved trustee companies	10%	1992
Members of commodity futures exchange	10%	1992

## **LIST OF TAX INCENTIVES FOR FINANCIAL ACTIVITIES**

### **Fund Management and Investment Banking**

Certain fund management, risk management and capital market activities will enjoy 5 per cent concessionary tax on incremental profits with effect from Y/A 1996.

The 5 per cent tax will apply to the increase in taxable income over the preceding qualifying year arising from the following activities:

- the managing of foreign investment funds of at least \$5 billion by Asian Currency Units and Approved Fund Managers;
- the underwriting, managing or placing of foreign securities by Asian Currency Units and Approved Securities Companies, if the taxable income from such activities exceeds \$10 million.
- the trading of foreign securities by Asian Currency Units and Approved Securities Companies, provided the taxable income from such activities exceeds \$10 million; and
- the trading of new futures and options contracts on SIMEX by its members for a period of up to five years from the commencement of trading of the new contract on SIMEX. Only the top 20 most active firms will qualify for the 5 per cent tax.

The scheme will be effective for five years and may be extended.

### **Unit Trust Incentives**

To encourage the local unit trust industry, a concessionary taxation scheme will apply to the income and distributions of unit trusts with effect from Y/A 1996.

For a unit trust which is granted this incentive, all income (except Singapore dividends received) will no longer be taxed at the level of the unit trust. Distributions made out of such income will be treated as follows:

- Distributions to non-resident unit holders will be tax exempt.
- Distributions paid out of gains from disposal of securities to residents other than individuals and partnerships will be taxed.
- Only 10 per cent distributions paid out of gains from the disposal of securities to resident individuals and partnerships will be taxed. The remaining 90 per cent will be tax exempt.
- Distributions of other income such as interest and foreign dividends to resident unit holders will be taxed.

Taxable distributions will be subject to withholding tax at the prevailing corporate rate but unit holders will be able to claim a credit for tax withheld.

## **Chapter 11**

### **TAXATION OF FINANCIAL ASSETS IN SRI LANKA**

**by**

***Rupa Dheerasinghe***

#### **I. Taxation in Sri Lanka**

##### **1.1 Historical Background**

Fiscal policy has played an important role in Sri Lanka's economic policies and development strategies which have been adopted by successive governments since independence in 1948. Until 1960's policy makers placed their thrust on market mechanism and fiscal policy has been focused in line with macro-economic objectives of economic growth, stability and welfare. Private sector played a vital role in the economy while the government involvement was limited to provision of social services, infrastructure development and public administration. During this period, revenue raising measures were confined to selected areas such as excise taxes on liquor, tobacco and non-tax revenue etc. While income taxes were used for resources allocation purposes.

Since 1960's until mid 1970's priority was shifted from growth oriented objectives to income distributional and welfare objectives with the provision of general welfare services such as education, health and community development programmes. During this period policy emphasis was to reducing income disparities in the economy while achieving a sufficient growth to absorb unemployment. The state sector participation in economic activities increased drastically extending its horizons from infrastructure development and social welfare to manufacturing, banking, construction and other commercial services. Hence, during this period fiscal policy objectives were mainly for income distribution, social welfare and stability. In addition to its primary objective of raising revenue for financing the government expenditure, the role of taxation was to achieve equity through redistribution of wealth and income, provide protection to domestic manufacturers and rise domestic savings. In view of distributional objectives income taxes were designed with higher tax rates and low exemption limits. The upper limit of tax rate was as high as 70 per cent while the exemption limit

was 6,000 per annum in 1976. Tax coverage was widened to include new areas such as taxes based on turnover for stability purposes. Import duties were used to protect domestic manufactures and discourage luxury consumption.

Following the economic liberalisation in 1977, emphasis was almost reversed and development strategy was changed from state controlled inward looking strategy to a more outward looking strategy by adopting a liberalised economic policy with reliance on market mechanism for achieving sustainable high economic growth. The fiscal policy objectives were re-oriented to create an environment conducive for increased private sector participation in economic activities and boosting private investment thereby to achieve rapid economic growth and development. In this context, fiscal policy objectives included, such purposes as resource mobilisation for development of infrastructure, allocation of more resources for education, health and other services to improve welfare standards and creation of a favorable climate for the private sector participation in economic activity. More recently the focus of fiscal policy has been on poverty alleviation as well. Hence the role of taxation in this era has been characterised with the objectives of resource mobilisation, reallocation of resources and economic growth. Direct taxes were heavily used for mobilization of resources thereby providing a large number of tax holidays and tax exemption to promote private sector investment and attract foreign investment. Import duties became the principle method of providing protection to domestic industry. Resource mobilisation through taxation was placed a heavy reliance with higher taxes on indirect taxes such as import duties, turnover taxes, excise taxes and defence levy. In the eventuality of continued reduction in taxes on income and wealth, indirect taxes have emerged as a major resource flow to the government contributing about 79 per cent to total tax revenues during the last 10 years. Total tax revenue accounted for 87.5 per cent of the government revenue during past decade.

From 1980 onwards, the stabilisation role of fiscal policy has also been apparent in the conduct of macro-economic policies in Sri Lanka. Following the liberalisation in 1977, the budget deficit escalated reaching a peak of 23.1 per cent of GDP in 1980. Borrowings from domestic banking system for financing the budget deficit increased to the highest level of 10.6 per cent of GDP. Together with very large public investment, these factors contributed to an excessive pressure on the general

price level threatening the macro economic stability and sustainability of the balance of payments.

A major stabilisation programme which was embarked in early 1980's emphasised on reducing the budget deficit through revenue raising and expenditure reducing measures. This adjustment programme enabled the Government to raise the current account surplus and reduce the overall budget deficit. Fiscal adjustments during the period were also conducive for lowering domestic borrowings for financing the deficit, while reducing the pressure on inflation and thereby releasing resources to the private sector. As a result, the budget deficit declined to 11 per cent of GDP in 1987.

However, with the high fiscal deficit that experienced in 1988, stabilisation objective of fiscal policy re-emerged with a major stabilisation adjustment programme launched in 1989 with the objective of achieving macro-economic stability through a sharp reduction of the fiscal deficit. In this context, taxation policies became more important in achieving stabilisation objectives and serving resource mobilisation purposes. The adjustment programmes attempted to revitalise the free market economic environment through the removal of price distortions while rationalising the country's tax structure by eliminating the multiplicity of tax bands with regard to import duties and turnover taxes, simplifying income taxes and gradually removing export taxes. Revenue augmenting measures were undertaken through consumption oriented taxes such as excise taxes on luxury and semi-luxury products. Keeping in line with the recommendations of the Taxation Commission of 1990, the Government has introduced a number of policy changes to create a simple and rational tax system with a view to providing a favourable tax regime in Sri Lanka.

## **1.2 Government Revenue**

The Government revenue increased continuously during the period 1986 - 1995 resulting in an annual average growth rate of 14.5 per cent reflecting the buoyant nature of revenue collection. The revenue/GDP ratio averaged around 20 per cent, while buoyancy co-efficient remained around unity during this period. Over the last 10 years, tax revenue accounted for 87.5 per cent of government revenue. In nominal terms tax revenue increased from Rs.31,272 million in 1986 to Rs.118,543 million in 1995, registering an average annual growth of 15

per cent. Tax revenue as a proportion of GDP has ranged between 16.2 per cent to 19.0 per cent averaging 17.8 per cent during 1986 - 1995. Non-tax revenue which consisted of interest income, profits from trading enterprises, Central Bank profit transfers, dividends, and fees and charges etc. accounted for 12.5 per cent of total revenue or 2.5 per cent of GDP during the period 1986 - 1995.

During the last 10 years Sri Lanka's tax system depended heavily on indirect taxes accounting for 79 per cent of the total tax revenue or nearly 70 per cent of the total government revenue. Indirect taxes which consisted mainly of taxes on domestic goods and services and import duties increased by an annual average growth of 15 per cent and accounted for 14 per cent of GDP. On the other hand taxes which have a direct bearing on incomes such as profits, dividends and capital gains etc. in relation to GDP averaged around 3.7 per cent of GDP during the past 10 year period.

### ***1.2.1 Taxes on Goods and Services***

The relative significance of taxes on domestic goods and services which consisted of turnover taxes, excise duties and defence levy increased continuously over the last decade particularly in the last 3 years. As a proportion of total tax revenue this source accounted for 60 per cent of tax revenue in 1995 in comparison to 47 per cent in 1986. On average, taxes on goods and services accounted for 50 per cent of total tax revenue or 8.9 per cent of GDP over the last decade.

#### ***Turnover Taxes***

The turnover taxes which came into effect from 1964 was initially levied on the domestic production and distribution of goods. In 1968 turnover tax base was broadened by the inclusion of services and subsequently it was extended to cover imports in 1981. The introduction of turnover tax on imports was aimed at correction of the discrimination against domestic goods. In the case of domestic goods and services the tax is levied on the turnover while in the case of imports the tax liability is computed on a valuation based on the CIF plus import duty if any and a profit margin. Initially a profit margin of 10 per cent was added and it was increased to 25 per cent in 1993.

Table 11.1  
GOVERNMENT REVENUE  
(Average Indicators)

	As a percentage of Total Revenue			As a percentage of GDP			Growth (%)		
	1986-90	1991-95	1986-95	1986-90	1991-95	1986-95	1986-90	1991-95	1986-95
<b>Tax revenue</b>	<b>86.3</b>	<b>88.8</b>	<b>87.6</b>	<b>17.9</b>	<b>17.7</b>	<b>17.8</b>	<b>16.7</b>	<b>14.2</b>	<b>14.9</b>
Income Taxes	11.2	13.0	12.1	2.3	2.6	2.5	7.2	18.8	13.0
Personal	4.0	5.1	4.5	0.8	1.0	0.9	17.6	20.4	19.0
Corporate	7.2	7.9	7.6	1.5	1.6	1.5	3.5	18.4	10.9
Bank Tax	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Taxes on Property	3.9	4.0	3.9	0.8	0.8	0.8	50.7	11.0	30.8
Tax on Treasury bills held by Central Bank	1.6	1.7	1.7	0.3	0.3	0.3	2.3	0.4	1.4
Taxes on Domestic Goods and services	39.7	47.9	43.8	8.2	8.6	8.9	17.2	19.9	18.5
General sales and turnover tax	27.8	28.5	28.1	5.7	5.7	5.7	15.5	12.5	14.0
Manufacturing	8.9	9.0	8.9	1.8	1.8	1.8	14.6	7.9	11.3
Non Manufacturing	8.3	4.8	5.5	1.3	1.0	1.1	9.2	15.7	12.4
Imports	12.6	14.7	13.6	2.6	2.9	2.8	21.3	15.0	18.1
Excises	11.3	13.2	12.2	2.3	2.6	2.5	24.1	19.7	21.9
Liquor	3.9	4.2	4.1	0.8	0.8	0.8	19.9	19.1	19.5
Tobacco	7.3	7.3	7.3	1.5	1.5	1.5	26.8	11.6	19.2
Other	0.0	1.6	0.8	0.0	0.3	0.2	530.0	271.8	400.9
Defence Levy	0.0	6.1	3.1	0.0	1.2	0.6	0.0	34.1	17.1
Licence fees	0.7	0.1	0.4	0.1	0.0	0.1	13.5	134.5	74.0
Taxes on International Trade	29.9	22.1	26.0	6.2	4.4	5.3	12.7	4.9	8.8
Imports	25.9	21.6	23.8	5.4	4.3	4.8	16.5	7.8	12.2
Exports	4.0	0.5	2.3	0.8	0.1	0.5	3.4	-55.3	-25.9
Tea	2.2	0.2	1.2	0.5	0.0	0.3	12.7	-57.9	-22.6
of which: ad valorem	0.8	0.1	0.5	0.2	0.0	0.1	106.6	-40.3	33.2
Rubber	1.3	0.2	0.8	0.3	0.0	0.2	28.2	-52.9	-12.4
Coconut	0.3	0.1	0.2	0.1	0.0	0.0	-3.0	-44.1	-23.6
Other exports	0.2	0.0	0.1	0.0	0.0	0.0	-9.2	-39.8	-24.5
Receipts from FEECs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Non Tax Revenue</b>	<b>13.7</b>	<b>11.2</b>	<b>12.6</b>	<b>2.8</b>	<b>2.2</b>	<b>2.6</b>	<b>3.8</b>	<b>23.4</b>	<b>13.6</b>
Property Income	9.5	7.7	8.6	2.0	1.5	1.8	1.9	27.8	14.8
Surplus of Govt Trading Enterprises	2.5	1.0	1.7	0.5	0.2	0.4	36.0	-27.6	4.2
Rent	0.2	0.1	0.2	0.0	0.0	0.0	34.2	8.8	21.5
Interest	3.0	4.1	3.5	0.6	0.8	0.7	0.6	49.2	24.9
Profits and Dividends	0.4	1.4	0.9	0.1	0.3	0.2	-13.6	308.4	147.4
National Lottery	0.0	0.1	0.0	0.0	0.0	0.0	-43.2		
Central Bank Profit Transfers	3.5	1.0	2.2	0.7	0.2	0.5	0.0	0.0	0.0
Social Security Contributions	0.5	0.6	0.5	0.1	0.1	0.1	40.0	17.2	28.6
Non-Industrial Sales	1.1	1.0	1.1	0.2	0.2	0.2	51.2	6.3	28.7
Fees and Admin. Charges	1.0	1.2	1.1	0.2	0.2	0.2	20.1	20.4	20.2
Fines and Forfeitures	0.3	0.4	0.4	0.1	0.1	0.1	-7.5	30.0	11.3
Current Transfers	1.1	0.3	0.7	0.2	0.1	0.1	-7.2	26.6	9.7
Other	0.1	0.2	0.1	0.0	0.0	0.0	245.1	111.7	178.4
Net Profit from Adv. Accounts	0.3	0.1	0.2	0.1	0.0	0.0	198.9	-42.4	78.3
Petro. Special Levy	0.8	0.0	0.3	0.1	0.0	0.1	0.0	0.0	0.0
Non tax Capital revenue	0.2	0.0	0.1	0.0	0.0	0.0	289.8	59.6	174.7
<b>Total Revenue</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>20.7</b>	<b>20.0</b>	<b>20.3</b>	<b>14.0</b>	<b>15.0</b>	<b>14.5</b>

Source: Central Bank of Sri Lanka

Until recently Sri Lanka's tax structure was characterised by a multiplicity of rate bands. By 1990 the turnover tax rate bands had increased to 10 ranging from 1 per cent to 50 per cent. However, in mid 1992, the turnover tax system was restructured within a four band rate structure consisting of 5, 10, 15 and 20 per cent rate bands while in November 1992, it was further rationalised into a three band rate structure by eliminating the 15 per cent rate band.

In Sri Lanka, a range of consumer goods and services that are considered essential for mass consumption or those products or businesses related to the export sector are exempted from turnover taxes. Sensitive consumer items have been included in the lower rate bands of 5 and 10 per cent while consumer durables and non-essential consumer items such as liquor, tobacco, petrol etc. are liable at the highest rate of 20 per cent. Moreover, in order to reduce the cascading effect of turnover taxes, a full system of input credit for raw materials and partial credit on investment goods has also been introduced.

As a source of revenue, turnover taxes have assumed a dominant role in revenue collection. This source accounted for an average of 32 per cent of total tax revenue in the last decade. Importance of this source increased significantly with the inclusion of imports under the cover of turnover taxes in 1981. As a percentage of GDP, revenue from turnover taxes increased from 2.5 per cent in 1980 to 5.5 per cent in 1995. Turnover tax on imports emerged as a major revenue source contributing 53 per cent to the turnover tax collection in 1995. Manufacturing sector contributed 27 per cent while the balance 20 per cent was from the services sector.

The Taxation Commission Report of 1990 recommended the Good and Services Tax (GST) for Sri Lanka in place of the existing turnover tax considering the defects of the turnover tax system and the superiority of the GST system. The Government in principle has accepted the GST system.

### ***Excise Taxes***

Excise taxes which were introduced in 1912 have been historically levied on liquor and tobacco products. However, for the first time in mid November 1990, an Excise Tax Special Provision Act was introduced to extend the coverage of excise taxes to include selected do-

mestically manufactured and imported goods. Almost every year, excise taxes have been raised and coverage expanded to include nearly 250 items by 1995. As most of these items are subject to turnover tax and defence levy, cascading effect of the excise tax has raised prices sharply, encouraging illicit trade and smuggling and has discouraged local industries.

In order to simply excise taxes and mitigate the cascading effect of these taxes, a large number of items were removed or tax rates were reduced substantially. As a result since November 1995, excise taxes have been confined to a few products such as liquor, cigarettes, petrol, diesel and a few luxury consumer goods with a high potential yield.

As a source of revenue, excise taxes accounted for 16 per cent of the total tax revenue or 2.9 per cent of GDP in 1995. Excise taxes on liquor and tobacco, accounted for more than three fourth of revenue from all excise taxes put together.

### ***Defence Levy***

The defence levy with a broad tax base has been a successful instrument of collecting revenue ever since its introduction in January 1992. The defence levy which was imposed on the manufacturing and service sectors and imports except exports generated 12 per cent of total tax revenue in 1995. The rate of defence levy was increased gradually from 1 per cent in January 1992 to 4.5 per cent in June 1995. The defence levy was renamed as the National Security Levy and partial exemptions have been granted for imports of machinery and equipment by reducing the rate from 4.5 per cent to 2 per cent while a few services were fully exempted with effect from January 1996. Revenue from defence levy accounted for 2.2 per cent of GDP in 1995.

### ***1.2.2 International Trade Oriented Taxes***

International trade oriented taxes, consisted of both export and import duties which have at one time been a major revenue spinner in Sri Lanka gradually lost its significance in revenue mobilisation particularly after December, 1992 with the withdrawal of taxes on major exports. With a gradual elimination of export taxes, the share of international trade oriented taxes in total tax revenue declined from 52 per cent in 1980 to 28 per cent in 1992 and 21 per cent in 1995.

However, collection on account of import duties increased at an annual average of 12 per cent over the last decade accounting for 5 per cent of GDP. This source contributed more than a fourth of tax revenue over the period.

Sri Lanka's import duty structure has been considerably simplified with the adoption of the recommendations of the Presidential Tariff Commission in 1990. The duty rates which ranged from zero per cent to 500 per cent in 1977 have been reduced to four band tariff structure consisting of 10, 20, 35 and 50 per cent rates with a view to reducing the dispersion in the tariff structure and providing a unified effective rate of protection across industries. Maximum rate band has been reduced to 35 per cent and tariffs have also been rationalised by adopting three standard rate bands of 10, 20 and 35 per cent in February 1995. However, liquor, tobacco, passenger cars and certain luxury items were out of these bands on social and equity grounds. Under this tariff structure most essential consumer items are subject to lower tariff rate bands while intermediate and capital goods come under the middle rate bands. Consumer durables are taxed at the highest tariff rate. Moreover, a number of essential consumer items, such as wheat, raw materials and other inputs imported specifically for the manufacture of exports are exempted from import duties.

### **1.2.3 Income Taxes**

Income taxes, the major source of direct taxes in Sri Lanka provides only about 14 per cent of tax revenue accounting for about 2.5 per cent of GDP. In the case of income taxes, income from all sources, such as any trade, business, profession, employment, dividends, net capital gains, interests, discounts, royalties etc. are aggregated and is subject to a set of graduated rates after making allowances for the tax threshold income and other exemptions and deductions. Accordingly income from all sources except those specified as exempted income such as interest income from special accounts, income from public sector employment etc. is subject to normal tax schedule. However, due to some variations in the tax treatment of different sources of income, the effective rate of tax varies in a wide range.

Following the recommendations of Taxation Commission Report income taxes have also been simplified gradually in recent years. In the case of personal income taxes the maximum tax rate has been

reduced to 35 per cent in 1994. Threshold income has been raised to Rs.100,000 with a further tax credit of Rs.15,700 for employment income. Meanwhile, various qualifying payments have been rationalised. In the case of corporate taxes, the income tax rate of 50 per cent was gradually reduced to 35 per cent in 1994. While reducing tax rates the government has also provided various incentives to promote transactions of the share market, unit trusts, leasing etc. and a wide range of export oriented activities. Surcharge of 15 per cent on income which was imposed since 1989 has been withdrawn with effect from April 1, 1996.

#### **1.2.4 Other Taxes**

Stamp duties imposed on all instruments and documents which are required to be dully registered under the existing laws and occurrence of certain transactions within Sri Lanka, accounted for nearly 4.5 per cent of total tax revenue. At present, stamp duty on transactions are charged on the value of the transaction on an incremental basis. Tax revenue on Treasury bills held by the Central Bank varied from time to time depending on the variations in the stock of Treasury bills held by the Central Bank. Licence fees are visible among other taxes with newly introduced motor vehicle tax and luxury vehicle tax which was introduced in 1995. Save the Nation Contribution was the latest introduction to the tax system in Sri Lanka which came into effect in 1996. This tax is levied on public and private sector employees receiving monthly emoluments in excess of Rs 15,000.

## **II. Financial Assets in Sri Lanka**

In 1948, when the country gained the independence, Sri Lanka's banking and financial system was inadequately developed for meeting the needs of the independent developing economy. During this period, banking and financial system was dominated by commercial banks which were mainly branch offices of foreign banks. This sector included only two domestic commercial banks i.e. the Bank of Ceylon and Hatton Bank Ltd. The non monetary financial sector included two savings banks, two long term lending institutions and a few finance companies and insurance companies which were also largely foreign owned. At present Sri Lanka is enjoying a wide range of financial facilities rendered by a set of relatively sophisticated monetary and non-monetary financial institutions. At present, Sri Lanka's financial

system consists of 26 commercial banks with a branch net work of 932 branches. Of the 26 commercial banks 2 are state owned and 6 are domestic private banks. There is one Savings Bank with 96 branches and 17 Regional Rural Development Banks with 171 branches. As a result, banking density which was 20,375 persons per bank branch in 1986 has improved to 15,096 persons per branch in 1995. Other financial institutions include 5 long term lending institutions and specialised financial institutions such as finance companies, merchant banks, leasing companies, money brokers, credit co-operative societies, venture capital companies and unit trusts, etc. A summary of financial institutions in Sri Lanka is given in Table 11.2.

## **2.1 Deposits**

The developments of the institutional network of the financial and banking sector bring about a wide range of financial instruments that have expanded significantly in recent years. Most popular among these are demand deposits, saving deposits and time deposits. These three categories of deposits account for about 67 per cent of the total financial savings in the country. Fixed Deposits mainly accepted by commercial banks, National Savings Bank, various rural banks and finance companies play an important role in the country's financial system. Although relative importance of fixed deposits in the total financial assets declined from 40 per cent in 1985 to 33 per cent in 1994, reflecting a diversification of investor interest from traditional ways of investments to more innovative sources of investments due to availability of relatively a large number of various instruments than what was available ten years back in the country, savings on fixed deposits increased at an annual average growth rate of around 14.6 per cent over the last decade.

Comprehensive schemes of fixed deposits are now available with various commercial banks, National Savings Bank and other financial institutions, some of which are outlined in Appendix 11.1. At present maturities with 3, 6, 12 and 24 months are commonly accepted by the banks but various schemes such as special savings certificates of State Mortgage and Investment Bank, savings deposits of the National Savings Bank, etc. with higher maturities are also offered by some institutions. Generally higher interest rates are offered by some institutions, on large amounts with longer maturities. Premature withdrawals are permitted subject to the payment of a lower rate of interest. At the

maturity these deposits can be re-invested by giving prior notice or standing orders. Options are available to receive interest monthly, annually, etc. or at the maturity. However, lower rates are generally paid when interest is collected on a periodical basis.

One of the noteworthy improvements in this category of investment is the introduction of Certificates of Deposits (CDs) with a view to attract black money into the financial system and thereby channeling these funds into investment purposes. CDs are issued to anonymous buyers and are freely transferable in the form of bearer bonds. Within a period of short term CDs became an acceptable collateral for bank advances. Interest on CDs are paid upfront while effective rates vary among financial institutions. In 1994, interest paid by commercial banks varied between 9 to 22 per cent while the rates paid to finance companies were in the range of 16 to 22 per cent. These deposits are usually issued by commercial banks and finance companies in denominations of Rs 100,000 with maturity periods of 6, 9 and 12 months but longer maturities are also available. The value of CDS held by commercial banks and finance companies was Rs 6,592 million as at end of 1994.

Recent trend is to introduce various schemes which in certain cases savings cum fixed deposits such as Dimuthu Putha, Pathum Vimana, Vanitha Vasana provide an opportunity to win prizes in the form of lottery draws for those who fulfill certain conditions such as making a deposit within a certain period or hold minimum amount over a specified period, etc.

### ***2.1.1 Savings Deposits***

Presently, savings deposits, which are mostly popular among small savers, account for more than fourth of the financial savings in the country. Commercial banks, NSB and various rural banks accept savings deposit schemes, under normal saving deposit. Customers can open their accounts with a small sum of money which can be withdrawn at any time. Interest on these deposits are usually lower than fixed deposits. Interest and other facilities available on these accounts vary from bank to bank. Traditionally interest on these accounts have been calculated based on a minimum balance maintained in a quarter but, this practice is now changed and some banks calculate interest on minimum monthly balance while others are based on daily balances.

Table 11.2

## COMPOSITION OF FINANCIAL INSTITUTIONS

Institutions	Year of Commencing Business	No. of institutions a/	Ownership	Major Activities
1. Central Bank	1950	1	Public Sector	Monetary Authority
2. Commercial Banks	Since 1841	26	Public/domestic Private/Foreign Branches	Deposit Accepting and lending facility
3. Deposit-Taking Institutions				
3.1 National Savings Bank b/	1972	1	Public Sector	Savings Mobilisation
3.2 Rural Banks	1964		Public Sector	Rural Banking
Co-operative Rural Banks				
Bank of Ceylon sub office at Agrarian Services Centre		19		
Thrift and Credit Co-operative Societies				
3.3 Regional Rural Development Banks (RRDBs)	1985	17	Public Sector	Rural Banking
3.4 Finance Companies c/	Pre-1950	24	Private Sector	Deposit Accepting and Hire Purchasing
4. Long-Term Lending Institutions				
4.1 State Mortgage and Investment Bank (SMIB)	1979	1	Public Sector	Lending for Housing
4.2 Development Finance Corporation of Ceylon (DFCC)	1956	1	Private and Public Sectors	Lending for Industrial Purposes
4.3 National Development Bank (NDB)	1979	1	Public Sector	Industry Project Finance Refinance and Equity Funding
4.4 Housing Development Financing Company (HDFC)	1984	1	Private and Public Sectors	Lending for Housing
4.5 National Housing Development Authority	1979	1	Private and Public Sectors	Lending for Housing
5. 5.1 Insurance Corporations and Companies	Pre-1950	6	Private and Public Sectors	Life and General Insurance
5.2 Employees' Provident Fund (EPF)	1958	1	Public Sector	Compulsory Contractual Savings
5.3 Employees' Trust Fund (ETF)	1981	1	Public Sector	Compulsory Contractual Savings
5.4 Sri Lanka Export Credit Insurance Corporation (SLECIC)	1979	1	Public Sector	Insurance

Table 11.2 (Cont'd)  
COMPOSITION OF FINANCIAL INSTITUTIONS

Institutions	Year of Commencing Business	No. of institutions (a)	Ownership	Major Activities
6. Other Specialized Finance Services				
6.1 Merchant Banks	1981	5	Private and Public Sectors	Advisory Services, Discounting and Leasing
6.2 Leasing	1980	3	Private Sector	Leasing
6.3 Foreign Currency Banking Units (FCBUs)	1979		Private Sector	Deposit Accepting and lending in Foreign Currencies
6.4 Money Brokers	1979	8	Private Sector	Money Market Activities
6.5 Unit Trusts	1991	4	Private Sector	Capital Market Activities
6.6 Colombo Stock Brokers Association	1904	1	Private Sector	Capital Market Activities
6.7 Colombo Stock Exchange Ltd. (CSE)	1985	1	Private Sector	Capital Market Activities
6.8 Securities and Exchange Commission (SEC)	1991	1	Public Sector	Control, Regulate and Supervision of Share Market Activities
6.9 Central Depository System	1991	1		Share trade clearing system
6.10 Venture Capital Companies	1983	7	Private and Public Sectors	Equity Investments

a/ As at 31st December 1995.

b/ Established by Amalgamating then existing savings institutions.

c/ Registered with the Central Bank.

Source: Central Bank of Sri Lanka.

Relatively its popularity of savings deposits increased over time mainly due to innovative features introduced by the NSB and commercial banks by ways of comprehensive schemes of savings deposits with different attractions. Those include:

- (a) Various attributes such as competitive interest rates, up front interest payments, flexibility of withdrawals, cheque issuing facilities and insurance risk cover with savings accounts, eligibility to a lottery draw, etc. to increase attractiveness of instruments;
- (b) Facilities like endowment schemes for education and dowries, pension plan for the self employed, special schemes linked with elderly persons such as HNB Parent Care Scheme, Senior Citizens Pilgrimage Account for religious groups, etc. to serve specific needs of the depositors;
- (c) Deposits like, premium savings bonds and gift vouchers, external deposit savings accounts for minors, school children pass books like Ran Kekulu Ginum which can be maintained with small sums to be affordable for lower income groups to broadbase scope of depositors while improving savings habits, among young and lower income groups;
- (d) Schemes of deposits cum loan schemes like Gurusettha for teachers, Ran Govi Upahara Program to provide credit facilities to farmers and deposits linked with government social welfare programmes such as 'Janasaviya' and 'Samurdi' to improve savings habits among under privileged and provide assistance to those economic activities; and,
- (e) Scheme for preserving anonymity of investors, etc.

In addition to widen the scope of the services, through the introduction of various characteristics to the deposit schemes:

- (a) Expansion of the branch network of commercial banks, NSB and rural banks;
- (b) Advertisement campaigns of these institutions;
- (c) Relative improvement in media and communication; and,

- (d) High literacy, etc. also contributed for strengthening the base for both savings and fixed deposits as financial instruments in recent years.

### **2.1.2 Demand Deposits**

Commercial banks accept demand deposits. Cheques can be drawn on these accounts but no interest is payable. Overdraft facilities are available for these deposit holders on the concert of the bank. However, relative importance of demand deposits dropped marginally in relation to other deposits over the last decade mainly due to the availability of more interest earning assets with higher liquidity.

## **2.2 Off-Shore Banking**

With a view to provide comprehensive banking facilities to the free trade/investment promotion zones and to promote off-shore banking services in Sri Lanka, limited off-shore banking activities were introduced in 1979. Commercial banks were permitted to engage in limited off-shore banking activities through Foreign Currency Banking Units (FCBUs). With this development, the Non-Resident Foreign Currency (NRFC) Accounts were introduced with an attractive concession package as a new money market instrument. The domestic transaction of NRFC account allowed commercial banks to accept deposits in foreign currency from Sri Lankans particularly from income earners abroad and at the end of 1995 deposits of residents in the FCBUs amounted to US\$ 659 million. Furthermore, Resident Foreign Currency Accounts (RFCA) which can be operated with maximum deposit of US\$ 500 are now available for both resident and non resident investors.

## **2.3 Contractual Savings**

Provident funds, pension funds and insurance institutions who are the major components of the contractual savings sector in the country holds a substantial amount of financial savings of the country. A common characteristic of these funds and schemes is that their members have to contribute fixed sums periodically on a compulsory basis to a central fund. The savings are not generally permitted to be withdrawn until the benefits are paid on fulfillment of their respective terms and conditions. Therefore, these funds are illiquid compared with savings in other financial institutions. Hence, these institutions

provide valuable sources of long-term funds which provide firm basis for the development of a long-term financial market and they are the major investors in the long-term financial assets particularly those issued by the Government. At present major contracted financial savings institutions in the country are Employees' Provident Fund (EPF), Employee' Trust Fund (ETF), insurance institutions and other provident and pension funds. The EPF collects 20 per cent of salary consisting of an employee's contribution of 8 per cent and an employer's contribution of 12 per cent per month. As at end 1995 the outstanding balance of the EPF was around Rs.81,500 million. The rate of interest paid on members balance as at end 1994 was 12.75 per cent per annum. At the end of 1995 the EPF operated 1,572,106 active accounts on behalf of their members.

All employers must contribute 3 per cent of each employee's monthly earnings to the ETF. At the end of 1995 about 1 million employees were beneficiaries of the scheme and total outstanding on members balance of the ETF was Rs 12,315 million. Total value of life funds of the 6 insurance companies operated at present in the country was Rs 8,598 million at end 1995. Total subscribers to life policies in force was 723,000. In 1995 insurance companies collected Rs 2,834 million of net premier from other general insurance activities which includes fire, accident, marine and motor insurance.

## **2.4 Government Securities**

Outstanding amount of government securities which includes Treasury Bills, Rupee Securities, Treasury Certificates of Deposits and Tax Reserve Certificates amounted to Rs 247,818 million at end 1995. Outstanding balances on government securities are given in Table 11.3.

### **2.4.1 Treasury Bills**

Treasury bills are issued as a means of obtaining funds to finance the Government cash flow requirement on a temporary basis which intend to cover seasonal shortfalls of revenue and also to meet unexpected expenditure. On the other, it provides an avenue for short term investable funds of commercial banks, corporate bodies, other institutions and individuals to invest their funds on a guilt-edged security.

The lowest denomination of Treasury bills is Rs.10,000/- and higher value bills are in multiples of Rs.10,000/- payable at par on maturity.

Treasury bills are issued at a discount value on the basis of a quoted interest rate and are negotiable instruments which can be transferred by endorsement.

Treasury bills were meant for short term borrowings where the maturity period is one year or less. Treasury bills were available for maturity periods of 3 months, 6 months and one year. In addition, short dated bills which were less than 3 months maturity were issued only to the Central Bank to sell in the Secondary Markets.

#### ***2.4.2 Rupee Securities***

Long term borrowings of the government are normally made in terms of the Registered Stock and Securities Ordinance No.7 of 1937. Borrowings can be in the form of:

- (i) Registered Stocks;
- (ii) Promissory Notes; and
- (iii) Bearer Bonds.

Rupee loans are the major source of long and medium term Government debt instruments in Sri Lanka. In late 1970s and early 1980s, Rupee securities were meant for longer periods than what they were in the recent past. For the first time in 1991 short term rupee securities with one year maturity were also issued to raise funds for financing the deficit. However, in recent years emphasis was more on medium term and short term instruments rather than on long term instruments. At present, Rupee loans are issued with 4-6 years optional maturities at interest rate of 14 per cent.

#### ***2.4.3 Defence Bonds***

Apart from Rupee securities, medium term debt instruments with 3 year maturity called 'Defence Bonds' were issued in 1990 in terms of Registered Stocks and Securities Ordinance. However, the outstanding balance was fully repaid in 1993 and no new issues were made thereafter.

#### ***2.4.4 Tax Reserve Certificates***

Other instrument available for medium and long term funds are Treasury Certificates of Deposits introduced in 1991. Tax Reserve Cer-

Table 11.3

## FINANCIAL ASSETS 1985-1995

Financial Assets	In Value Terms (Rs. Million)				As a Percentage of GDP			
	1985	1990	1994	1995	1985	1990	1994	1995
Currency held by public	9,816	22,120	38,906	42,198	6.05	6.87	6.72	6.38
Demand Deposits	8,946	17,477	31,355	33,019	5.51	5.43	5.41	4.99
Savings Deposits	15,813	40,539	101,218	116,756	9.74	12.60	17.48	17.64
Commercial Banks	11,155	27,184	73,221	87,072	6.87	6.45	12.64	13.15
National Savings Bank	3,701	9,527	19,967	20,942	2.28	2.96	3.45	3.16
Rural Banks	957	3,828	8,030	8,742	0.59	1.19	1.39	1.32
Fixed Deposits	37,819	58,093	119,807	148,140	23.29	18.05	20.89	22.38
Commercial Banks	22,838	35,751	78,464	101,654	14.06	11.11	13.55	15.36
National Savings Bank	9,480	13,543	33,325	36,746	5.84	4.21	5.75	5.55
Rural Banks	131	522	1,230	1,513	0.08	0.16	0.21	0.23
Financial Companies	5,370	8,277	6,788	8,227	3.31	2.57	1.17	1.24
Contractual Savings	21,159	55,889	97,834	107,815	13.03	17.37	16.89	16.29
Employees' Provident Fund	14,722	40,485	75,731	81,500	9.07	12.58	13.08	12.31
Employees' Trust Fund	1,475	4,835	9,969	12,315	0.91	1.50	1.72	1.86
Insurance Companies	3,145	6,055	6,749	8,598	1.94	1.88	1.17	1.30
Private Provident Funds	1,817	4,514	5,385	5,402	1.12	1.40	0.93	0.82
<b>Total Financial Savings</b>	<b>93,553</b>	<b>194,118</b>	<b>389,120</b>	<b>447,928</b>	<b>57.62</b>	<b>60.33</b>	<b>67.19</b>	<b>67.67</b>
Government Financial Instruments	58,859	127,293	212,514	247,818	36.25	39.56	36.69	37.44
By Debt Instruments								
Rupee Securities *	36,570	54,676	113,466	133,840	22.52	16.99	19.59	20.22
Treasury Bills	22,280	67,968	98,896	113,771	13.72	21.12	17.08	17.19
Treasury Certificates of Deposits	-	109	145	200	0.00	0.03	0.03	0.03
National Defence Bonds	-	4,532	-	-	-	1.41	-	-
Tax Reserve Certificates	9	8	7	7	0.01	0.00	-	-
By Investors	86,091	200,995	212,514	247,818	53.02	62.46	36.69	37.44
Bank	21,522	41,847	21,589	24,829	13.25	13.00	3.73	3.75
Central Bank	20,666	30,672	5,099	12,525	12.73	9.53	0.88	1.89
Commercial Banks	856	11,175	16,490	12,304	0.53	3.47	2.85	1.86
Non-Bank	64,569	159,148	190,925	222,989	39.77	49.46	32.87	33.69
National Savings Bank	12,949	24,089	46,407	48,406	7.97	7.49	5.01	7.31
Employees' Provident Fund	13,616	36,851	79,475	95,000	8.39	11.45	13.72	14.35
Other	38,004	98,208	65,043	79,583	23.41	30.52	11.23	12.02

Memo: GDP at Market Prices 162,375 321,784 578,147 661,902

\* Exclusive of Rs 24,088 million of long term bonds issued for restructuring Bank of Ceylon and Peoples' Bank.

Source: Central Bank of Sri Lanka  
Various issues of the Annual Report.

tificates were introduced in terms of the Tax Reserve Certificate Act No.22 of 1957 and issued for the purpose of facilitating payments due as income tax or profit tax. The holder is entitled to surrender the certificate to the Commissioner General of Inland Revenue with a surrender value of the certificate to pay income tax or estate duty. Interest rate of 15 per cent was paid on the face value of the certificate.

#### ***2.4.5 Treasury Certificate of Deposits***

Treasury Certificates of Deposits which were issued in terms of Treasury Certificate of Deposit Act No.9 of 1989 provides an avenue for investing black money as any person without disclosing identity can buy or transfer the ownership merely by handing over the documents. Main features of Government debt instruments are summarised in Appendix Table 11.I.

Of the total outstanding domestic debt instruments, the relative share of Treasury bills increased while that of Rupee securities decreased up until 1992 but the relative significance of Rupee securities in domestic debt stock increased considerably during the last three years. However, the outstanding amounts of both sources increased in absolute values throughout the period 1986-1995. Debt outstanding on account of Rupee securities increased at an annual average rate of 14 per cent from Rs.36,570 million in 1985 to Rs.133,840 million in 1995, while that of Treasury bills increased by 18 per cent annually from Rs.22,280 million in 1985 to Rs.113,771 million in 1995. Treasury Certificate of deposits and Tax Reserve Certificates stood at Rs.200 million and Rs.7 million respectively as at end of 1994. The two main debt instruments, i.e. Treasury bills and Rupee Securities accounted for approximately 95 per cent of the total domestic debt instruments.

A favourable change in the structure of public debt instruments in recent years was the diversion of domestic debt holdings from the banking sector (mainly Central Bank) to the non-bank private sector while encouraging captive sources to be more competitive in maintaining their portfolio assets. However, until very recent past, experience was somewhat contrary to the expectations. Of the total outstanding debt in late 1980s, nearly 40 per cent was held by the banking sector and averaged around 10 per cent in 1995. The sharp increase in government debt holdings by the banking sector in late 1980's was largely attributable to the Central Bank's purchases of Treasury bills in

the primary market. Until 1992, more than 50 per cent of the Treasury bills were held by the Central Bank. The general pattern has been that Central Bank has purchased the part of Treasury bill issues un-subscribed by the public. The guiding principle behind the Central Bank purchasing Treasury bills is to provide financial accommodation to the Government. However, in early 1990s the response from the non-bank public in investing on Treasury bills was not very encouraging as the return on Treasury bills was lower than the return on investment in alternative financial assets and the buyers in the primary market usually had to hold the bills until maturity as there was no secondary market. In 1985, the Treasury bill rate was as low as 11-12 per cent whereas commercial banks offered 12-18 per cent on their one year deposits. Transactions in the secondary market commenced on April 21, 1981 whereby the Central Bank offered Treasury bills held in its own portfolio to the general public mainly through commercial banks. Development of the Secondary Treasury bill market, introduction of tap system, broad basing of the Treasury bill market through branches of the Central Bank and introduction of Accredited Primary Dealers System in July, 1992 resulted in a significant improvement in the Treasury bill market and considerable diversification of Treasury bill holdings from the banking sector to non-bank private sector. As a result, a sharp decline in public debt holdings by the banking sector can be observed since 1992. The other factor which contributed to this development was the sharp increase of yield rates of Treasury bills and this attracted more private sector investment on Treasury bills. In general, the yield rate of Treasury bills with three month maturity which was around 13 per cent in early 1988 fluctuated between 13.24 - 19.91 per cent in 1995.

The non-bank private sector as a source of funds for financing the government budget was less significant until 1982. Utilisation of funds through banking sector for financing the budget deficit continued to decline since 1982 and became insignificant after 1989 implying that fiscal policy has been non-inflationary in those years. In contrary, the Government had to resort bank financing in 1994 and 1995. However, funds required to finance an increasing budget deficit were obtained from the private sector. The non-bank sources consisting of the various provident funds, savings institutions, insurance companies, departmental and other official funds and individuals accounted for more than 90 per cent of the ultimate holdings of the government debt instruments in 1995.

The National Savings Bank (NSB) and Employee's Provident Fund (EPF), (two principal captive sources became more significant as market credit suppliers and at present these sources hold more than 50 per cent of the total domestic debt instruments. The largest single subscriber to rupee loan programme, the EPF holds more than 96 per cent of the outstanding rupee loans. The contribution of the NSB to rupee securities diminished relatively previous years following the Government decision to provide freedom to NSB to take its own investment decisions in 1991. As Treasury bills became a more profitable source of alternative investment, contributions of the NSB to Treasury Bills increased significantly since 1990.

The payment of maturing obligations and their replacement by re-issue is a weekly operation particularly in the Treasury bill market. New issues are sold through an auction system to Primary Dealers. The Primary Dealer System which was introduced in 1992 was formalised in 1994 in order to activate and develop the primary and secondary market for Treasury bills. Twenty two Primary Dealers (PDs) who include sixteen commercial banks, four money broking firms, one management company of a Unit Trust and one investment management company operated in 1995. Primary Dealers were allowed to bid at weekly auctions and the public have to purchase Treasury bills from these dealers. However, non-competitive bids from captive sources such as the NSB, EPF and other approved funds are also accepted at the weighted average rates of respective maturity periods. At present, a programme to phase out non-competitive bidding by captive investors is in progress.

## **2.5 Capital Market**

A share market was first set up in Sri Lanka on a very limited scale through the Share Brokers Association (SBA) formed in 1894. However the development in securities market, more specifically share market grew at a very slow pace. In 1982, Colombo Stock Exchange Limited (CSEL) was incorporated with the objective of setting up a formal Stock Exchange in Colombo. Even though there were more than 17,000 limited liability companies in Sri Lanka only a negligible number amounting to 169 has been listed in the CSE as at December 1985. Over the past decade, total number of listed companies increased to 226 while the market capitalization increased from Rs 10,030 million as at end 1985 to Rs 106,869 million as at end 1995. The total market

capitalization of the CSE constitutes about 16 per cent of GDP. In 1995 total number of shares issued was 69 million and a number of shares traded was 320 million.

## **2.6 Debentures**

Issues of debentures for mobilizing capital funds is limited mainly to long-term lending institutions such as the Development Finance Corporation of Sri Lanka (DFCC), the State Mortgage and Investment Bank (SMIB) and National Housing Development Authority, etc. (NHDA), etc. A sum of Rs 2,471 million and Rs 500 million were raised by the DFCC and SMIB respectively in 1995 through issue of debentures for financing their lending activities.

## **2.7 Commercial Paper**

John Keels Holdings Ltd. and the Aitken Spence & Co. Ltd. introduced commercial paper, a new financial instrument to the money market in August, 1995. Commercial paper is an unsecured promissory note which is a negotiable security with short-term nature of 3, 6 or 9 months. It enables a corporate borrower to obtain funds at cheaper costs than other financial institutions free of collateral, with no intermediaries. Commercial papers were usually issued on a discount basis. Usually these are of high denomination value. For instance, the issue of John Keels was for Rs 250,000 as the minimum.

In developed financial markets rating agencies appraise and evaluate the companies issuing commercial papers. In the absence of rating agencies in Sri Lanka it will be a considerable task for a corporate to issue a commercial paper. Therefore, a corporate needs the backing from a recognized financial institution. In this issue Bank of Ceylon, a premier commercial bank played a backing role.

## **2.8 Treasury Bill Backed Securities**

Asset backed debt instrument named Treasury Bill Backed Securities was launched in 1994. These are securities whose issue is backed by Treasury Bill held by the issuer. The first issue of TBBs was for Rs.192 million and had a maturity of one year.

### **III. Taxation of Financial Assets in Sri Lanka**

The taxation of financial instruments in Sri Lanka varies by type of instrument. Apart from the application of direct taxes on all sources of income such as interest, dividends capital gains etc. generated through financial instruments, financial transactions are subject to number of indirect tax treatments, such as turnover taxes stamp duties, defence levy and transfer taxes.

#### **3.1 Income Tax on Financial Instruments**

In general income from all sources is aggregated and taxed under the global income taxation system. Accordingly income from all sources except those specified as exempt income is subject to normal tax schedule. Accordingly interest income from bank deposits either in commercial banks or NSB, investments on government securities and from any other financial instrument is taken as a part of aggregate income and subject to normal income taxes in Sri Lanka. However, a special tax rates of 15 per cent is applied to approved long term deposits such as NSB Endowment Scheme, Bank of Ceylon National Endowment Scheme (minor and adults) and Bank of Ceylon Children's' Savings Scheme. Nevertheless, a 10 per cent tax is levied on the investment income of all pensions and provident funds gratuity funds. Interest payable to any individual, on Ceylon Savings Certificates, any National Savings Certificate purchased before November 15, 1978 is exempted from income tax. Tax Reserve Certificates are also exempted.

In order to encourage inward remittances and retain these in the form of foreign currencies, interest on Non-Resident Foreign Currency Accounts, special accounts held by commercial banks and Resident Foreign Currency Accounts are exempted from income tax. The interest income arising from investments in FCBUs is also exempted from income tax. Under the Local Treasury Bill Ordinance, non-residents are exempt from income tax for any sum received as profit or income from Treasury bills. However, interest on investment in Government Rupee Securities by non-residents are liable to income tax at 33 1/3 per cent.

Under normal circumstance, income received by persons is subject to a set of progressive rates with maximum rate of 35 per cent. Income

from financial instruments received by a company or other corporations and partnerships which are also subject to tax as other sources of income are taxed at single rate of 35 per cent.

The surcharge of 15 per cent which had been levied on both personal and corporate income taxes since 1989 was withdrawn with effect from April 1, 1996.

With a view to improve tax compliance, banks and financial institutions are requested to withhold income tax of 15 per cent on the interest payable on any deposits held by any individual or corporate with these institutions. This law is applied to bonds issued by commercial banks or financial institutions, interest on Government Securities as well. Withholding tax of 10 per cent is applied on interest earned on the investment in all provident and pension funds. Interest payable to non-resident persons on debentures, mortgage loans, deposits and rent, ground rent and royalty are subject to withholding tax of 33 1/3 per cent. However, all exempted investment under the Income Tax, law, interest on post office savings accounts and certificate of deposits where the depositor is an anonymous person are exempted from withholding tax. Withholding tax on Treasury bills is also withdrawn with effect from June 1, 1994.

### **3.1.1 Capital Gains**

Capital gains are generally treated as part of income, but they are tax differently depending on the source of capital gains. For instance, capital gains arising from the change in ownership of property is taxed according to the period of ownership. If the period of ownership is less than 2 years of the acquisition it is taxed at normal income whereas for a period of ownership between 2-25 years tax rates are ranged from 25 per cent to 5 per cent. In the case of capital gains arising from other sources such as redemption of shares, debenture, surrender or relinquishment of a right etc. the normal tax schedule is applicable subject to a maximum tax rate of 25 per cent.

It is important to note that with a view to encourage equity investment and widen the ownership of shares thereby promoting share market transactions, several tax exemption provisions were made particularly after 1989. Among other incentives capital gains arising from sale of shares in quoted companies is exempted from capital

gains tax with effect from August 26, 1992. Prior to that date, if the period of holding is less than one year capital gains was taxed at 20 per cent. Further, in April 1, 1996, capital gains arising from all transactions in the stock exchange have been exempted from income tax. With a view to develop the activities and other innovations of financial institutions:

- (a) Capital gains arising from sales of any share/stock held by a venture capital company, unit trust mutual fund which is granted tax holiday status; and,
- (b) sale of any unit in any unit trust or mutual fund after one year from the date of requisition of such units are also exempted from capital gains tax. The capital gains arising in Sri Lanka to non-residents are liable for tax but exemptions are provided in same double tax agreements. In order to improve the secondary market operations capital gains arising from the sale of any Treasury bills in the secondary market were also withdrawn with effect from August 08, 1993.

### **3.1.2 Dividends**

Dividends distributed by a company to its share holders in the form of money, shares in any other company or debentures in that company or in any other company is treated as part of income are taxed under normal tax schedule. However, dividends will not include a bonus share or a payment in reduction of capital and dividend paid by companies under Board of Investment (BOI) Law to non-residents or any person during the period of tax holdings. All dividends liable for tax are subject to 15 per cent withholding tax.

### **3.2 Stamp Duties**

Apart from these direct taxes, certain financial transactions are subject to various indirect taxes. Since November 8, 1995, the stamp duty of Rs.2.00 now charged on all receipts in excess of Rs.100.00 was revised and a new duty schedule which varies with value of the transaction was introduced. However, stamp duty on withdrawals remained at Rs.2.00 per transaction. In addition, stamp duty is levied on a wide spectrum of financial instruments such as certificate of deposits, cheques, teller machine transactions and credit cards, trav-

elers cheques, letters of credit, bills of exchange, drafts, promissory notes, share certificates and share transactions.

In an attempt to popularise bonds and debt securities traded in the capital market such transactions made through the stock exchange has been exempted with effect from April 1, 1996. To encourage the holdings of CDs with longer maturities, stamp duty on CDs with a maturity of more than 4 years are exempted with effect from April 1, 1994.

### **3.3 Transfer Tax**

Transfer Tax Law in Sri Lanka affects financial instruments. According to this law, a transfer of ownership of any property such as land, shares, etc. in Sri Lanka to a person who is not a citizen of Sri Lanka is subject to a tax of 100 per cent of the value.

This form of transfer tax discourages portfolio investment in Sri Lanka by foreign investors. However, in view of promoting foreign of capital investments in the country, tax on transfer of:

- (a) Shares through stock exchange from a non-citizen to another;
- (b) Shares held by a non-national director of a company to his successor; and,
- (c) Shares of a company to a commercial bank for provision of a loan overdraft or any other financial facility given by the bank as a security or a mortgage of such share are exempted. Furthermore, the transfer of shares between residents and non-residents is permitted free of tax upto 40 per cent of the issued capital of a company with effect from June 5, 1990.

### **3.4 Taxes on Financial Institutions**

Defence levy and turnover tax are imposed on interest fees and any other charges derived in respect of loans, advances, credit cards or any other service rendered by banks and financial institutions.

The defence levy with single rate of tax has been increased gradually from 1 per cent in January 1992 to 4.5 per cent in June 1995.

However, the turnover tax rates varies by the type of businesses carried out by the institution. This tax is also imposed on interest and other charges derived by banks and institutions except receipts from operation of FCBUs. Accordingly, turnover tax rate of 2 per cent is imposed on National Development Bank and Development Finance Corporation of Sri Lanka while a rate of 4 per cent is imposed on businesses of financiers or money lenders, other than banks, pawn brokers and leasing companies. Leasing companies are liable for 5 per cent tax on gross lease rental received or receivable for each quarter. Total receipts excluding premium insurance recovered or recoverable in respect of life insurance is also subject at the rate of 5 per cent. Share market transactions are taxed at 6 per cent on brokerage while investment companies and unit trusts are liable to pay turnover tax of 1 per cent on proceeds from sale of shares of the company. In addition, dealers involved in buying and selling shares are subject to tax under normal tax schedule. Profit and income of a company engaged in the businesses of life insurance is subject to income tax. Twenty per cent tax is levied on mutual companies involved in business of insurance while other companies doing such businesses has to pay 35 per cent under normal tax schedule.

#### **IV. Impact of Taxation on Financial Assets in Sri Lanka**

##### **4.1 Revenue and Fiscal Policy Implications**

A basic measures that can be adopted by the authorities to promote financial instruments is the fiscal policy. Fiscal policy can be used to promote the operations in financial markets and encourage innovations of financial instruments and develop them through taxation policies by providing tax incentives to direct the activities towards desired ends and imposing taxes on other areas where curtailment is warranted. The arguments for taxation of financial assets are related to resource mobilization and distribution aspects. On the other hand, these instruments facilitate mobilization of funds and liquidity for financial markets while promoting savings and mobility of capital which are basic requisites of rapid economic growth.

Fiscal operations in Sri Lanka in the past have caused considerable impediments to the development of the financial sector. The overall budget deficit which was at its highest of 23 per cent of GDP in 1980 and averaged around 10.7 per cent during 1986-1995 exerted heavy

pressure on domestic resources. Domestic borrowings used for financing the budget deficit averaged around 5.6 per cent of GDP during the same period.

On average, the Government mobilized about 50 per cent of its domestic borrowing requirement from either captive sources such as NSB and EPF or from the Central Bank. Although Central Bank's contribution to Treasury bills declined gradually since 1989, until then more than 80 per cent of the Treasury bills were held by the Central Bank. Nearly 80 per cent of the Rupee loans were with EPF and NSB. Although, in recent years, resource mobilization was more market oriented relative to early years, even at present NSB and EPF hold nearly 50 per cent of the domestic debt. These captive sources had to subscribe to Rupee securities irrespective of the interest rate offered. The interest rates on Rupee loans are determined administratively and not determined by market forces. In the case of NSB, a subsidy was given by the Government to recoup any losses due to investment at low rates in Government securities. After 1989, freedom was given to NSB to some extent to invest on their own to cut down interest subsidy. But most of their funds were absorbed by Treasury bills due to high interest rates offered in 1991 and 1992. EPF is still investing mostly in Rupee securities irrespective of low real interest rates. This can be seen in the past even when negative real interest rates were offered in 1990, EPF and NSB invested Rs 5,896 million and Rs 1,975 million on Rupee securities respectively. This was 95 per cent of the total funds raised through Rupee Securities. Hence, heavy domestic resource requirements necessitated by the fiscal policy which pre-empted prospective long term funds for financing cash requirements of the Government not only distorted the interest rate structure but also deprived the development of long term financial instruments on the other.

From the revenue point of view, total tax revenue in Sri Lanka averaged around 18 per cent of GDP during the 1986-1995 period. It is very difficult to differentiate income tax on interest income, turnover tax and defence levy on financial institutions etc due to non-availability of a detailed breakdown of revenue collection. However, the estimates based on limited information available showed that taxes on financial instruments and financial intermediaries contributed about 3 per cent to total tax collection from various sources while it accounted for approximately 0.5 per cent of GDP in 1994. Of this amount, more than 70 per cent or 0.35 per cent of GDP was raised through withholding tax

on interest income while another one tenth was from stamp duties. The balance was from income tax, turnover tax and defence levy on financial institutions and non-refundable tax on Central Bank holdings of Treasury bills.

Nearly fifty per cent of the total stamp duty collection was from issuance of Letters of Credit while receipts from revenue stamps was about 17 per cent of the total stamp duty collection. Other major sources of stamp duty collection on financial instruments were related to share transactions insurance policies and cheques. Irrespective of the large amount of interest earning deposits held by the public with commercial banks, NSB and other contractual funds which was about Rs.318,859 million, in 1994 withholding tax on interest income was as low as Rs.2,073 million largely due to relatively lower number of tax payers in the country. Out of 6.1 million of labour force, only about 0.11 million persons are registered with the Inland Revenue Department as tax payers. Interest earnings are exempted from tax on the basis of investors declaration as a non tax payer. In spite of the prevailing withholding tax rate of 15 per cent and an average interest rate around 10-17 per cent on most of the financial instruments, effective average withholding tax rate in 1994 was around 5 per cent largely due to the exemption of a large number of interest earners from the tax net due to high tax free threshold, employment tax credit, exemption of government employees from income tax etc.

As a whole, taxes on financial instruments do not contribute significantly to Government revenue, but affect the cost of financial transactions considerably. On the other hand taxation policies have also not been conducive for promoting of financial instruments. Banking and financial institutions which play an intermediary role in financial transactions are subject to numerous forms of taxes causing considerable distortions in financial transactions. Turnover taxes, stamp duties and defence levy on banking and financial transactions have considerable cascading effects as these transactions pass through several stages.

It is important to note that in recent years the Government has taken some policy measures to provide fiscal incentives to encourage the development of the financial sector. However, most of these fiscal incentives were biased towards the development of the capital market. Some of these measures includes:

- (a) Gradual removal of the capital gains tax, wealth tax and stamp duty on share transactions;
- (b) Revision of 100 per cent tax on transfer of shares involving foreign nationals subject to certain limitations;
- (c) Exemptions of share market transactions of venture capital, unit trusts, mutual funds etc. which are enjoying tax holidays from capital gains;
- (d) Gradual reduction of withholding tax on dividends from one third of the dividends to 15 per cent;
- (e) Relaxation of exchange control restrictions on share transactions of foreign investors; and
- (f) Provision of specific income tax reliefs to venture capital, unit trusts and mutual funds.

In addition to these incentives provided towards capital market development, the Government has taken several measures to achieve specific targets such as:

- (a) Removal of tax concessions on interest income from deposits held in NSB and budgetary subsidy to NSB with a view to provide competitive market environment with its competitors;
- (b) Removal of withholding tax on treasury bills and government securities, exemption of tax reserve certificates from income tax to improve the market orientation of Government securities and improve secondary market operations;
- (c) Provision of fiscal incentives to foreign currency banking units by exempting capital gains from income tax;
- (d) Exemption of special activities such as approved loan term deposits, savings certificates, etc. from income tax to improve the savings habits and popularise certain financial instruments;
- (e) Exemption of CDs with longer maturities from stamp duties; and

- (f) Gradual scale down of turnover taxes on banks and financial institutions to create a tax environment conducive for the development of the financial sector.

## **4.2 Savings Function**

This section of the paper attempts to examine the factors that determine the savings of the country with a priori consideration to the interest rate and tax treatment. Although the impact of taxes on financial instruments cannot be directly measured possible approximations will be used for the purpose of this exercise.

### **4.2.1 Methodology**

An attempt will be made to formulate a savings function for Sri Lanka using Engle Granger two step procedure which ensures the properties of the Error Correction Approach. The Error Correction Models (ECM) have been widely used particularly for modelling the demand for money, savings, consumption and wage determination in recent years. However, the Engle Granger (1987) two step estimation procedure is a recently evolved method of co-integration that provides an explicit answer to problems associated with modelling with non-stationary data series.

It has been observed that when time series are highly trended, even though they may be statistically independent, the regression equations of such series often give very high  $R^2$  but relatively low Durbin Watson Statistics indicating that the residuals are auto correlated. The reason for this is that trended series may be non-stationary and hence do not yield well behaved test statistics. The presence of trends in series which are non-stationary are not strictly in accordance with the underlying assumptions of the Ordinary Least Squares (OLS) estimation procedure.

The OLS procedure has an assumption that the errors are stationary white noise. Granger and Newbold (1974) consider the model,  $Y_t = a + bX_t + u_t$  where  $Y_t$  and  $X_t$  are trended and note that  $b = 0$ , implies that  $Y_t = u_t + a$ . Hence  $u_t$  has the same distribution as  $Y_t$  and is non-stationary, resulting in misleading values of  $R^2$ ,  $F$  and  $t$  statistics in an OLS regression of  $Y_t$  on  $X_t$ . Granger and Newbold show that if one ignores this problem and simply uses these statistics to test the coef-

ficients of a regression, the results will be significantly biased and misleading (see also Phillips, 1986). Their suggested approach to overcome the spurious regression problem is to difference the data series until stationary is ensured.

The main difficulty with the Granger and Newbold suggestion is that when differences are taken, the long run information in the data is lost (Pierce, 1977; Hendry, Pagan and Sargan, 1984). Therefore, the Error Correction Model (ECM) which encompasses the models with both levels and differenced data is compatible with long run equilibrium behaviour and is appropriate to handle such problems.

Following on from Granger and Newbold's work, the recently evolved idea of co-integration explains the failure of conventional tests and provides an explicit answer to the problem of modelling non-stationary series. Co-integration also allows models to be specified to capture long run relationships without regard for the dynamic structure of the relationships.

Engle and Granger (1987) showed that if a vector of variables is co-integrated then there exists a valid error correction representation of the data which is not liable to the problems of spurious regression. This result confirms the validity of the traditional ECM. Further, they propose the two step estimation procedure for specification and estimation of the ECM. In the following section, the Engle-Granger two step estimation procedure is used to model the saving function for Sri Lanka.

### ***The Engle-Granger Two Step Estimation Procedure***

There are a number of ways to estimate the coefficients of models involving integrated variables. A particular method which has been widely used in recent literature, and which we used in our work, is the Engle and Granger two step procedure which allows an explicit testing of co-integration and specification of the ECM.

The Engle-Granger two step procedure involves estimating the co-integrating vectors in the first step and in the second step lagged residuals from the co-integrating regression are entered into the ECM in place of levels terms. Both steps require only single equation OLS estimates.

(a) **First Step**

Before testing for the presence of a co-integrating relationship it is necessary to examine the properties of individual data series. If individual series are integrated in the same order, then the co-integration test is applied to the initial level of the regression.

The first practical solution to the problem of testing whether or not a variable is integrated was provided by Dickey (1976), Dickey and Fuller (1979, 1981) and Fuller (1976).

The Dickey Fuller test statistics is based on the regression -

$$\Delta X_t = -\phi X_{t-1} + e_t \quad \dots\dots\dots (3.1)$$

We have to test the hypothesis,

$$\begin{array}{ll} \text{Ho} & : \phi = 0 \\ \text{vs H1} & : \phi < 0 \end{array}$$

This can be tested using either the OLS estimate of  $\phi$  as the  $t$  statistic for  $\phi$  as the test statistic. In both cases the test statistics have non-standard distributions, but Fuller (1976, Table 8.5.1) tabulated critical values on the basis of Monte Carlo method.

One issue that needs to be considered is whether the series  $X_t$  has drift (Pagan and Wickens, 1989). If this is the case the Dickey-Fuller test is based on the following regression:

$$\Delta X_t = -\phi X_{t-1} + C + e_t \quad \dots\dots\dots (3.2)$$

and the distribution of test statistic based on (3.2) is different from that in equation (3.1) Fuller's (1976) Table 8.5.1 covers cases where both an intercept and trend term are included.

In this study we use the  $t$  statistic in our testing procedure. It should be noted that the tabulated critical values given by Fuller (1976) assume that  $e_t$  is independent and identically distributed, whereas it is much more likely that it will be auto-correlated, and this will affect the validity of the critical values as well as the power of the tests.

The ADF test is carried out by the OLS estimation of:

$$\Delta X_t = -\phi X_{t-1} + \sum_{i=1}^k B_i \Delta X_{t-i} + e_t \quad (3.3)$$

or

$$\Delta X_t = C - \phi X_{t-1} + \sum_{i=1}^k B_i \Delta X_{t-1} + e_t$$

To test the significance of the test statistic, Mackinnon critical values presented by MicroTsp are used.

If the series are integrated in the same order, then the next stage is to determine whether or not the set of integrated explanatory variables in the model is complete. If one or more integrated explanatory variables are omitted from the model, then the disturbance term will also be integrated. Therefore, it is necessary to test and ensure that there are no omitted variables from the model. A co-integrating vector exists for these series is applied to the first step regression. If the series are co-integrated, parameters of the co-integrating vector can be estimated. This regression will be called the co-integrating regression as it attempts to fit the long run or equilibrium relationship regardless of the dynamics. The co-integration regression can be written as:

$$Y_t = aX_t + C + u_t \quad (3.4)$$

To test whether the residuals  $u_t$  are  $I(0)$ , a number of co-integration tests which are based on OLS residuals of the co-integrating regression are available. The simplest test is the Co-integrating Regression Durbin Watson (CRDW) test proposed by Sargan and Bhargava (1983). CRDW test statistic is:

$$\sum_{t=2}^n (U_t - U_{t-1})^2 / \sum_{t=1}^n U_t^2 \quad (3.5)$$

where  $u_t$  is the OLS residuals from equation (3.4).

This is simply the standard DW statistic from (3.4) but we cannot use the standard DW table for this testing problem as our null hypothesis here is that the  $u_t$  is  $I(1)$ . The exact critical values for CRDW are obtained under a normality assumption of errors, and are reported in Sargan and Bhargava (1983). To reject  $H_0$ , the CRDW should be significantly greater than zero.

The other test statistics used for this purpose are the DF and ADF tests based on the residuals of the co-integrating regression. Mackinnon provides critical values for testing co-integration among up to six series.

As the residuals are estimated series and not directly observed, the critical values for the DF and ADF test used before will no longer be appropriate (Pagan and Wickens, 1989). However, on a set of Monte-Carlo experiments Engle and Granger (1987) found that the residual-based ADF test performed well and much better than the CRDW test which tended to over reject. Yoo (1986) has tabulated critical values for the ADF test that are appropriate for regression residuals. They are found to depend on the number of regressors; the greater the number of regressors, the less powerful is the test. The reject  $H_0$ , the DF and ADF statistics should be negative and significantly different from zero. In this analysis the critical values for these test statistics provided by MicroTSP are used.

## (b) **Second Step**

Having ensured that no integrated variables have been omitted the modelling process can proceed to the second stage of the Engle and Granger two step estimation procedure. If the estimated co-integrating equation is

$$\hat{Y}_t = \hat{\alpha} X_t + c \dots\dots\dots (3.6)$$

and if the residuals from equation (3.6) are

$$\hat{Z}_t = Y_t - \hat{Y}_t$$

then the residuals  $Z_t$  of the co-integrating regression which measures the dis-equilibrium are used in place of the level term in the ECM. If the co-integration test in the first step regression is passed, the  $Z_t$  will be  $I(0)$  and so this second step equation will involve only  $I(0)$  vari-

ables and therefore, standard test statistics and critical values can be used. If there are only two variables involved, the ECM in equation can be written in the form

$$\Delta Y_t = B_1 \Delta X_t + \lambda Z_{t-1} + C + e_t \dots\dots\dots (3.7)$$

As the second step of the model attempts to capture the short run fluctuations, equation (3.7) can be written in its general form using dynamics of the variables. The model becomes:

$$\Delta Y_t = \sum_{j=1}^n \sum_{k=0}^p B_{ijk} \Delta X_{jt-k} + \sum_{k=0}^p B_{2k} \Delta Y_{t-k-1} + \lambda Z_{t-1} + C + e_t \dots (3.8)$$

where  $n$  = number of explanatory variables in the model  
and  $p$  = number of lags used to represent the short run dynamics in the model.

The merits of using those residuals instead of using individual variables in the level terms is to minimize the least squares errors and to increase the convergence speed of the two step estimates to their true values. Engle and Granger stated that the advantage of this two step procedures is **“the dynamics do not need to be specified until the error correction structure has been estimated”** (1987 p. 260)

#### **4.2.2 Data**

In order to apply the methodology outlined, an attempt was made to formulate savings equations using time series data for Sri Lanka. The data used in this analysis are annual date for the period 1970 to 1994. This sample period was used for estimation while 1995 was used for post sample examination. Most of the data used here are obtained from various issues of Central Bank of Sri Lanka Annual Reports, Review of the Economy and Monthly Bulletins.

Owing to lack of detailed statistics most of the savings data were obtained from National Accounts Statistics as the difference between measurable aggregates. Net private transfers from abroad were obtained from Central Bank Balance of Payments data, while current account deficit/surplus of the Government budget was obtained from Public Finance data.

Data were transferred into natural logarithms and their definitions are given in Appendix Table 11.3.

As most of the series have trends in their levels it seemed reasonable to introduce a trend and a constant into equations. Consequently DF Statistics were estimated using equation 3.3 and results thus obtained are given in Appendix Table 11.4. These results suggest that none of the series are stationary in their levels. After first differences it was found that all time series yield stationarity at least at 5 per cent level of significance. Therefore, a conclusion was drawn that the series are  $I(1)$  and as such all the variables are suitable for use in the co-integration test.

#### **4.2.3 *Model Specification and Estimation of Co-integration Equations***

Under the Keynesian Hypothesis, current income is the basic determinant of consumption. Friedman's Permanent Income Hypothesis suggests that permanent income is of a more suitable aggregate than current income for determining the saving-income relationship. The Life Cycle Hypothesis (LCH) developed by Modigliani, Brumberg and Ando reveals that individuals make their consumption plans to achieve a smooth or an even level of consumption over their life time by accumulating enough savings during their working years to maintain consumption standards during retirement. The LCH implies that in an economy where population and income were constant there would be no aggregate net personal savings since the savings of the working people would be exactly matched by the deceiving of retired people.

However, in an economy with growing population and/or growing per-capita income, aggregate net personal savings is positive because there would be more young people than old, thus more saving in aggregate than deceiving. Thus, the aggregate savings rate is directly influenced by the age distribution of the population. Higher the working age population greater the savings. Hence, most commonly used variable to measure the impact of non-productive members of the society on savings is to introduce dependency ratio - those under 15 years of age and over 60 years of age as a percentage of working age population (15-60) as an explanatory variable. In such case higher the dependency ratio lower the savings in the country.

Similarly, a positive relationship exists between income growth and savings rate at the aggregate level. The higher the level of current per capita income, the larger will be the amount of saving necessary to maintain an individual consumption level during retirement. An increase in income will affect the present consumption but will also increase savings since the individual seeks to equalise consumption over their remaining life span. Or otherwise young savers become more affluent and numerous than older dis-savers, thereby raising aggregate savings.

However, empirical evidence on the sign and the size of the real interest rate coefficient is inconclusive. Since the work of Mckinnon and Shaw (1973) a large number of empirical studies have found support for the interest elasticity hypothesis. The classical school of thought would argue that the sign of the real interest rate co-efficient cannot be predetermined in view of income effect and substitution effect. On a situation of an increase in the interest rate, income effect leads to a decrease in savings as the amount of savings needed to achieve a desired level of income would now be smaller and substitution effect leads to an increase in savings as the relative price of present consumption rises resulting in lower present consumption and a higher amount of savings. Therefore, the sign of interest rate depends on the relative size of income and substitution effect.

Based on this theoretical framework, the long run equilibrium solution to savings function for Sri Lanka is defined as:

$$S_{it} = C + A_1LY_t + A_2kLR_{kt} + A_3DR_t + e_t \dots\dots\dots (3.9)$$

where  $Y_t$  is income and  
 $R_{kt}$  is kth interest rate and  
 $DR_t$  is dependency ratio.

Definitions for saving functions used here are -

Domestic Savings (GDS) = Investment - Net imports of goods and non-factor services

National Savings (GNS) = Domestic Savings + Net Factor Income from Abroad + Net Private Transfers from Abroad

Private Savings with commercial banks (FS) = Time and Savings deposits held by the public with commercial banks in both local and foreign currency and

Quasi Money (QM) = Time and savings deposits held by the public with commercial banks in local currency.

There is no question as to whether or not an interest rate variable should be included in a savings function. However, the question remains as to what rate of interest, i.e. long or short term, savings or term deposit rates, return on other financial assets etc. should be used?

Although the government bond yield was widely used in early studies, bond rates are more administratively determined than market oriented and bonds have constituted only a small portion of financial assets and so its yield became an insignificant determinant in later studies. Instead, Treasury bills have become increasingly significant and rates are more market determined. Therefore, the average yield on Treasury bills of three month duration in the primary market (TB) has been used as one of the alternative interest rates in this analysis.

The fact that a number of commercial bank interest rates have been in effect for the period used for this study means that it is not possible to decide on a single rate **a priori**. Therefore, a number of alternative interest rates were used including: commercial bank savings deposit rate (KBS), commercial bank deposit rate on 12 month fixed deposits (KBT), National savings Bank (NSB) savings deposit rate (NSBS) and NSB deposit rate on 12 month fixed deposits (NSBT).

Although our attempt here is to identify the impact of taxation of financial instruments there are problems associated with the calculation of after tax interest rate. One major problem is the difficulty of calculating the effective tax on the interest rate. This problem is due to the availability of a host of taxes levied on financial instruments and non-availability of adequate information on the actual collection on these instruments. On the other, as discussed in previous section the estimated effective tax component of country's financial instruments seems to be insignificant. However, savings and time deposits rates of commercial banks and national Savings Bank were adjusted for with-

holding tax rates that are applicable for these instruments over the period under review. However, more complicated nature of taxes on Treasury bills, precluded the after tax Treasury bill rate being used in our estimates.

Since 1977 Sri Lanka has adopted market oriented open economic policies, capital inflows may be an important determinant of national savings. Some economists have demonstrated that foreign capital are a complement resource for national savings but some argued that foreign capital and national savings are substitutable resources which can affect growth of savings adversely. On that basis, to see whether capital inflows have any role in determining national savings in Sri Lanka capital inflows (NCIF) is included in the model.

In addition, unemployment (UNEM) may reduce the ability to save and therefore, this variable is also introduced into the model. However, the non-availability of a time series of unemployment rate, and available unemployment rates are also based on different assumptions and obtained from surveys conducted with different objectives, the rate used here may have some estimation errors. To capture the influence of the development in financial sector, number of bank branches (BB) are also introduced.

As there was a significant change in the country's economic policies in late 1977, a dummy variable was introduced into the model to capture the effect on the trend. The dummy variable was defined as 0 and 1 for the years before 1977 and after 1977 respectively of the sample period.

Then the original equilibrium 3.9 becomes:

$$LS_{it} = C + A_1LY_t + A_2kLR_{kt} + A_3LDR_t + A_4LCCPI_6 \\ A_5LNICF_t + A_6LUNEM_t + A_7LBB_t + A_8D + e_i \dots\dots (3.10)$$

Real savings function forms

$$LRS_{it} = C + B_1LRY_t + B_2kLRR_{kt} + B_3LDR_t + B_4LNCIF + \\ B_5LUNEM_6 + B_6BB_6 + B_7D + e_i \dots\dots\dots (3.11)$$

However, as Mackinnon provides critical values for testing co-integration among up to six series, except income and interest rate

variables other variables were used alternatively for limiting the number of series.

#### **4.2.4 Co-integration Equation**

The equations were formulated for both savings functions using alternative variables, for income i.e. permanent income, disposable income, per capita real income and real economic growth. Per capita real income performed better in both savings functions as well as in determining financial savings and quasi money functions. However the co-efficient was large and seemed to be an overstatement of the situation. This may be due to the reason that per-capita real GNP used in the equations includes a large proportion of Government expenditure. As such, private sector disposable income was derived from Gross National Product by removing government consumption and investment was used. The private sector disposable income explained the savings behaviour by improving test statistics while providing more meaningful results.

The interest rates used in all the 4 equations, included commercial bank savings deposit rates (KBS) and time deposit rates (KBT), NSB saving deposit rates (NSBS) and time deposit rates (NSBT) and three month Treasury Bill rate (TB). Of these interest rates, KBT and NSBT were more representative for the medium term, while KBS, NSBS and TB were better fit for the short term. Although with some limitations, all 4 interest rates except TB were adjusted for tax and used alternatively. None of the interest rates performed well in both aggregate savings functions. However the interest rate that gave the best performance in the co-integration equations was the commercial bank time deposit rate (KBT). Equations were able to achieve significant test statistics, DF, CRDW, etc. when commercial bank time deposit rate was included in these equations. However, this too was not significant. In the quasi money function, commercial bank time deposit rates were found significant. When the foreign currency deposits were included in the Quasi Money function interest rate became insignificant. However none of the adjusted nominal interest rates for after taxation was significant in co-integration equations for aggregate savings functions or both nominal and real in financial savings which included both foreign currency deposits and Quasi Money.

Net capital inflows did not show any significance in determining savings functions for Sri Lanka. Unemployment rate, expansion in

bank branches and policy variable showed no significant results in co-integration equations for aggregate savings as well. Tax revenue is also not significant either in private savings functions or Quasi Money functions.

The variable representing inflation was Colombo Consumer Price Index (CCPI). This variable was insignificant in all equations. Therefore, instead of the presence of both real income variable and inflation in nominal saving functions, nominal disposable income was used. The model estimated for LGNS, LGDS, LFS and LQM with before tax, interest rate are given in equations 1, 2, 3 and 4 of the Table 11.4. For comparison purpose all the four equations were re-estimated with adjusted interest rates for taxation and are included in the equations 5, 6, 7 and 8 of the Table 11.4. All 8 equations were re-estimated using real variables instead of nominal variables and these models performed better than nominal equations. Results are given in Table 11.5.

In these models the DF and CRDW<sup>1</sup> statistics rejected the null hypothesis implying that the models are co-integrated and the estimated model had statistically significant coefficients with a priori expected signs.

The coefficients of income variable were significant and positive as expected. Results implied that real private income affects savings positively and significantly than the other. The signs of the coefficients of LKBT were positive implying that substitution effect is stronger than income effect. Although interest rate was insignificant in aggregate equations, the own interest rate has greater effect on Quasi Money than any other variable. Introduction of alternative interest rates, NSBT or TB did not improve the performance of this equation.

The dependency ratio was significant only in the Quasi Money equation. Presence of the policy variable in the aggregate savings functions gave a insignificant but positive signs for the long run.

In summary, the errors in these 8 equations seem to be stationary. Therefore, it can be concluded that variables used in all the equations are co-integrated.

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1. To reject the null hypothesis of no co-integration CRDW Test statistics for 3 variable case should exceed the critical values of 0.488 (1 per cent level) and 0.367 (5 per cent level) (Hall, 1986).

Table 11.4

**REGRESSION RESULTS**  
(Sample Period 1970-1994)

Dependent variable Independent variable	Co-integration Equations							
	Interest Rate Before Tax				Interest Rate After Tax			
	LGNS	LGDS	LFS	LQM	LGNS	LGDS	LFS	LQM
C	-2.1608 (-3.3124)	-1.8509 (-2.4479)	6.3769 (1.5938)	6.1283 (1.5168)	-2.1608 (-2.9723)	-1.5624 (-2.1112)	0.3327 (0.0748)	-1.3649 (-2.2904)
LKBT	0.1754 (1.0030)	0.1189 (0.6568)	0.3431 (3.4338)	0.4188 (4.1507)				
LAKBT					0.0045 (0.1008)	-0.0191 (-0.4223)	0.0557 (1.6567)	0.0735 (2.0697)
LPY	1.0156 (14.8191)	0.9763 (13.7541)	1.0774 (18.2866)	1.0075 (16.9352)	1.0205 (14.2336)	0.9719 (13.3172)	1.2149 (24.8856)	1.1748 (22.7739)
P	0.0055 (0.0227)	-0.1059 (-0.4232)			0.1578 (0.7687)	0.0418 (0.2003)		
LDR			-2.2793 (-2.7616)	-2.1027 (-2.5229)			-1.0847 (-1.1708)	-0.6197 (-0.6330)
<sup>2</sup> R	0.9744	0.9673	0.9904	0.9894	0.9732	0.9669	0.9868	0.9841
DF	-4.6871	-4.6377	-4.9628	-4.8752	-4.9361	-4.7921	4.7208	-4.9427
Critical Value (5%)	-4.6079	-4.6079	-4.6079	-4.6079	-4.6079	-4.6079	-4.1314	-5.0516
Critical Value (10%)	-4.1824	-4.1824	-4.1824	-4.1824	-4.1824	-4.1824	-3.7284	-4.6056
CRDW	1.1895	1.1964	1.2393	1.2549	1.2523	1.2217	0.9697	0.9213
Error Correction Model								
	DLGNS	DLGDS	DLFS	DLQM	DLGNS	DLGDS	DLGDS	DLQM
C	0.1091 (2.1760)	0.1102 (2.1578)	0.0090 (0.1092)	0.0035 (0.0452)	0.0945 (1.8304)	0.0955 (1.8971)	0.0602 (0.6487)	0.0610 (0.6618)
R(-1)	-0.7711 (-3.7157)	-0.7696 (-3.6104)	-0.7199 (-3.5755)	-0.7347 (-3.9132)	-0.7929 (-3.9336)	-0.8257 (-3.9983)	-0.4588 (-2.3947)	-0.4288 (-2.3589)
D(LGNS(-1))	0.3388 (1.7481)				0.4444 (2.2523)			
D(LGDS(-1))		0.2788 (1.4233)				0.3958 (2.0332)		
D(LFS(-1))			0.3224 (1.8634)				0.3953 (1.8335)	
D(LQM(-1))				0.3180 (1.8642)				0.3847 (1.7634)
D(LKBT)	-0.0017 (-0.0084)	-0.0128 (-0.0610)	0.0274 (0.2036)	0.0475 (0.3645)				
D(LAKBT)					-0.0371 (-1.1219)	-0.0683 (-1.9765)	0.0312 (1.1733)	0.0257 (0.9318)
D(LPY)			0.7312 (1.6125)	0.7425 (1.7201)			0.3786 (0.7794)	0.3608 (0.7344)
<sup>2</sup> R	0.4574	0.4347	0.4824	0.5269	0.4524	0.4750	0.3104	0.2965
DW(d)	2.2913	2.2313	2.1347	2.1009	2.3134	2.2523	2.2989	2.2879

Note: D is the MicroTSP difference operator  
MicroTSP statistical package is used for estimations  
t statistics are given in parenthesis

Table 11.5

**REGRESSION RESULTS**  
(Sample Period 1970-1994)

Dependent variable	Co-integration Equations							
	Interest Rate Before Tax				Interest Rate After Tax			
Independent variable	LRGNS	LRGDS	LRFS	LRQM	LRGNS	LRGDS	LRFS	LRQM
C	-2.0244 (-1.8230)	-1.2472 (-1.1079)	6.5823 (1.5327)	6.2843 (1.4799)	-1.7968 (-1.6014)	-0.9404 (-0.9323)	3.6203 (0.8869)	2.3057 (0.5537)
LRKBT	0.0199 (0.1746)	0.0027 (0.0233)	0.1685 (1.9745)	0.2467 (2.9240)				
LRAKBT					-0.0321 (-0.2828)	-0.0658 (-0.5774)	0.0972 (1.1520)	0.1698 (1.9731)
LRPY	1.0300 (3.6201)	0.8674 (3.0075)	1.5853 (14.9574)	1.5298 (14.5976)	0.9348 (3.0272)	0.7342 (2.3612)	1.6418 (12.4347)	1.6359 (12.1445)
P	0.1879 (0.7352)	0.0769 (0.2966)			0.2418 (0.9847)	0.1438 (0.5817)		
LDR			-2.5018 (-2.8371)	-2.3210 (-2.6619)			-1.9119 (-2.2689)	-1.5354 (-1.7861)
<sup>2</sup> R	0.8686	0.9798	0.9611	0.9564	0.8689	0.8029	0.9566	0.9482
DF	-4.8799	-4.7635	-5.0968	-5.0348	-4.8692	-4.7978	-4.7994	-4.9326
Critical Value (5%)	-4.6079	-4.6079	-4.6079	-4.6079	-4.6079	-4.6079	-4.6079	-4.6079
Critical Value (10%)	-4.1824	-4.1824	-4.1824	-4.1824	-4.1824	-4.1824	-4.1824	-4.1824
CRDW	1.2535	1.2445	1.2337	1.2597	1.2759	1.2548	1.1405	1.1380
Error Correction Model								
	DLRGNS	DLRGDS	DLRFS	DLRQM	DLRGNS	DLRGDS	DLRFS	DLRQM
C	0.0128 (0.2872)	0.0164 (0.3588)	0.0257 (0.5039)	0.0170 (0.3547)	0.0002 (0.0046)	-0.0092 (-0.2171)	0.0667 (1.3836)	0.0583 (1.2242)
R(-1)	-0.9139 (-4.0000)	-0.8886 (-3.7773)	-0.6501 (-3.2578)	-0.6972 (-3.7073)	-0.9555 (-4.5779)	-0.9949 (-4.5671)	-0.5177 (-3.1498)	-0.5343 (-3.3545)
D(LRGNS(-1))	0.6293 (2.8062)				0.6814 (3.3613)			
D(LRGDS(-1))		0.5248 (2.3465)				0.6366 (3.1204)		
D(LRFS(-1))			0.4459 (2.4410)				0.4842 (2.5911)	
D(LRQM(-1))				0.4469 (2.5861)				0.4902 (2.6370)
D(LRKBT)	-0.1134 (-0.5639)	-0.0764 (-0.3650)	0.0344 (0.0344)	-0.0279 (0.2057)				
D(LRAKBT)					-0.1957 (-1.3998)	-0.2931 (-1.9933)	0.1414 (1.3815)	0.1226 (1.1916)
D(LRPY)			0.4205 (0.7521)	0.4834 (0.9009)			0.0095 (0.0182)	0.0228 (0.0430)
<sup>2</sup> R	0.5022	0.4625	0.4791	0.5390	0.5292	0.5277	0.4723	0.4848
DW(d)	2.2908	2.3393	2.2316	2.2399	2.2709	2.2279	2.0549	2.0535

Note: D is the MicroTSP difference operator  
MicroTSP statistical package is used for estimations  
t statistics are given in parenthesis

#### 4.2.5 Error Correction Model

Having obtained a suitable specification of the co-integrating equation the analysis proceeded to the second step of the Granger-Engle two step procedure. Residues of the equation which measures the disequilibrium of LGNS, LGDS, LFS and LQM are estimated as  $ZSi_t$  and the lagged values of these residuals were included in the standard ECM. Using dynamic specification, the general form of the equation was formulated as:

$$LSi_t = A_0 + G_i ZSi_{t-1} + \sum_{j=0}^p B_j \Delta LSi_{t-1-j} + \sum_{j=0}^a C_j \Delta LY_{t-j} + \sum_{j=0}^n D_j \Delta LKBT_{t-j} + \sum_{j=0}^s E_j \Delta LDR_t + U_{ti}$$

Where  $i$  = LGNS, LGDS, LFS and LQM.

$P, Q, R$  and  $S$  = number of lags used to represent the short run dynamics in the model  
 $\Delta$  = First difference

On the basis of the 'General to Specific' search procedure, three basic equations were derived from the general model. The estimated saving functions are given in the Table 11.4 and Table 11.5.

An important result obtained from the dynamic model is that the error correcting terms ( $ZSi_{t-1}$ ) in all savings functions both in nominal and real terms are significant at 1 per cent level. Durbin Watson Statistics<sup>2</sup> in equations for Quasi Money and financial savings with adjusted interest rate provided evidence in favour of the hypothesis that the models were free of auto correlation. DW(T) statistics also sup-

2. Eventhough we used the Durbin-Watson statistics for testing first order auto-correlation of residuals, the DW test procedure was derived under the assumption of a non-stochastic X matrix which is violated by the presence of the lagged values of the dependent variable among the explanatory variables. Therefore, many text books suggest that the DW test is not appropriate for testing for the presence of auto correlation in such models. Durbin derived a h test which is a large sample (asymptotic) test for more general cases. However, Inder (1985) suggests that the DW test is valid for testing serial correlation in disturbances even if lagged dependent variables are included in the model.

ported this conclusion. However, the equation with before tax interest rate, DW(d) ratio exceeded 2 and DW(h) was negative. Therefore, it was worthwhile to test the null hypothesis against the alternative hypothesis of negative first order auto-correlation. As the computed values of (4-d) were higher than the respective critical values, it can be strongly concluded that all equations are free of auto correlation problems. In the ECM, for savings functions, low  $R^2$  values but significant DW statistics were found. It is not a real concern that the equations have low  $R^2$  as long as they constitute statistically significant and theoretically acceptable variables while providing uncorrelated errors.

### **4.3 The Analysis of Results**

The co-integrating equation together with dynamic specification of the ECM provided useful information for sensible economic interpretation of both long run and short run influences on the savings functions. The co-integrating equation provide situations for long run equilibrium while dynamics of the ECM explain the short run effect.

Of the two aggregate saving functions, real national savings performed well in explaining the saving behaviour of the country. Quasi Money equation fitted the data even better than the models for national and domestic savings as well as financial savings with commercial banks. Therefore, the analysis is based on national savings function and Quasi Money function given in Table 11.4.

#### **4.3.1 National Savings Function**

The long-run real income elasticities were positive and significant. These high income elasticities are compatible with previous empirical evidence that suggest positive and significant income elasticities are justifiable in developing countries. Previous studies (Weerasekara, 1993) which estimated saving functions provide a positive and significant real income effect on national savings in Sri Lanka.

The estimates rejected a priori assumption that the economic reforms has a significant and positive effect on the aggregate savings rate. However, the presence of policy variable improved the quality of the aggregate saving functions. Dependency ratio is negative as an expected priori but non-significant when included in the model.

When the interest rate was adjusted for taxation and included in the model, the equations were co-integrated at 5 per cent level and the coefficient for interest rate was found insignificant with a negative sign. The insignificant nature of the interest rate in the aggregated functions may be a result of (i) inappropriate adjustment made to the interest rate used in the analysis due to difficulties of identifying the tax component of the interest rate (ii). Although, withholding tax is levied on interest income of most deposits, a very small number of savers effectively pay it as most of them declare as they are not liable for this tax, (iii) The system in place for detecting tax evaders is not effective. This is also evident from the small amount of tax collected on financial assets and the small number of tax payers. (iv) Majority of the national and domestic savers constitute compulsory, contractual savers who are insensitive to the interest rate and taxes.

The models provide strong evidence for a positive relationship of income with savings. The model with after tax interest rate showed an income effect around 1 indicating that one per cent change in real private disposable income will increase aggregate savings by one percentage point in real savings. Although interest coefficients are positive in both equations they became negative when the adjustments were made for taxes. However as these coefficients are not significant and stable these results indicated that impact of interest rate in commercial bank deposits on aggregate savings is inconclusive.

As far as dynamic equations are concerned it was found that higher order lags of independent variables were not significant implying that they have no strong effect in the short run on aggregate savings. However the significance of lag dependent variables in the model suggest saving behaviour of the immediate past has some positive influence on present savings. This may be true because almost a half of the aggregate savings is contractual and is always related with the past agreements. Although income did not show a significant relationship in the short run it indicated a positive sign in the short run. It is interesting to note that although interest after tax was not significant it has a negative sign implying that there is tendency for reducing savings with the introduction of taxes on deposits immediately but people make adjustments in the long run.

Table 11.6

## LONG RUN ELASTICITIES OF THE MODELS

	Model with before tax interest rate		Model with after tax interest rate	
	LRGNS	LRGDS	LRGNS	LRGDS
Income	1.0300	0.8674	0.9348	0.7342
Interest rate	0.0199	0.0027	-0.0321	-0.0658
Policy variable	0.1879	0.0769	0.2418	0.1438

**4.3.2 Quasi Money Functions**

It is interesting to note that although interest rate is not significant in aggregate savings functions, it was significant in Quasi Money functions implying that own interest rate has a strong positive relationship with Quasi Money. Quasi Money which includes both savings and time deposits held by public, with commercial banks responded to interest rate both before and after tax. This positive relationship explains that people substitute their present consumption for future when the interest rate is higher or in other words when the opportunity cost of money or spending money for consumption is high, people tend to save more even if interest income is liable to tax. However the impact of after tax interest rate is lower than that of before tax. According to classical view, positive interest rate witnessed the substitution effect is stronger than income effect.

When foreign currency deposits were included in the model interest rate became insignificant. The reasons for this may be that

- (a) Foreign currency deposits are exempted from taxes;
- (b) Foreign currency accounts are not sensitive to interest rate offered but other reasons such as willingness to hold foreign currency for future use, exchange rate risk etc. However interest

**Table 11.7**

**LONG RUN ELASTICITIES OF THE MODELS**

	<b>Model with before tax interest rate</b>		<b>Model with after tax interest rate</b>	
	<b>LRFS</b>	<b>LRQM</b>	<b>LRFS</b>	<b>LRQM</b>
Income	1.5853	1.5298	1.6418	1.6359
Interest rate	0.1685	0.2467	0.0972	0.1698
Dependency ratio	-2.5018	-2.3210	-1.9119	-1.5354

elasticity was positive but lower than that of the Quasi Money function.

As in the aggregate savings function, income elasticity was positive and higher in equations for Quasi Money and financial savings with commercial banks.

Dependency ratio gave a negative and significant relationship with Quasi Money implying that higher the dependency ratio lower is the savings in the country. As commercial bank holding of public funds are more liquid assets, public hold these assets with transaction and security motives to spend whenever necessary. Therefore these funds are more sensitive to the interest rate. However as most of the deposit holders are either exempted from income tax or they claim as non-tax payers, these deposits are insensitive for taxes.

In the short run solution, coefficient for residuals was negative and significant. As in the aggregate savings functions, lagged dependent variable was positive and significant implying that the past behaviour of savings has impact on present savings. Private disposable income which represents the income levels was positive but not significant implying that although income has a strong influence in the long run it does not affect savings immediately. People take time to adjust for changes in income and invest in financial assets.

Although interest rate did not show a significant relationship in the short run it indicates a positive sign implying that in the case of Quasi Money taxation has no effect of discouraging investment even in a short run.

## **V. Conclusions and Policy Recommendations**

The classification of tax revenues is quite homogeneous in most SEACEN countries. In almost all the countries the classification of tax revenues is by income tax, import and export duty and taxes on goods and services. Except Sri Lanka, Nepal and Taiwan the other countries already use some form of Value Added Tax.

Total tax revenue as a percentage of Gross Domestic Product (GDP) varied from 7.23 per cent (Nepal) to 27.46 per cent (Malaysia). Income tax as a percentage of GDP varies from 0.70 per cent (Nepal) to 13.45 per cent (Malaysia). For Sri Lanka the corresponding percentages were 18 per cent and 2.6 per cent, respectively.

It was found that in many countries interest on deposits is taxed under global system of taxation (Korea, Nepal, Singapore, Sri Lanka and Thailand), while separate tax rates are applied by the other countries. As in Sri Lanka some other countries with global tax systems have withholding tax as well. Indonesia, Philippines and Sri Lanka have capital gains taxes while all SEACEN countries have some form of tax on dividends. One of the major differences of the Sri Lanka tax system as compared to other SEACEN countries is the imposition of indirect taxes such as turnover taxes, stamp duties, transfer tax and defence levy on financial instruments and institutions which ultimately raise the cost of funds while causing considerable distortions in financial transactions. Therefore, our taxation of financial assets is much more complicated than that in many other countries.

The general perception was that taxation has a negative impact on financial instruments. However it is difficult to derive their impact directly where interest income is taxed under global system of taxation. In countries where there are indirect taxes on financial assets and financial institutions measuring the impact of these taxes was found to be rather difficult. The existence of indirect taxes discourage the investors to some extent and the impact could not be quantified due to difficulties in identifying the effective rate of taxation.

In view of measuring the impact of taxation on financial instruments on saving behaviour of the country the unit root test, co-integration test and Error Correction Approach were applied to estimate savings functions for Sri Lanka.

It was found that the interest rate has a positive effect on national savings and this was particularly strong in more liquid assets such as savings and demand deposits. Interest rate is less responsive in national savings because it comprises a large part of contractual savings which are insensitive to interest rate.

After tax return on savings also has a positive impact specially on those liquid savings. But the size of the elasticity was smaller than before tax return. However there is no strong evidence that tax on financial assets discourages savings. Nevertheless, there are signs of negative implications although not significant in the short run.

It is interesting to note that interest rate or after tax return on financial savings which included both Quasi Money and foreign currency deposits did not give significant results as the presence of foreign currency deposits offset any positive effect of interest rate on Quasi Money. Foreign currency deposits were insensitive to interest and taxation, mainly because they are free of any taxes.

In summary, interest rate after taxation was found insignificant in the aggregate level but it was positively significant in Quasi Money function, implying that taxation does not discourage savings. However, this is not necessarily implies that taxation policies are conducive for improving financial investment but due to low effective rate of taxation. The effective rate of taxation in Sri Lanka is low because of high tax evasion resulting from following reasons.

- (i) Although numerous taxes, such as income tax, withholding tax turnover taxes, defence levy, etc. are levied on various financial instruments, effective taxes are much lower than its coverage as most of the investors are tax free due to high tax free threshold, exemption of government employees from income tax and various exemptions given on certain financial instruments.
- (ii) Most of the depositors are small savers and therefore, a large proportion of interest income is exempted from income taxes.

- (iii) People who are enjoying tax exemptions in respect of their employment income declare that they are non-tax payers to their deposit taking institutions, although their interest income is liable for taxes and they get exempted from withholding tax. As a result, the effective rate of withholding tax was around 5 per cent as against the announced rate of 15 per cent.
- (iv) There is no clear way of detecting tax evaders specially in the case of holding financial assets
- (v) As evident by a number of tax payers (0.11 million out of 6.1 million of labour force) and small amount of tax collection on financial assets (approximately 0.5 per cent of GDP) number of tax evaders appear to be quite high.
- (vi) Investment in government securities such as Treasury Bills which are being popularized on the grounds that they are exempted from withholding tax.
- (vii) Major part of national savings are contractual savings which are insensitive to either interest or taxation.

Income elasticity was very significant in determining national savings as well as other financial savings in their disaggregate forms. It showed a positive and significant impact on national savings. When the nominal or real GNP per capita was used in the model, the elasticity was much higher than unity. In Sri Lanka, government expenditure accounted for approximately 30 percent of GDP. Therefore, private income was used alternatively. Private income also found highly significant and positive. Income elasticity was around unity for both aggregate savings and Quasi Money.

The other significant factor that affects saving behaviour of the country was dependency ratio. The relatively higher dependency ratio in Sri Lanka showed a negative impact and this was particularly strong on non-contractual savings.

Sri Lanka has a low savings ratio around 15 - 16 per cent compared to many SEACEN countries, Singapore (47 per cent), Philippines (16 per cent), Thailand (30 per cent), Malaysia (38 per cent) . Therefore it is necessary to provide an environment to encourage savings in the

country. After a careful evaluation of the tax structure and its impact on financial assets following measures for removing or minimising certain taxes on financial assets can be recommended.

- (i) It was found in respect of many SEACEN countries that tax rates on financial instruments are either moderate or low so that the existing taxation does not discourage investment on financial assets. In recent years, in most SEACEN countries including Sri Lanka taxation policy has been used increasingly in favour of financial instruments by way of tax exemptions, minimization of taxation, reduction in tax rates, etc. For example many SEACEN countries do not have capital gains taxes on financial assets. Indonesia recently found that tax exemptions for certain categories and low tax rates on commercial Bank savings showed a significant improvement in their savings. Therefore application of a lower and common tax rate for financial instruments is necessary to minimize tax evasion and simplify tax administration.
- (ii) Although financial institutions play an important role in financial transactions, numerous forms of taxes imposed on financial institutions as well as financial instruments caused considerable distortions in financial transactions thereby giving rise to cost of the transactions. One of the major problems in taxation on financial sector in Sri Lanka is the imposition of indirect taxes such as turnover taxes, stamp duties, defence levy, etc. on financial instruments and financial institutions which raise not only the cost of funds but distort the allocation of interest on investment and thereby suppressing the economic growth. Minimization of taxation on these instruments are quite welcome in developing countries especially where savings are inadequate to achieve desired levels of economic growth.
- (iii) Within the financial sector itself there are discrepancies of taxing different institutions and instruments. Tax treatment therefore need to be more uniform thereby facilitating different players and instruments in the market to be competitive with each other. In the recent past, a concerted effort was made to minimise distortions relating to taxation providing a better level playing field among the players in the financial market. A level playing field should be provided for all financial institutions and instruments with regard

to taxation. Further revisions have to be made to simplify the tax system by removal of distortions and anomalies.

- (iv) These measures would also recognise the need to minimise crowding out effect thereby making more investible funds available for the private sector. Due to high tax evasion in Sri Lanka only a small proportion of tax payers bear the burden of taxes. Therefore, tax incidence on tax payers those who are effectively paying taxes is considerably high. The high tax incidence on private investment together with relatively high interest rates associated with government debt instruments as compared to modest rates of returns on private investment has resulted a substantial crowding out effect in the past. Tax measures therefore, seem to be an effective way of rectifying, the preventing discrepancies in resource allocation between various sectors.
- (v) As the level of savings is influenced greatly by the disposable income of the private sector and by economic growth it is essential to maintain a sustained and stable economic growth. For this purpose greater efforts should be made for investment on economic infrastructure and to promote economic activities through adoption of advanced technology and price stability.

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**FINANCIAL INSTRUMENTS IN SRI LANKA**

(As At 31-12-1995)

<b>Instruments</b>	<b>Institution</b>	<b>Other Salient Features</b>
1. Current Accounts	All Commercial banks	Cheques can be drawn on these Banks accounts. Interest is not payable. Overdraft facilities can be obtained against fixed deposits/NRFC Accounts. Some commercial banks (eg. HNB) provides insurance cover to the current account holders who have maintained specific minimum balance.
Pragathi Kantha (1995)	Hatton National Bank Ltd.	Facilities such as free standing order services, free cheque books, concessions on the issue of drafts and travellers cheques, ect. and guidance, support and assistance from the Bank were given under the scheme. to women entrepreneurs who hold current account.
2. "Ordinary" Savings-Accounts	Commercial Banks, National Savings Bank, and Rural Banks	Withdrawals can be made at any time. Most banks calculate interest on the minimum, balance in any month or and
3. "Special" Savings Deposits		
Investment Savings Accounts (1970)	People's Bank	Depositor undertakes to save a specific amount monthly, quarterly or half yearly over a 5 year period. Ordinary interest is paid if deposits are irregular. Loan facilities are available against these deposits.
Save-As-You-Earn (1979)	National Savings Bank	Monthly savings is deducted the Payroll and credited to the employees account.
Gift Vouchers (1980)	National Savings Bank	Vouchers of Rs. 5, Rs. 10, Rs. 25 are available. Person receiving the gift can open a savings account with NSB.

<b>Instruments</b>	<b>Institution</b>	<b>Other Salient Features</b>
Insurance Savings-Scheme (1981)	Bank of Ceylon in association with the Insurance Corporation of Sri Lanka	Provides free life insurance cover to savings account holders. The minimum deposit required to open an insured savings account Rs 1,000/- are eligible to join this scheme.
Premium Savings Bonds (1979)	National Savings Bank	Purchase of a Rs.10 bond enables a person to take part in a monthly lottery (tax free prices).
Savings Certificates (1972)	National Savings Bank	10 Years of maturity at fixed interest rate.
Savings Certificates (1989)	Bank of Ceylon	Available in six denominations of Rs 200, Rs 500, Rs 1,000, Rs 5,000 and Rs 10,000. With differing maturity periods of months, 12 months and 24 months. Annual yield is 16.28%. Certificates are encashable at any BOC branch and can be used as gift vouchers or collateral.
Monthly Interest Deposit Account (1991)	Standard Chartered Bank	12 month deposit scheme with interest varying according to the amount deposited. Minimum deposits exceeding Rs 1,000,000. Monthly interest can be credited to a high interest bearing savings account.
Children's Savings Scheme (1987)	Bank of Ceylon	Parent/guardian can open account for children under 16 years with an initial deposit of Rs.100/-. Interest is 10 per cent for amounts Rs.1,500/- and 11 per cent for amounts above this limit. Interest is calculated on the minimum quarterly balance. At the age of 21, the savings account will be treated as an ordinary savings account with the normal facilities.

<b>Instruments</b>	<b>Institution</b>	<b>Other Salient Features</b>
External Deposit Savings Accounts Minors (1989)	People's Bank	A deposit scheme for the benefit of children. A for minimum deposit of Rs.25 is required and deposit can be made monthly, quarterly or half yearly for a 5 year period. Interest is 12 per cent per annum for the first 60 months. Upon maturity, the account is converted to a fixed deposit with an interest rate of 14 per cent per annum.
<b>4. Foreign Currency Accounts</b>		
Non-Resident Foreign Currency Accounts Units	Foreign Currency Banking	Sri Lankans who have been resident abroad for a period of not less than 6 months may open savings or fixed deposit accounts in foreign currency.
Numbered Accounts (1991)	People's Bank and Hatton National Bank	Non-residential Sri Lankan and Hatton citizens and foreign nationals National Bank are able to open current, savings or deposit accounts in specified foreign currencies, while enjoying their full anonymity.
Resident Foreign (RFCA) (1992)	Foreign Currency Banking	With a minimum amount of US\$ 500 or its equivalent in other designated Exporters have Units been permitted to credit 5 per cent of the annual increment of their exports in terms of foreign currency.
Singithi Ran Surakum (1994)	Hatton National Bank Ltd.	A foreign currency deposit scheme which could be opened by a person employed abroad for his child who is a minor. Minimum deposit in an account is US\$ 25. Interest on these accounts is paid at 1 percentage point above the prevailing rate for NRFC accounts.

<b>Instruments</b>	<b>Institution</b>	<b>Other Salient Features</b>
5. Fixed Deposits	All Commercial Banks, National Savings Bank and Finance Companies	Fixed deposits can be obtained for maturities of 3,6,9,12 and 24 months or more. Interest rates vary according to the period of maturity. High rates are offered for larger amounts. Withdrawals are allowed before maturity. Loans can be obtained against these deposits. Finance companies can issue deposits with maturities range between 3 months to 36 months only.
6. Special Fixed Deposits:		
Contracted Savings Account Scheme (1979)	Bank of Ceylon	This scheme is open only to individuals (including minors). Interest is at 10 per cent per annum. Saver is eligible for bank loan. The scheme requires equal monthly instalments of a minimum of Rs 10/- and above.
Special Fixed Deposit Scheme (1979)	Bank of Ceylon	3 months interest is paid in advance for an investor who deposits Rs 5,000 or above on the day of opening such an account. Accounts are for a period of 3 months to 1 year. The rate of interest is similar to other fixed deposit schemes.
Fixed Deposit Certificates	National Savings Bank	Interest can be collected monthly. Minimum amount Rs 1,000/- not negotiable.
National Endowment Scheme (1981)	Bank of Ceylon	Parent/guardian can make deposits in the name of a minor. Minor can withdraw after 21 years, the capital plus interest.
Extended Deposit Account (Minors) Scheme (1989)	People's Bank	Parent/guardian makes a monthly deposit of a contracted sum over a period of 5 years. Total balance plus accrued interest thereafter is placed in fixed deposit until the minor reaches maturity. Deposits are withdrawable after 22 years.

<b>Instruments</b>	<b>Institution</b>	<b>Other Salient Features</b>
Certificate of Deposits (1982)	Commercial Banks, Financial Companies	Certificates of Deposits are available for 6, 9 and 12 month periods. Interest is negotiable. CDs are issued in denominations of Rs.100,000/-. Anonymity is maintained.
Two year Fixed Deposits (1981)	National Savings Bank	22 per cent interest per annum paid at maturity.
An Endowment Scheme (1982)	National Savings Bank	A depositor, for himself or for the benefit of others including minor children, could make a lump-sum deposit or monthly instalments for a continuous period of 11 months. Depositor able to make a once and for all withdrawal according to his option on completion of the 10th year, 15th year, 20th year or 25th year. Minimum deposit Rs.500/-. Deposits should remain for a minimum period of 10 years.
New Short-term Deposit Scheme (1982)	Amro Bank	Interest is paid on short-term deposits. Deposits are accepted for 7 days, 1 month, 3 months, and 6 months. Interest varies with the size of the deposit and its duration. Minimum deposit of Rs. 50,000/-.
Savers' Housing Loans Scheme (1988)	National Savings Bank	Enables the customer to save now and build, purchase, redeem, complete or repair a house later. The scheme is for self employed individuals who are not income tax payers or salary/income earners. The monthly deposit would range from Rs 100/- (in multiples of Rs 100/-). Depositors who deposit for a minimum period of 12-24 months became eligible for housing loan facility 3-5 times the balance in the account.
Children's Savings Account (1990)	Sampath Bank	Minimum initial deposit of. Interest applicable is 13.5 per cent per annum computed on a daily basis. Withdrawals can be made only after the account holder reaches 18 years of age.

<b>Instruments</b>	<b>Institution</b>	<b>Other Salient Features</b>
Child Protection Account	Seylan Bank	Children under the age of 13 years are eligible. Deposits can be made from Rs.150 to Rs 650 on a monthly, quarterly, half-yearly or annual basis. Interest is calculated on daily balances at 12 per cent per annum. Withdrawals are permitted only after the end of the contract period (5-10 years).
Special Savings Certificate (1990)	State Mortgage and Investment Bank	Available in denominations of Rs 500, Rs 1,000, Rs 5,000, Rs 10,000 with a maturity period of 5 years and an interest rate of 20 per cent per annum. Encashable in an emergency and a beneficiary can be nominated. On maturity the amount deposit doubled. Depositor is eligible for a loan upto 10 times the amount deposited.
HNB Parent Care Scheme	Hatton National Bank	To help account holders' parents in their hold age. This scheme comes into operation as the deposit reaches a minimum of Rs 10,000. Interest rate is 1 per cent higher than prevailing rate of interest.
Janasaviya Entitlement certificate holders Group Lending Scheme cum Investment Savings Account (1991)	People's Bank	The Janasaviya recipients who are willing to participate to obtain under this scheme are included in 10-20 member groups known as Praja Sanwardana Sanyogithawa. All members required to open accounts with minimum monthly deposit of Rs 50. Granting loans are considered after 3 months of opening the account. Loan is not exceeded 5 times the contributed balance. Interest rate is 2.5 per cent per month with a repayment period of 2 years.
Savings certificate (1991)	People's Bank	In denominations of 6 values with a minimum of Rs 100/- to a maximum of Rs 10,000/-.

<b>Instruments</b>	<b>Institution</b>	<b>Other Salient Features</b>
Savings Stamps - Children's savings Scheme (1991)	People's Bank	This scheme is functioning through specially printed savings stamps worth of Rs 5/- each and bank pays interest rate of 14 per cent per annum.
"Isuru" Minors Savings Account (1991)	Commercial Bank of Ceylon Ltd.	These account holders are issued with of Ceylon Ltd. entitlement certificates which matures at the age of 21 years.
HNB Savings Coupon Scheme (1992)	Hatton National Bank	Maturity period of 6, 12 and 24 months with the face value ranging from Rs 100/- to Rs 10,000/-.
Singithi Savings Account (1992)	Hatton National Bank	Scheme for minors - with minimum deposit of Rs 500/-.
Kantha Ran Ginuma (1993)	Bank of Ceylon	Thrift Scheme exclusively for women. Working women, professionals, Janasaviya recipients and estate workers over 18 years of age. Initial minimum deposit for Janasaviya recipients and estate workers is Rs 200/- with monthly deposits of Rs 100/- while few others is Rs 500/- with the monthly deposits in multiples of Rs 250/-. Interest rate is 13 per cent per annum.
Vanitha Vasana Ginum (1993)	People's Bank	Specially designed for women with initial minimum deposit of Rs 500/-. Account holders who maintain a minimum balance of Rs 5,000 in these deposits eligible for its annual prize draw. Interest rate is 11 per cent.
Upahara Parents Pension Account (1993)	Commercial Bank	For parents who are over 50 years of age carrying competitive interest rate prevailing in the banking sector. Monthly instalment between Rs 250/- to Rs 3,500/- has to be deposited for a period of 66 months. At the end, parents are assured of a monthly income.

<b>Instruments</b>	<b>Institution</b>	<b>Other Salient Features</b>
Ran Kekulu Ginum (1993)	Bank of Ceylon	Aimed at promoting the savings habits among children. Offers an interest of 14 per cent. The initial minimum deposit for urban children is Rs 100/- and that for rural children is Rs 50/-. Offers several attractions to children and their schools.
Seylan Plan (1994)	Seylan Bank Ltd.	Retirement pension scheme for anyone within the age group of 18 - 50 years.
Gurusetha (1995)	People's Bank	Deposit-cum loan scheme to grant loans to teachers.
Standard Chartered Bank Saving Deposit Scheme (1995)	Standard Chartered Bank	Saving scheme with an Bank entitlement to a lucky draw.
Pan Asia Bank Fixed Deposit Scheme (1995)	Pan Asia Bank	Free insurance cover are provided for fixed deposit holders who have a minimum deposit of Rs 25,000.

#### 6. Government Securities.

Treasury Bills (1953)	Government of Sri Lanka	A Treasury bill is a financial instrument which is issued as a means of raising funds to meet short term cash requirements of the government and intends to cover seasonal shortfalls of revenue and also meet unexpected expenditure. A Treasury bill is a negotiable instrument and can be transferred on endorsement. Secondary market operation of Treasury bills commenced on 21 April, 1981. Weighted average yield rates were 11.58-18.73, 11.71-19.29 and 12.20-19.43 per cent per annum for 3, 6 and 12 month maturities, respectively in 1994. Issued at discount rates on the basis of quoted interest only. Authorised limit for Treasury bills increased from Rs.10 million in 1941 to Rs.125,000 million at present. See Appendix Table IV for details of authorised limits.
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Instruments	Institution	Other Salient Features
Rupee Securities (1949)	Government of Sri Lanka	Rupee Securities issued for the purpose of financing the Budget deficit. The title of any stock holder to any registered stock shall be transferred to any other person only upon the execution of an instrument in writing signed by both the stock holder and the transferee and upon the registration. Interest is paid half yearly at a previously agreed rate. In early years Rupee Securities with much longer maturity periods such as 25 years, 12 years and 10 years were issued. In recent past, medium term maturities of 2 years, 3 years, 5 years and 6 years are available. One year securities were issued only in 1991.
Tax Reserve Certificates	Government Sri Lanka	Issued for the purpose of facilitating of Sri Lanka payment of sums due as income tax or profit tax. Certificate holder is entitled to surrender the certificate to the Commissioner General of Inland Revenue in payment with a surrender value of certificate to pay his dues on income tax, personal tax, profit tax, wealth tax, gift tax or estate duty. Interest rate was 15 per cent. This was operated in a time that taxes were not paid on a current year basis. No new borrowings by way of TRC.
National Defence Bonds (1990)	Government of Sri Lanka	For the purpose of raising funds Bonds (1990) of Sri Lanka financing the budget deficit. Issued in 1990 for a maturity period of 3 years. Fixed interest rate of 15 per cent. No new borrowings by way of NDB.

Instruments	Institution	Other Salient Features
Treasury Certificates of Deposits (1990)	Government of Sri Lanka	These are Certificates of Deposit issued denominations of Rs 1,000 or in multiples of Rs 1,000 for periods of 6, 12 and 24 months. The interest rates were around 17-19 per cent in 1994. The main objective is to legalise the black money by attracting them meet the government financial requirements. Any person can buy and transfer the document without disclosing identity.
Special Long Term Bonds (1993)	Government of Sri Lanka	Issued for the purpose of recatalisation and restructuring of the two state banks, i.e. Bank of Ceylon and Peoples' Bank. Issued for a maturity period of 30 years. Outstanding balance as at December 1994 was Rs.24,088 million. Owned by Bank of Ceylon (Rs.13,547 million) and Peoples' Bank (Rs.10,541 million). Fixed interest rate of 12 per cent.

### TAXATION OF FINANCIAL INSTRUMENTS (As at 31st December 1995)

Type of Financial Assets	Tax Rate	Remarks	Last Date of Amendment
1. Deposits held with commercial banks, National Savings Bank and other financial institutions. (savings deposits, current accounts, fixed deposits, etc)	Income Tax Full amount of interest income derived from investment is taxed at nominal tax rate	Global system of taxation. Income from all sources such as any trade, business, profession employment properties, dividends, net capital gains, interest premium, discounts, royalties, annuities are aggregated. Individual is the tax unit	With effect from 01.04.1996
		1. Tax free threshold Rs.100,000 2. Qualifying payment of 1/3 of assessable income or Rs.25,000 3. Taxable Income: First Rs.35,000 - 10 per cent Second Rs.25,000 - 20 per cent Third Rs.25,000 - 30 per cent Balance - 35 per cent 4. Tax credit for wage income of Rs.15,700 is available for employees in receipt of emoluments of Rs.144,000 or less per annum	
	<b>Surcharge :</b> 15 per cent on income tax		Introduced on 1.4.92 and withdrawn w.e.f 01.04.1996
	<b>Withholding tax</b> - 15 per cent on interest income	Banks and financial institutions are required to withhold 15 per cent of interest payable	w.e.f. 01.04.1992

Type of Financial Assets	Tax Rate	Remarks	Last Date of Amendment
<b>Stamp Duty*</b>			
(a) Any withdrawal more than	Rs.100 - Rs.2	Any receipt is subject to following stamp duties from 08.01.1995	w.e.f. 01.01.1991
(b) Cheques (per cheque leaf)	- Rs.1		
(c) Teller machine transactions/ credit cards	- Rs.1	Rs.1 - Rs.99 - Exempted	
(d) Travellers' cheques (on the value of travellers' cheques)	- 0.5%	Rs.100 - Rs.999 - Rs.2.00	
(e) Letters of credit (on the full value of the L/C)	- 2%	Rs.1,000 - Rs.9,999 - Rs.5.00	
(f) Bill of Exchange payable on demand or on presentation or within three days after date of sight	- Rs.0.25	Rs.10,000 - Rs.19,999 - Rs.10.00	
(g) Bill of Exchange, draft or order for the payment at any time other than on demand or at sight or on presentation or within 3 days	- Rs.1 for every Rs.1,000 or after date or sight ) part thereof	Rs.20,000 and above - Rs.20.00	
(h) Draft payable on demand and drawn by or on behalf of a bank in Sri Lanka on itself or drawn by any person on a bank in Sri Lanka	- Rs.0.25		
(i) Bill of lading of or for any goods, merchandise or effects exported or carried costwise for each part of every set	- Rs.10.00		
(j) Partnership instrument	- Rs.10.00		
(k) Promissory Note			
(i) In the case of Rs.10,000 or less	- Rs. 1.00		
(ii) Where the amount exceeds Rs.10,000 for every Rs.1,000 or part thereof	- Rs. 0.50		

Type of Financial Assets	Tax Rate	Remarks	Last Date of Amendment
<p>2. <b>Approved Long term deposits by the Inland Revenue Department such as</b>  National Savings Bank Endowment Scheme  Bank of Ceylon National Endowment (Minor and Adults) Scheme, Bank of Ceylon  Children's Savings Scheme, Bank of Ceylon Savings Scheme for Minors.</p>	Income tax 15 per cent		
<p>3. <b>Ceylon Savings Certificates or National Savings Certificates which were purchased on or before 15.11.1978</b>  (Accumulated interest payable to an individual)</p>	Income tax 15 per cent		
4. <b>Non-residents Foreign Currency Accounts</b>	Exempted		
5. <b>Post Office Savings Accounts</b>	Exempted		
6. <b>Special Accounts</b>	Exempted	Special accounts are opened by commercial banks with the approval of the Central Bank for the deposit of foreign currency held by such person outside Sri Lanka and converted by him into Sri Lanka currency for deposit in the special account	w.e.f. 06.03.1987
7. <b>Foreign Currency Deposits in Foreign Currency Banking Units</b>	Exempted		
8. <b>Residents Foreign Currency Accounts</b>	Exempted		

Type of Financial Assets	Tax Rate	Remarks	Last Date of Amendment
9. Certificates of Deposits*	Income Tax - exempted Stamp duty (a) Certificate of Deposits (including Treasury Certificate of Deposits) (i) CDs with a maturity of 1 year or less (ii) CDs with a maturity of more than 1 year	CDs with a maturity of more than 4 years are exempted  3 per cent  Duty increased by 3 percentage points for each additional year	w.e.f. 01.04.1993  w.e.f. 01.04.1989  w.e.f. 01.01.1991
10. All Provident and Pension Fund	Withholding tax 10 per cent on interest		
11. Employment Income deduction is done under PAYEE System*	Normal tax rates		
12. Employees Provident Fund and Employees Trust Fund	The Investment income excludes the income from investment in Government securities - 10 per cent		w.e.f. 01.04.1989
13. Other Provident Funds and Pension Funds	Income Tax - 10 per cent		
14. Gratuity Funds	Investment Income - 20 per cent	20 per cent	
15. Tax Reserve Certificates	Exempted		
16. Government Securities	Withholding tax 15 per cent on interest		
17. Treasury bills- held by the Central Bank	60 per cent of the interest or 9 per cent of the face value whichever is less	Applies to interest or discount on any Treasury bills of the Government held by the Central Bank	w.e.f. 01.04.1989
- held by non-residents*	Exempted	Withholding tax on Treasury bills exempted	w.e.f. 01.06.1994

Type of Financial Assets	Tax Rate	Remarks	Last Date of Amendment
Shares, Debentures, etc*	<p><b>Capital Gain Tax</b></p> <p>Capital gains other than those arising from the change of ownership of property (gains arising from surrender or relinquishment of a right, redemption of shares etc.) - 25 per cent</p> <p>Following transactions are exempted from Capital Gain Tax:</p> <p>(a) The sale of stock-in-trade in the ordinary course of business</p> <p>(b) Change of ownership of any share</p> <p>(1) In a BOI Company</p> <p>(2) In a quoted public company</p> <p>(i) on or after 26.08.1992</p> <p>(ii) prior to 26.08.1992 where such share has been held for over one year</p> <p>(c) The sale of any share/stock held by a venture capital company unit trust, mutual fund, which is granted tax holiday status</p> <p>(d) The sale of any unit in any unit trust or mutual fund one year from the date of acquisition of such unit</p> <p>(e) The sale of property by an individual on or after 01.01.1990 where the sale proceeds are invested within one year of the date of sale but before 01.04.1992 in the purchase of new ordinary shares or units in a company granted tax holiday status and engaged in any of the following activities-</p> <ul style="list-style-type: none"> <li>- Pioneering undertaking</li> <li>- Venture Capital Company</li> <li>- Unit Trust/Mutual Trust</li> <li>- Expansion of industry</li> </ul>	Capital gains arising from transactions in the stock exchange have been exempted	w.e.f. 01.04.1996

Type of Financial Assets	Tax Rate	Remarks	Last Date of Amendment
	(f) The change of ownership arising on the conversion of a proprietary or partnership business into a quoted public company or any other company due to the transfer of any of the assets of the business to the company. To obtain this exemption, any asset of the business acquired prior to 31.03.1977 must be transferred to the company at a price not exceeding the market value of the asset on 31.03.1977 and the proprietor or the partners, as the case may be, must hold not less than 80 per cent of the shares of such limited liability company.		
	(g) The sale of Treasury bills in the secondary markets - exempted		
<b>Dividends</b>			
	Distribution of profits in the form of - Tax as normal income		
	(i) money		
	(ii) shares in any other company	- Subject to withholding tax of 15 per cent	
	(iii) debentures in that company or in any other company		Imposed on dividend distributed by a company to its shareholders which is treated as a part of income
	Following transactions are exempted from Dividend tax:		
	(a) Dividend will not include		
	(i) a bonus share or		
	(ii) a payment in reduction of capital		
	(b) A dividend paid out of profits arising on or after April 1, 1977 which are exempted under Inland Revenue Act (several amendments in 1980, 1981, 1983, 1984, 1988, 1990 and 1992)		

Type of Financial Assets	Tax Rate	Remarks	Last Date of Amendment
	(c) Dividend paid by companies under GCEC (BOT) Law (i) to non-resident person (ii) to any person during the period of tax holiday or within one year, thereafter, out of its exempted profits.		
<b>Transfer Tax</b>			
	(a) Transfer of ownership of any property 100 per cent tax is chargeable (any land or any shares in a company) on a transfer of property to in Sri Lanka to a person who is not ) a non-citizen a citizen of Sri Lanka )		w.e.f. 03.05.1989
	(b) Any transfer of shares from a non-citizen to another - exempted		
	(c) A transfer of shares from citizen to a non-citizen is permitted free of tax upto 40 per cent of the issued capital - exempted		w.e.f. 05.06.1990
	(d) The transfer of shares of a company to a commercial bank for the provision of a loan, overdraft or other financial facility given by the bank on the security of a mortgage of such shares is exempted from tax.		
	(e) The transfer of shares held by a non-national Director of a company to another who is succeeding him as Director of such company is also exempted from tax.		
<b>Withholding Tax</b>			
	Interest payable to non-resident person on debentures, mortgages, loans, deposits etc. and rent, ground rent royalty or annually	- 33 1/3 per cent	

Type of Financial Assets	Tax Rate	Remarks	Last Date of Amendment
	Sum payable by way of fee, commission, brokerage etc. in the course of any profession, vocation or other activities - 3 per cent		
	Dividend declared by a resident company other than quoted public company - 15 per cent		
	Dividend declared by quoted company to non-resident - 15 per cent		
	Distribution of profit in the form of shares or debentures - 15 per cent		
	Withholding tax on dividends declared by quoted companies to residents has been withdrawn		
	Dividend paid by companies registered under BOI is exempted		
	<b>Stamp Duty</b>		
	Share transactions in non-listed companies - 1 per cent		w.e.f. 01.04.1994
	Share transactions in listed companies - 0.5 per cent		
	Bonds and debt securities traded through the stock exchange - exempted		w.e.f. 01.04.1996
<b>Financial Institutions*</b>	<b>Turnover Tax</b>		
	Turnover tax is imposed on interest and other charges (except receipts from the operations of (FCBU) derived by banks and financial institutions		

Type of Financial Assets	Tax Rate	Remarks	Last Date of Amendment
1. Banks	3 per cent 2 per cent		prior to 06.11.92 w.e.f. 06.11.1992
2. Business of financier or money lender other than banks, business of pawn brokers, business of leasing	5 per cent 4 per cent		prior to 06.11.92 w.e.f. 06.11.1992
3. Share market transactions	6 per cent on brokerage - exempted		prior to 01.04.1996 w.e.f. 01.04.1996
4. Gross lease rental received/receivable for each quarter	5 per cent		
5. National Development Bank Development Finance Corporation of S.L.	2 per cent		w.e.f. 10.11.1993
6. Dealers involved in the buying and selling of shares	Tax as normal income		
7. Insurance Companies	<p>The tax rates imposed on the business of life insurance are as follows:</p> <p>(i) Mutual companies - 20 per cent (ii) Other companies - 35 per cent</p> <p><b>Stamp Duty</b></p> <p>(a) Policy of Insurance:</p> <p>(i) In the case of life insurance for every Rs.1,000/- or part thereof - Rs. 0.50 (ii) Any other insurance - Rs.10.00</p>	<p>The profits and income of a company engaged in the business of life insurance is subject to tax. Profits and income is defined to be equal to the investment income of the Life Insurance Fund less management expenses.</p>	

Type of Financial Assets	Tax Rate	Remarks	Last Date of Amendment
<b>Capital Gain Tax</b>			
	Following transactions are exempted from Capital Gain Tax:		
	(a) Surrender of a life insurance policy		w.e.f. 01.04.1980
	(b) The surrender, transfer or extinction of a life insurance		w.e.f. 01.04.1980
<b>Defence Levy (National Security Fund)</b>			
	Imposed on banking, finance and insurance services	- 4.5 per cent	w.e.f. 01.01.1994
<b>Turnover Tax</b>			
	Total receipts including premia insurance received/receivable in respect of life insurance	- 5 per cent	w.e.f. 01.04.1996
<b>Investment Companies and Unit Trusts*</b>			
	<b>Turnover Tax*</b>		
	Proceeds from the sale of shares exempted	- 1 per cent	prior to 01.04.1996 w.e.f. 01.04.1996

**NOTES:**

1. Capital Outflows - In Sri Lanka capital account is not liberalised therefore capital outflows are restricted by exchange controls.
2. The current Inland Revenue Act is No.28 of 1979 dated 21 May 1979.
3. The rates and exemptions given here are current tax rates and exemptions. Some of these have been revised since original imposition.

# KEY TO THE VARIABLES

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LGNS	Log of National Savings (in nominal terms)
LRGNS	Log of National Savings (in real terms)
LGDS	Log of Domestic Savings (in nominal terms)
LRGDS	Log of Domestic Savings (in real terms)
LFS	Log of Foreign and Domestic time and savings Deposits held by Public (in nominal terms)
LRFS	Log of Foreign and Domestic time and savings Deposits held by Public (in real terms)
LQM	Log of Quasi Money (in nominal terms)
LRQM	Log of Quasi Money (in real terms)
LPY	Log of National Private Savings (in nominal terms)
LRPY	Log of National Private Savings (in real terms)
LKBT	Log of Nominal Interest Rate for Commercial Bank Fixed Deposits
LRKBT	Log of Real Interest Rate for Commercial Bank Fixed Deposits
LAKBT	Log of Nominal Interest Rate after taxation for Commercial Bank Fixed Deposits
LARKBT	Log of Real Interest Rate after taxation for
LDR	Log of dependancy ratio
P	Policy Variable

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## THE TIME SERIES PROPERTIES OF THE VARIABLES

Variable	ADF Statistic	Critical Value		Variable	ADF Statistic	Critical Value	
		1% level	5% level			1% level	5% level
LKBT	-1.9740	-3.7497	-2.9969	DLKBT	-4.3197	-3.7667	-3.0038
LRKBT	-0.1929	-3.7497	-2.9969	DLRKBT	-5.0208	-3.7667	-3.0038
LAKBT	-2.5015	-3.7497	-2.9969	DLAKBT	-5.0208	-3.7667	-3.0038
LRAKBT	-0.1972	-3.7497	-2.9969	DLRAKBT	-4.7966	-3.7667	-3.0038
LGNS	-0.2980	-3.7497	-2.9969	DLGNS	-3.8996	-3.7667	-3.0038
LRGNS	-1.1152	-3.7497	-2.9969	DLRGNS	-4.0433	-3.7667	-3.0038
LGDS	-0.2047	-3.7497	-2.9969	DLGDS	-4.0655	-3.7667	-3.0038
LRGDS	-1.2413	-3.7497	-2.9969	DLRGDS	-4.0852	-3.7667	-3.0038
LFS	-0.3225	-3.7497	-2.9969	DLFS	-3.5099	-3.7667	-3.0038
LRFS	-0.8374	-3.7497	-2.9969	DLRFS	-3.3007	-3.7667	-3.0038
LQM	-0.5194	-3.7497	-2.9969	DLQM	-3.4801	-3.7667	-3.0038
LRQM	-0.9755	-3.7497	-2.9969	DLRQM	-3.2191	-3.7667	-3.0038
LPY	-0.3791	-3.7497	-2.9969	DLPY	-4.1691	-3.7667	-3.0038
LRPY	-1.4041	-3.7497	-2.9969	DLRPY	-3.6478	-3.7667	-3.0038
LDR	-1.0224	-3.7497	-2.9969	DLDR	-5.4069	-3.7667	-3.0038

Note: D is the MicroTSP difference operator

MicroTSP statistical package is used for estimations

## Chapter 12

### TAXATION OF FINANCIAL ASSETS IN THAILAND<sup>1</sup>

by

*Songtum Pinto<sup>2</sup>*  
*Busaya Thanomphongphandh<sup>2</sup>*

#### I. Thailand's Tax Structure

##### 1.1 Introduction

The principal taxation law of Thailand is set out in the Revenue Code B.E. 2481 (1938), which composes corporation income tax, personal income tax, value added tax, specific business tax, and stamp duty. There are also a number of national and local revenue collecting statutes imposing various types of tax. These important taxes include custom duties, excise tax, property and land tax and signboard tax that are levied totally by local government.

Most of the tax revenues are collected by the agencies subordinating the Ministry of Finance which are Revenue Department, Excise Department and Customs Department. Figure 12.1 shows the collecting agencies under the Ministry of Finance and various types of tax that they have responsible for. Table 12.1 show the revenue structure collected by the government.

##### 1.2 Personal Income Tax

Individuals residing for 180 days or more in Thailand in any calendar year are subject to tax on derived income. Non-residents are subject to tax only on income derived from source within Thailand. Income is taxed at progressive rates on net income ranging from 5 per cent of net income not exceeding B 100,000 to 37 per cent of net income over B 4,000,000.

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1. The views expressed in this paper are of the authors and do not necessarily represent the official views of the Bank of Thailand
  2. Economists, Economic Research Department, Bank of Thailand.

**Table 12.1****THAILAND'S TAX REVENUE (FISCAL YEAR)****(Unit Billion Baht)**

	1993	1994	1995
Personal Income Tax	54.2	64.7	83.1
From Interest & Dividends income	26.1	27.8	30.4
From Non-Interest & Dividends income	28.1	36.9	52.7
Corporate Income Tax	101.7	134.7	157.2
Value Added Tax <sup>1/</sup>	92.8	114.2	141.8
Import Duty	102.3	113.5	126.5
Excise Tax	119.6	113.8	151.5
Others	88.3	113.6	100.7
Total Revenue	558.9	654.5	760.8

1/ Including Specific Business Tax and Business Tax.

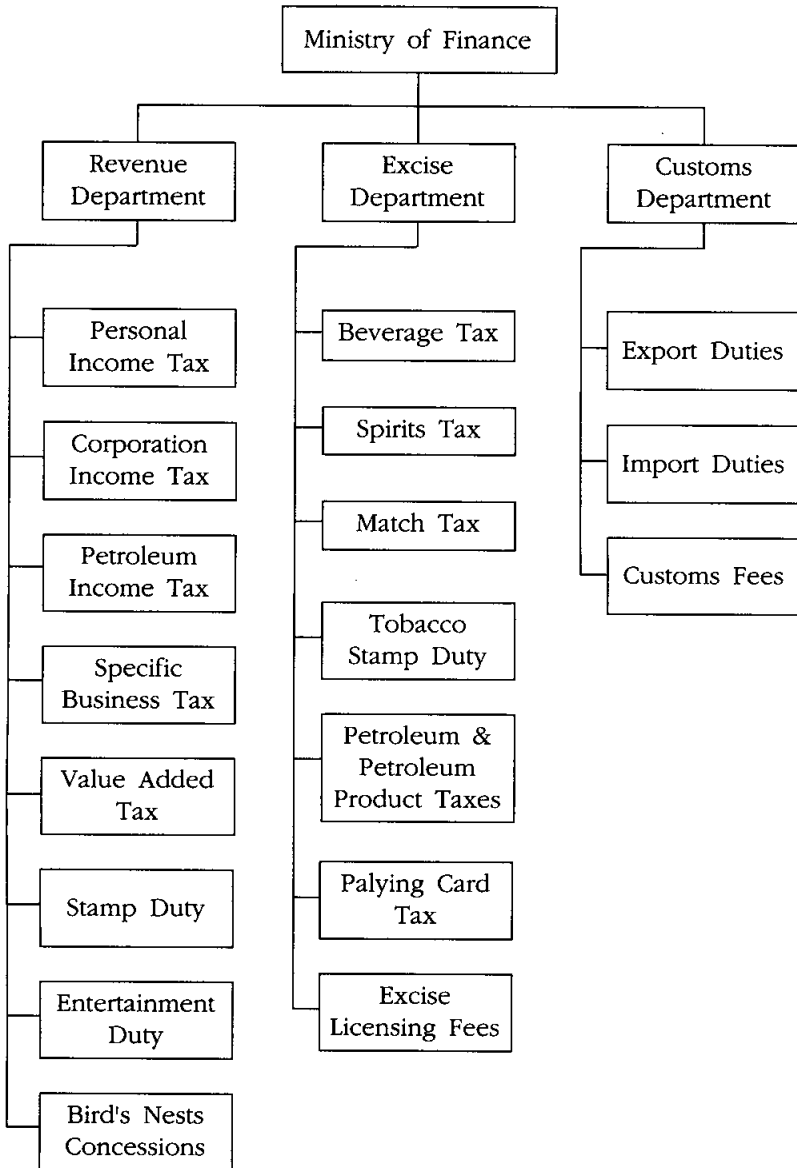
In computing net income the deductible expenses and allowances are allowed. The deductible expenses are varied by types of incomes ranging from 10 per cent to 85 per cent. Income derived from wage and salary the deduction are allowed at 40 per cent of gross income and not exceeding B 60,000. Various kinds of allowances are also deductible; namely, each B 30,000 each for taxpayer and spouse, B 15,000 for each child (not exceeding 3 children) B 2,000 for education of each child, B 10,000 for life insurance, B 300,000 for contribution to provident fund etc.

**1.3 Corporate Income Tax****1.3.1 Domestic Companies**

Companies, registered partnership and limited partnership which register in Thailand are subject to tax under the corporate income tax provision from sources within and without Thailand.

**Figure 12.1**

**TAX COLLECTING AGENCIES**



Tax rate is determined at flat rate of 30 per cent of net profit. Net profit is determined, after business expenses and depreciation allowances, which range from 5 per cent to 20 per cent of original cost assets. Net losses may be carried forward to five consecutive years. No allowance for carrying back losses to previous years.

### **1.3.2 Foreign Companies**

Foreign companies not registered in Thailand are subject to tax only on income from sources within Thailand. Such income will be taxed by withholding at source at 10 per cent and 15 per cent for dividends and other incomes, respectively.

## **1.4 Stamp Duty**

Stamp duties are imposed on documents (government forms, legal contracts and other instruments) on per transaction basis. Its rates range from B 1.0 per B1,000 to B 100 per articles.

## **1.5 Value Added Tax (VAT)**

Value added tax replaced Business Tax on January 1, 1992. In principle, all goods and services are subject to VAT. Some necessary goods and services are exempted from VAT, in order to reduce tax burden of the poor.

The VAT rate 7 per cent is imposed for general goods and services and 0 per cent for export. However, for business with annual turnover of B 600,000 - B 1,200,000, the business owner has a choice between a gross turnover tax at a rate of 1.5 per cent or the normal rate of VAT.

## **1.6 Specific Business Tax**

Specific business tax is imposed instead of value-added tax on the following business :

- Commercial banks
- Finance firms and credit fonciers
- Insurance companies
- Pawn shops
- Other business with similar operation as commercial bank, and etc.

Tax rates imposed are 3 per cent from interest earning of financial institutions and 2.5 per cent from interest earning of insurance company and pawnshop.

In any case exemptions are made for the following business :

- Government's financial institution or organization, e.g. Bank of Thailand, Government Savings Bank, National Housing Authority
- Saving Cooperatives
- Provident fund
- Stock Exchange Market of Thailand

### **1.7 Excise Tax**

Excise Tax are levied on imported goods and selected locally produced which are considered as luxurious goods e.g. spirits, tobacco and automobile.

Excise tax rate currently imposed are subject to specific or ad valorem rates, whichever is higher.

### **1.8 Import Duty**

Ad valorem (on c.i.f. Value) and/or specific duties are imposed on imports, classified according to the harmonized system. The current tariff structure is under going a reform aiming to lower tariff barriers and reduce number of rates to 6 basic rates (excluding automobile and agricultural goods).

- Special treatment goods	0%
- Raw materials	1%
- Primary goods machinery	5%
- Intermediate goods	10%
- Finished goods	20%
- Special Protection goods	30%

## **II. Financial Assets and Their Tax Treatment**

### **2.1 Assets in Thailand**

Thailand has a number of financial assets which are composed of government bonds, certificate of deposit, commercial papers which include promissory notes, bill of exchange and cheques, etc. Most of these financial assets play a significant role in the money market. In addition, there are also capital instruments such as equities and debentures which contribute the increasing role in the capital market especially in the stock exchange of Thailand. Details of the major financial assets in Thailand are presented in Appendix 12.1.

### **2.2 Taxation on Financial Assets**

Thailand imposes various types of tax on financial assets to cover all sources of income. By this principle all types of income generated by financial assets are subject to tax. Types of tax imposed are varied by types of financial assets and types of persons receiving such income-individual and corporate.

#### ***2.2.1 Personal Income Tax of Financial Assets***

Income from financial assets may exist in the form of interest income, dividend and capital gain. Types of tax imposed also vary by forms of income.

##### ***1. Capital Gain***

Most types of capital gains from financial assets are currently exempted, except that capital gains from the sale of shares in a company which are not listed in the Stock Exchange of Thailand. Such income has to be included with other sources of income and taxed at progressive rate.

##### ***2. Income from Interest and Dividend***

Interest received from bank deposits, debentures or government bonds is subject to tax withholding at source at flat rate of 15 per cent. The individual may choose to exclude such interest income from other incomes, in such case he pays the 15 per cent withholding tax, or he

may choose to include such interest income with other incomes and pay tax according to the personal income tax at progressive rates, in such case the tax withheld at source is credited against the tax liability.

Individuals who received dividend income from a company incorporated in Thailand (whether listed or not listed in the Stock Exchange of Thailand) are subject to tax at flat rate of 10 per cent withholding at source, or he may choose to include such dividend income with other incomes and pay tax according to personal income tax at progressive rates. In the latter case, individuals who choose to include dividend income with other incomes has the right to waive the tax credit of dividend income by 3/7 of the tax he has been withheld.

Interest income from loans made to finance companies (normally in the form of promissory notes) is also subject to tax at 15 per cent withholding at source and has no right to exclude such interest income from other incomes.

Some types of financial instruments are exempted from tax, eg., interest from savings deposit not exceeding B20,000.

Details of types of financial assets and tax burden are shown in Table 12.2.

### ***2.2.2 Corporate Income Tax of Financial Instruments***

Income of financial instruments received by company or other types of corporation is subject to tax as other sources of income; that is, it has to be included with other incomes and taxed at 30 per cent of net profit. In addition, the interest income and dividend income is subject to withholding tax by 1 per cent and 10 per cent respectively. However corporates who is withheld tax can credit the same amount withheld against tax liability.

In addition to tax on net profit, the income from interest and capital gain is subject to specific business tax at 3 per cent of the amount of income received.

## **III. Impacts of Taxation of Financial Assets**

Savings is the part of income that is not spent. National savings which comprise household, business and public savings are the main

Table 12.2

## TAX AND FINANCIAL ASSETS

	15% withholding tax	10% withholding tax	exempt
Interest Income			
Bond	*		
Treasury Bill	*		
NCD			
Issued by Commercial Bank	*		
Issued by Finance Company	*1/		
Debenture	*		
Commercial Papers (B/E, P/N)	*		
Time Deposit	*		
Savings Deposit not exceeding B20,000			
Savings Deposit	*		*
Dividend Income			
Common Stock (both listed and not listed in the SET)		*	
Investment Unit in Mutual Fund		*2/	
Capital Gain			
Any Financial Assets 3/			*

1/ No right to exclude from other income.

2/ No right to credit against tax liability.

3/ For capital gain of common stock that are not listed in the SET, such income has to be included with other incomes and taxed according to personal income tax rate.

sources of investment financing. Eventhough domestic investment can be financed from both national and foreign savings, still every countries national savings provides the bulk and self-reliance of resources for investment. In order to support the expansion of investment and production, the nation has to adequately mobilize domestic savings. Otherwise the gap between investment and savings has to be bridged by the foreign financial resources. A chronic shortage of domestic savings will result in the persistent dependence on foreign savings reflected by the current account deficit and an increase in foreign debt.

Thailand has been currently in the stock adjustment process. In other word, in order to sustain the high rate of economic growth, we need the enormous stock of investment each year such that the domestic financing cannot response adequately. During the past five years the investment in proportion to GDP is around 40 per cent where that of the saving is around 34 per cent. The six per cent gap each year has to be bridged by the foreign savings.

Realizing this problem the Government have continuously initiated various policies to promote domestic savings. Among them tax measures are the crucial issue which are expected to influence exclusively the private savings behavior. Nevertheless, the study of the taxation impacts on savings behavior which has been performed so far are somewhat ambiguous. More importantly those performed specifically, to the cases of Thailand and the East Asian's contries are rare. Therefore the assessment of the taxation impacts on financial assets or in other word on savings is essential to provide the clear direction to policy maker how or whether the tax incentives on savings is effective.

This section will be classified into three parts : first the brief discussion on Thailand's savings pattern will be presented, second, the tax incentives which were performed during the recent years will be presented and lastly but most importantly, the empirical test of taxation impacts on savings will be offered under the theoretical framework of life-cycle hypothesis as proposed by Ando and Modigliani.

### **3.1 Thailand's Savings Pattern**

Domestic savings comprise public saving and private savings. Private savings which comprise corporate and household savings play a sig-

nificant role in financing investment. In the past, private savings occupied 63 per cent of total savings. Around two-third are contributed by corporate and one-third by household. The gross national saving during the last decade increases steadily from 23 per cent of GDP to around 34 per cent of GDP (see Chart 12.1) in response to the stable economic growth during the same period. Most of which were contributed by the improved public savings especially the Government budget which experienced the cash surplus for eight consecutive years. The public savings in proportion to GDP increases remarkably from around 3 per cent in 1985 to 13 per cent in 1995. Private savings which comprise corporate and household savings are constant at around 22 per cent of GDP during this period. However the household savings reduce markedly around 12 per cent of GDP in 1985 to around 7 per cent of GDP in 1995. This implies that corporate savings have to be increased at the same rate of reduction in household savings in order to keep the private savings constant. The increased corporate savings are in response to the rapid economic growth of the last decade. Business in order to accomodate the increasing demand have to upgrade the production which can be done through either retaining dividend (in other word increasing their own savings) or financing by foreign savings. The latter is reflected by the current account deficit throughout this period.

The decreased in household savings concerns authorities very much. Various policy measures especially regarding tax incentives have been implemented. These includes reducing tax for savings deposit and contractual savings deposit.

### **3.2 Policy Measures to Promote Financial Assets and Savings**

Having experienced the inadequate domestic savings for many years, Thailand has initiated various poliy measures to support domestic mobilization, most of which were done through tax measures as follows.

1. To promote the mobilization of financial assets, tax system related to financial assets has to be neutralized; that is, any financial assets should be treated equally by tax. The neutralized measures have been so continously performed that up to now, tax treatments imposed on individual income from financial assets have only three rates: 15 per cent for interest income,

10 per cent for dividend income and 0 per cent for capital gain and the savings deposit that its interest income is not exceeding B 20000 each year.

2. To encourage the development of provident fund by improving tax incentives to employee by increasing tax deduction from B 10,000 to B 300,000 each year.
3. To promote small scale depositors, the threshold of the income from savings deposit that is not taxable has been increasing from B 10,000 to B 20,000 each year.
4. To encourage long term contractual savings, the government set the tax incentives for long term deposit account for specific purposes, namely, savings for education, housing and retirement. The incentive consists of the reduction of tax rate on interest income from 15 per cent to 10 per cent.

### **3.3 Empirical Test**

The main emphasis of this part is to determine and assess empirically the taxation impacts on saving. The empirical verification will be performed by constructing the savings function which includes the real interest rate after tax into such function. Then the data of Thailand will be tested in order to see whether the interest rate after tax will affect savings.

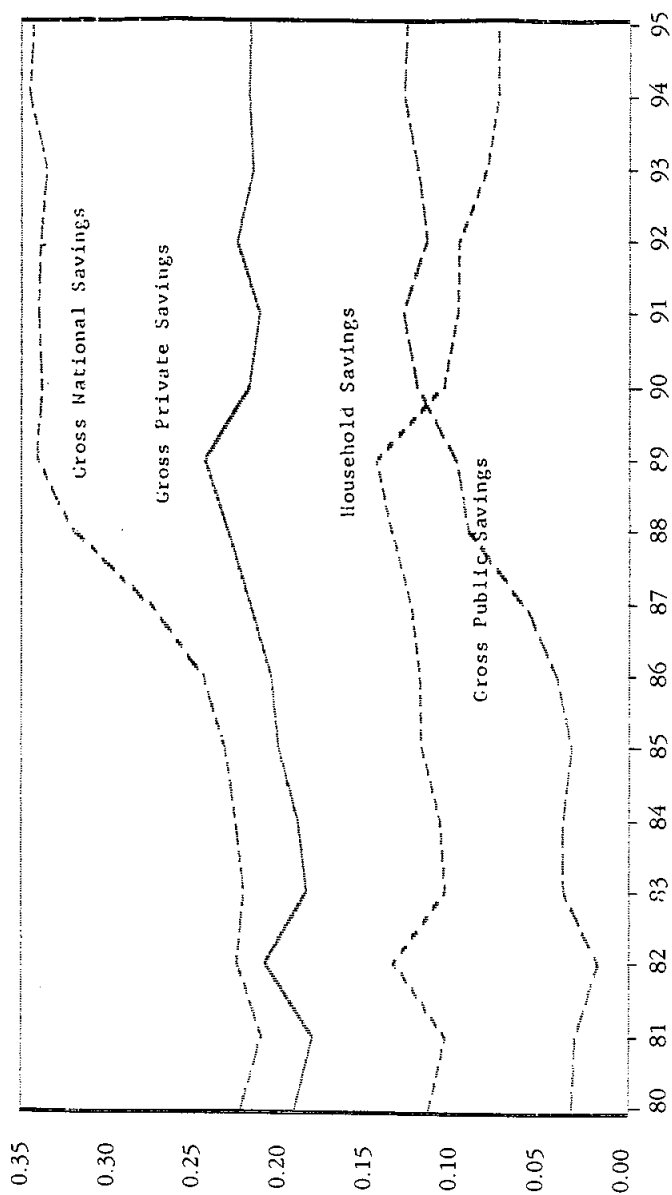
To construct savings function we need theoretical framework to support the rationale behind the savings function. In this study, the life cycle hypothesis will be used to develop the savings function.

### **3.4 Theoretical Framework**

The life-cycle hypothesis views individuals planning their consumption and savings behavior over long periods with the intention of allocating their consumption in the best possible way over their entire life time.

Chart 12.1

**SAVINGS IN PROPORTION TO GDP**



The life cycle hypothesis views savings as resulting mainly from individual desire to provide for consumption in old age<sup>1</sup>.

Consider a person who expect to live for N years, works and earns income for W years and retire for (N-W)<sup>2</sup> years.

Labor income of individual is Y and C represents consumption. Therefore the individual life time income is :

$$Y \times W \dots\dots\dots (1)$$

Basing on the life-cycle hypothesis the individual income of his life time are allocated such that he has a smooth flow of consumption.

In addition the consumption over lifetime can not exceed the lifetime income that is;

$$C \times N = Y \times W \dots\dots\dots (2)$$

Dividing equation (2) by N we get planned consumption per year of individual which is proportional to income he earned as follow:

$$C = \frac{W}{N} \times Y \dots\dots\dots (3)$$

Equation (3) may be interpreted that each year the fraction  $\frac{1}{n}$  of life time income (Y x W) will be consumed. In addition, it confirms that according to life-cycle hypothesis, consumption or in other word savings are the function of life time income rather than the current income which were proposed by Keynes.

To derive savings, we know that savings are the part of income that is not spent.

$$S = Y - C = Y - \frac{W}{N} \times Y$$

1. Rudiger Dornbusch and Stanley Fischer, *Macroeconomics* (Singapore, Mcgrawhill, 1990) P. 265.  
2 . Assuming the year 1, is the first year of work.

or

$$S = Y \times \frac{(N - W)}{N} \dots\dots\dots (4)$$

Equation (4) is the savings function of the individual over the course of their life times. What we need is the aggregate savings function. First we consider the individual group aged  $a$ , at the given period of time, he will save in proportion to his life time resource equal their income minus consumption or:

$$S_y(a) = Y_y(a) - C_y(a)$$

Let  $V(a)$  is the ratio of life time resources of individual group aged  $(a)$  to aggregate real income.

$V(a) \times S_y(a)$  is therefore the total savings of individual group aged  $(a)$  as a fraction of aggregate real income. The aggregate savings rate is derived by summing across all age groups:

$$S_y = \int V(a) S_y(a) da \dots\dots\dots (5)^3$$

$V(a)$  in the steady-state growth is constant over-time, and may be defined as:

$$V(a) = V(0) e^{-ga} \dots\dots\dots (6)$$

Based on equation (5), the aggregate savings may be influenced either through the economy's growth rate, the demographic factors, the composition of the population age or consumption (or savings) mean. Because the younglings will save exceeding the older dissaving, the economy with either dynamic growth or with more proportion of younger will tend to have more aggregate savings. In addition the real rate of return on financial assets also affect the aggregate savings function through the changing of consumption mean. An increase in real return after tax which the people receive raise the relative price of current to future consumption. If the substitution effect outweighs

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3. Maxwell J. Fry, Money, Interest and Banking in Economic Development, (Baltimore: The John Hopkins University Press, 1991) P.47.

the income effect, then the savings rate rise. Theoretically, it is possible that the income effect may outweigh the substitution effect, then the savings may decline. The real rate of interest also influences the relative price of bequests. Thus a rise in the real rate of interest may reduce the level of lifetime consumption.

That is, based on life cycle hypothesis the aggregate savings function may be written as:

$$S_y = F(g, DR, RR) \dots\dots\dots (7)$$

where

Aggregate real savings ( $S_y$ ) will be proxied by a private gross savings in proportion to GDP

- $g$  = Economic growth rate
- $DR$  = Demographic factors, they may be represented by either dependency ratio which is measured by the proportion of the population aged less than 15 and over 64 to total population or the proportion of non-agriculture output to total output
- $RR$  = Real interest rate (after adjusted inflation) after tax.

The expected sign of the equations are as follows<sup>4</sup>:

<b><i>Variable</i></b>	<b><i>Expected sign(s)</i></b>
Economic Growth ( $g$ )	+
Dependency Ratio ( $DR$ )	-
Non-agriculture to Total Output Ratio	+
Real Interest Rate after Tax	+, -

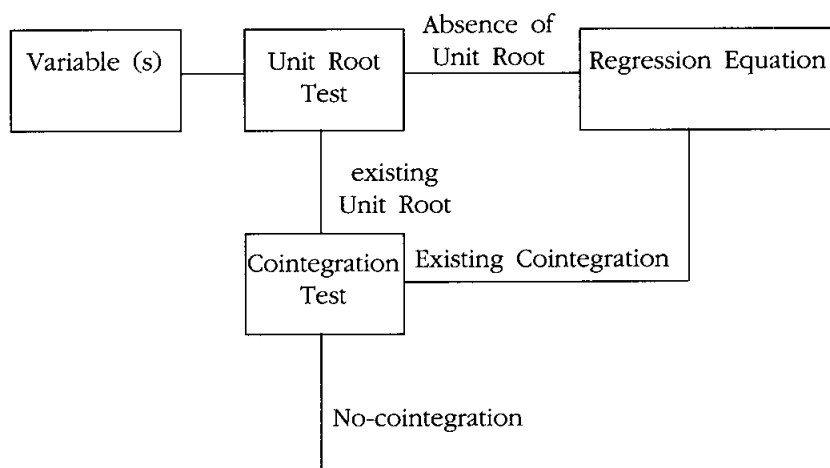
4. Data are available yearly from 1980 - 1995, except those of  $DR$  and  $rr$  which are available from 1972 - 1995.

## Estimation Process

To strengthen the results of the study and protect the spurious relationship, the unit root and cointegration test will be applied throughout the estimation process. That is the variables in the regression should be either absence of unit root or existing unit root but holding cointegrating nature within the tested equation.

**Figure 12.2**

### ESTIMATION PROCESS TO PROTECT SPURIOUS RELATIONSHIP



## Unit Root Test

Each of the variables has tested for unit root. The Augmented Dickey Fuller (ADF) will be used for the unit root test. The ADF test consists of running a regression of the first difference of the series against the series lagged once, lagged difference term (and optionally a constant and a time trend).

$$\Delta X = a_0 + a_1 T + a_2 x_{t-1} + \sum_{i=1}^p a_i \Delta x_{t-1} + u_t$$

T is the time trend and the inclusion of  $a_0$  and T is optional. The test for a unit root is a test on the coefficient of  $X_{t-1}$ . If the coefficient of  $X_{t-1}$  is significantly different from zero then we reject the hypothesis that X contains a unit root. That is, we accept the hypothesis that X is stationary. TSP version 7 provide us both the ADF t-statistic and the critical value (called Mckinnon critical values) to determine whether the coefficient of  $X_{t-1}$  is different from zero. The results of unit root test is presented in Table 12.3.

**Table 12.3****ADF-TEST**

Variables	ADF t-stat	Mckinnon Critical Value at 5% Significant Level	Unit Root
Sy	-2.93	-3.61	Yes
G	-2.85	-3.62	Yes
DR	-3.24	-3.62	Yes
NONAGR	-2.24	-3.62	Yes
RR	-4.17	-3.62	No

According to Table 12.3, with an exception of real interest rate after tax, all variables contains unit root; that is, they are not stationary. Their mean and variance will be not constant and fluctuate along the time. Regressing them by the traditional OLS, the parameter we estimate will be less reliable.

In any case, given the data contain unit root, the parameter we estimated may be reliable if we can find their long term or cointegration relationships. Theoretically cointegration relationship will exists if independent variables and dependent variables are regressed and their residual did not contain unit root. First we regress ;

$$Y_t = a_0 + a_1 X_t + Z_t$$

Then testing their residual ( $Z_t$ ) to check as whether it contains unit root.

$$Z_{(t)} = a_0 + a_1 T + a_2 Z_{t-1} + \sum_{i=1}^p a_i \Delta Z_{t-1} + U_t$$

Again cointegrating relationship is tested on the coefficient of  $Z_{t-1}$ . The integration test results are provided by TSP version 7 which are expressed in Table 12.4.

**Table 12.4**

**COINTEGRATION TEST<sup>5</sup>**

Variable Group	D.F.T-stat.	Mckinnon critical value at 5 per cent level of significance	Cointegration Relationship
Sy, g, Dr	-5.13	-5.05	yes
Sy, g, Nonagr	-5.19	-4.41	yes

The savings function that we would estimate are:

1.  $\frac{S}{Y_t} = a_0 + a_1 G_t + a_2 DR_t + a_3 RR_t + U_t$
2.  $\frac{S}{Y_t} = a_0 + a_1 G_t + a_2 NONAGR_t + a_3 RR_t + U_t$

The estimation results of the two equations are expressed in Table 12.5.

5. In practise, a number of variables were employed; nevertheless, only two equations are found to be cointegrated.

The empirical results confirm that savings pattern could be fairly explained by the life-cycle hypothesis. The second equation differs from the first equation only the differences of the demographic variable used. The former equation represents the demographic nature by the dependence ratio while the latter represented by the ratio of nonagriculture output to total output. The results of the two equations are congruent. The growth rate affects savings significantly in both equations. One per cent income of economy growth rate will affect the savings in proportion to income by 0.0046 per cent in equation (1) and 0.0043 per cent in equation (2).

**Table 12.5**

**ESTIMATION RESULTS**

		<b>Constant</b>	<b>g</b>	<b>DR</b>	<b>Nonagr</b>	<b>RR</b>
<u>Equation 1</u>						
Coefficient		0.2094	0.0046	-0.9571	-	0.0003
S.D.		0.38	0.0011	0.08	-	0.0006
t-stat		5.49	4.33*	-1.13	-	0.53
DW	=	2.88				
R <sup>2</sup> - adjusted	=	0.65				
F	=	10.25*				
<u>Equation 2</u>						
		<b>Constant</b>	<b>g</b>	<b>DR</b>	<b>Nonagr</b>	<b>RR</b>
Coefficient		0.7348	0.0043	-	0.12	0.0063
S.D.		0.07	0.001	-	0.93	0.0006
t-stat		1.01	3.72*	-	1.29	0.59
DW	=	2.81				
R <sup>2</sup> - adjusted	=	0.66				
F	=	10.65*				

\* Significance at 5 per cent.

The demographic variables, from both equations show the expected sign. However both of which contain fairly weak t statistics values. The real interest rate after tax coefficient in both equations are very small showing the weak responses of the saving to real interest rate after tax. In addition the t statistics in both equations are very weak which are not rejected at 5 per cent level of significance. Tax effect on savings is still ambiguous.

## **IV. Conclusion and Policy Recommendations**

### **4.1 Conclusion**

As a whole tax imposed for financial assets in Thailand may be said neutralized. Only the rates 0,10,15 are imposed on different financial assets. Most of the interest rate income from financial assets are taxable at uniform rate of 15 per cent. The zero per cent are specifically reserved for special activities which are promoted by the Government, such as, the small scale depositors. The ten per cent rate are imposed for dividend income. The empirical tests of taxation impacts on financial assets are also performed. The taxation impacts are assessed through savings function which are constructed based on the life-cycle hypothesis. The real interest rate after tax will be put into the equation as one of the explanatory variables which is expected to affect aggregate savings. According to life-cycle hypothesis the variables affecting savings include economic growth rate, demographic factors and real interest rate.

Before the equation was estimated, variables will be tested for unit root. With an exception of real interest rate after tax, all other variables contained unit root. Savings, economic growth rate and demographic variables were further tested for cointegration test. It is found that these variables are cointegrated. Finally, the relationship of these variable were estimated. The regression results showed that the Thailand's savings function are mainly explained by the effect of economic growth rate while the demographic variable and the real interest rate after tax are found insignificant. In other word, taxation impacts on savings is still ambiguous.

### **4.2 Policy Recommendations**

Based on the study results, tax incentive policies that aims to affect the net interest rate received by savers should be done with cautions.

The interest rate alone may not significantly affects the the consumption mean or aggregate savings especially in the long-run. In order to stimulate savings policy should emphasize on the economic efficiency improvement which will finally affect growth. Such policies include: the human resource development policy, investment efficiency improvement policy, etc. These policies will affect economic growth and hence on savings. More importantly policies geared to affect consumption mean or in other word savings in long-run should be paid more attention. The interest rate policy based on tax incentives alone if not carefully designed, may reduce the public savings which finally reduce the national savings.

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## FINANCIAL INSTRUMENTS IN THAILAND 1/

Financial Instruments	Issuing Institution	Minimum Amount	Characteristics	Maturity	Interest Rates	Secondary Market
1. Deposit Account	Commercial Banks and some Specialised Banks	-	- Savings account - Time-deposit account	3 months, 6 months and 1 year	5% 10.25 - 11.00%	-
2. Treasury Bills (TB)	The Ministry of Finance (The first issued: 1944)	100,000 baht	Treasury bills are a direct obligation of the government however, the Bank of Thailand has been entrusted by the government with the issue & management of the bills. Each week, on Friday, the bills are sold by the central bank to those parties that have submitted the highest prices in a sealed bid auction. The bills are always sold at tender on a discount basis. TB has not been issued since 1989.	63 and 182 days (in the late 1970s, a 7-day treasury bill was offered, but that maturity was later discontinued.)	Primary market: depend on a bid auction. Secondary market: set by the Bank of Thailand.	Apart from being the sole underwriter, Bank of Thailand also serves as a kind of secondary market for TB by selling treasury bills from its portfolio and purchasing treasury bills before they mature.
3. Negotiable Certificate of Deposit (NCD)	Commercial banks, Finance companies and Finance & Securities companies	500,000 baht	Fixed returns and fixed maturity period transfer of CD may be made through endorsement by holder.	3 months - 3 years	Higher than fixed deposit rate	Banks, Finance companies and Finance & Securities companies.
4. Government Bond	The Ministry of Finance (first issued in 1933)	-	Government bonds have not been issued since 1989	-	-	Transfer or pledge permissible cannot be done 1 month before the payment of principle. Cannot be redeemed prior to maturity.
- Investment bond	-	1,000 baht	-	10 years	Depending on the prevailing interest rates during each period. Normally predetermined by the authorities.	-
- Savings bond	-	100 baht	-	6 years and 5 months	Depending on the prevailing interest rates during each period. Normally predetermined by the authorities.	Individual & charitable foundations allowed to trade in secondary mkt. and redeem prior to maturity.

1/ Tax treatment of the major financial instruments refer to Table 12.2.

Financial Instruments	Issuing Institution	Minimum Amount	Characteristics	Maturity	Interest Rates	Secondary Market
5. Bank of Thailand Bond	Bank of Thailand		Special purpose bond to alleviate excess liquidity problem.			
	1. Issued in 1987-1991	100,000 baht	Total bond issued 23,000 million baht	6 months and 1 year	6.0 - 10.125%	1. Commercial banks may transfer or pledge BOT bond at least 30 days prior to maturity, with other commercial banks and the BOT.
	2. Issued in 1995	1,000,000 baht	Total bond issued 20,000 million baht	1, 3, 6 months	Depend on bid auction	2. After 60 days, commercial banks may sell back to BOT may resale them again.
6. State Enterprise Bonds	Electricity Generating Authority of Thailand (EGAT), State Railway of Thailand, Telephone Organisation of Thailand, Housing Authority of Thailand, Department of Waterworks, etc.	In general 100 baht per unit and 1,000 baht board lot	Each issuance must be approved by a committee comprising representatives from the Controller of Currency and Bank of Thailand officials.	3 - 5 years	Pre-determined by the Issuance Committee	Listed in the SET so can be traded with special incentives for finance companies. Holding of State enterprise bond are not included as part of risky assets to comply with risk-asset ratio.
7. Floating Rate Notes	Business and Industrial firms, and Finance institutions.	500,000 baht	A medium term debt instrument issued by any company to lender or purchaser.	3 - 5 years	Benchmark plus margin. Most benchmarks are as 1-year deposit of commercial bank, Citi-note rate, IFCI note rate and LIBOR 6 months. Margin range is usually between 0.25 - 2.0%	Thai Financial syndicate act as underwriter and secondary market.
8. Debentures	Business firms both public companies and non-public companies.	100 baht per unit and value of debenture issued must not exceed net asset value of the company.	A debt instrument which divided into units, each with equal value and a predetermined rate of return, issued by and company to a lender or purchaser, representing the right of holder of such instrument to receive money or other benefit.	1 - 12 years	fixed as well as floating rate	SET, Bond Dealers Club and OTC
9. Convertible Debentures	Public companies only	same as debentures	Added feature of conversion with price conversion ratio conversion period calculation of odd lot and interest rate when conversion exercised.	3 - 12 years	fixed as well as floating rate	SET, Bond Dealers Club and OTC

Financial Instruments	Issuing Institution	Minimum Amount	Characteristics	Maturity	Interest Rates	Secondary Market
10. Common stock	- Listed and authorised companies - Other limited companies	10 baht per share	Shareholders' ownership of the company in proportion to the shares they hold.	1. No redemption period. 2. Right issue for capital increase.	Return based on capital gains and dividend with some dividends paid out as cash, while others paid out as shares in proportion to existing shareholding ratio. (dividend stocks)	1. Listed stocks can be traded in the SET. 2. Other stocks may be traded through finance & securities companies, and direct sale between issuer and investor.
11. Preferred share	- Listed and authorised companies - Other limited companies	Types of preferred shares: 1. Cumulative dividend payment 2. Non-cumulative dividend payment 3. Normal dividend payment & special dividend from common stocks. 4. Normal dividend payment without special dividend from common stocks.	Non-redemption 1. Requires no collateral backing for issuance (unsecured stocks) 2. Issuer stipulates different rights to assets & dividend. 3. Shareholders have no voting right. 4. Issuers may early redeem their stocks at price higher than par value.		Fixed dividend at a certain percentage of share value	SET
12. Unit Trusts	The Mutual Fund Company	10, 20, 100 baht	1. Closed-end fund no redemption of units for 10 years (current yield) 2. Open-ended fund	Dividend of 5% per annum	SET	
13. Warrant	Public companies	According to issuer	1. Right to purchase common stocks at a predetermined price, proportion and within a certain time period. 2. Listed or authorised companies in the SET with no less than 3 years track record. 3. Number of shares exercised by the warrants at any limit must not exceed 30% of registered capital which have been fully subscribed.	1 - 3 years period opened for exercising right must not be less than 3 years		SET, OTC (Sale of warrants attached to underlying stocks)

Financial Instruments	Issuing Institution	Minimum Amount	Characteristics	Maturity	Interest Rates	Secondary Market
14. Commercial Paper - Promissory Note (P/N) - Bill of Exchange (B/E)	Business firms and Finance companies  Business Firms	10 million baht	1. P/N or B/E issued for mobilised fund divided into units, each with equal value  2. P/N or B/E issued for trade credit each unit value is equal to debt.	1, 3, 6 months to 2 years  1 - 3 months	Depend on a bid auction	OTC (Transferring can be made by endorsement by holder)