

Malaysia

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Executive Summary

Malaysia's bond market is the second largest of the Asian developing countries (ADCs) in this study, after the Republic of Korea's. However, in international terms, it is small, representing only about 55 percent of gross domestic product (GDP), and thus far having mainly expanded on account of privatization by the Government of major infrastructure projects. This is poor compared with 90 percent GDP in many developed countries.

The reason is that the funding requirements of the economy and the Malaysian corporate sector have generally been met by the banking sector, as in other developing countries whose financial sectors have matured faster than the nonfinancial sectors.

The Asian financial crisis and its repercussions in 1997/98 showed only too well the vulnerabilities of a system with large funding mismatches, where long-term requirements have been met by short-term borrowings. This points to the need to develop an efficient bond market to reduce heavy re-ent in 1986 (caused by massive development funding). The external debt position continued to rise in 1999, but the pace of increase moderated considerably.

Originally, Malaysian Government Securities (MGS) were issued to meet the investment needs of the Employees' Provident Fund (EPF), but were extended in subsequent years to fund budget deficits, in part reflecting increasing public development expenditure. Satisfying these two needs drove public debt continuously upwards, with outstanding MGS rising to RM67.01 billion in 1998 and RM78.33 billion in 1999. Trading volume in MGS averaged RM4.9 billion per month in 1999, which is not very large compared with recent transactions in the Malaysian equities market.

The corporate bond market, on the other hand, which involves the issuance of private debt securities (PDS) by the Malaysian corporate sector, really made its debut with the establishment of the National Mortgage Corporation, Cagamas Berhad in December 1986. Cagamas

was incorporated with the primary aim of developing a secondary mortgage market to assist banking institutions in need of liquidity or funding to find refinancing for their mortgage loans. Before the establishment of Cagamas, there were a few corporate bond issues, but they were small and infrequent.

However, given the increase in corporate credit risks in current market conditions, with investors wary of corporate defaults, trading volumes for the MGS have been high, with the trading of listed corporate bonds considerably reduced. There has also been a sharp fall in the issuance of PDS by the Malaysian corporate sector, exacerbated by reduced investment spending and uncertain investor interest.

Increasingly, development of the corporate bond market is recognized as the way forward for both business and investors. This market will play an important role in the next phase of Malaysia's development in the next millennium, pointing to a need to develop a bond market that is efficient and has depth and breadth.

Essentially, a developed bond market will offer companies an alternative source of financing, providing flexibility for long-term projects to be funded by long-term funds. It will also create an opportunity for Malaysian corporations to manage their capital structure more optimally.

From the investors' viewpoint, bond issuance will be an alternative form of investment, assist with diversification of opportunities, and help to mobilize savings towards a more efficient allocation of resources. Hopefully, it will also lead to the development of a secondary market that allows bondholders to trade and make bond instruments marketable and liquid, similar to equity stocks.

The secondary market for bonds in Malaysia is not as well developed as the primary market. Not many issues are traded, and information on daily volume and prices is not readily available as compared, for example, with equity trading. The lack of information is mainly attributable to the fact that the secondary trading of Malaysian bonds is essentially undertaken over-the-counter (OTC) and not in an organized exchange, although a few corporate bonds are traded on the Kuala Lumpur Stock Exchange (KLSE).

Until recently, inactivity in the secondary market has been due to limited and irregular supply, with most issues being taken up by a captive market. This may be resolved, however, with the recent increase in government bond issues over corporate debt securities—understandable in view of the Government's efforts to spur economic recovery, and because the corporate sector in the aftermath of the Asian financial crisis has had problems in meeting its debt obligations, or is in the midst of restructuring. There has also been an appetite for government securities

because institutional investors, wary of corporate credit risks, find them preferable—despite their lower yields—in light of the certainty that there can be no default in government securities.

The increase in the supply of government bonds may result in a more reflective yield curve, and it is important that they take on the role of benchmarker. Benchmark securities should have a regular and predictable issuance schedule with a whole spectrum of maturities, should be actively traded, very liquid, and responsive to market conditions. While not risk-free, the risk should be stable, predictable and easily assessable. Having a reliable benchmark, the corporate bond market would be able to come out with an array of its own issues, with risk premia based on how they rank against the government securities, and eventually flourish.

The investor base in the Malaysian bond market is mainly comprised of banks and asset and pension funds, as certain institutional investors are required by statute to invest a portion of their total funds in government securities (designated as liquid assets). For example, provident and pension funds are required to invest a minimum of 50 percent of their total investible funds in such securities. The largest of these is the EPF.

This requirement has many advantages for the economy. It allows fixed-rate cheap fund-raising for the country's development needs, and allows the Government to flexibly structure the maturity profile of its debts to match the tenor of its financing needs. It also gives the Central Bank—Bank Negara Malaysia (BNM)—an effective tool to manage the level of market liquidity, thereby influencing and setting the level of interest rates.

It provides a safety net in case of unexpected demands for liquidity, giving depositors some protection for their monies, increases confidence in the banking institutions, and offers a reasonable return on investments over the average inflation rate.

However, it also results in a captive market for bonds, creating artificial demand that distorts yields. These bonds are inevitably locked up and held until maturity, especially by the pension funds, further inhibiting the development of a secondary market. In the absence of an effective hedging instrument, this passive portfolio management may also lead to a higher risk profile of the mandatory holders of the bonds.

The current dominance of the financial institutions and large pension funds ignores the needs of retail investors in search of secure long-term investments—even though the minimum denomination for government bonds is set at RM1,000.00.

Areas for Further Development

In terms of further development of the primary market, problem areas to be addressed mainly relate to market demand, such as irregularity of bond offerings, unattractive coupons, and relatively large denominations for retail investments for government bonds. For corporate issues, there is the additional problem of delays and complex and costly procedures to be met before offerings are made. Unless these issues are adequately addressed, the potential growth of the market as an increasing and important channel for raising capital funds by corporations will not be maximized.

With regard to fiscal policy and management, government securities issuances should not be at the beck and call of fiscal surpluses or deficits, as this creates volatility.

If government securities are to serve as benchmark securities in the development of a mature bond market, then a regular program of issuances with a whole range of maturities should be scheduled to allow a true yield curve to develop.

Distortionary features in the tax structure, in BNM regulations, and in the market itself should be resolved. There should be a review of the existing legal and regulatory framework, and the apparent dichotomy in the development of the government and corporate bond market should be gradually closed. The formal standards of practice and convention that have been drawn up for MGS, and the setting up of modern and efficient settlement and tendering systems, are steps in the right direction.

I. Fiscal Policy and Management

The fiscal policy of the Malaysian Government is broadly designed to promote the efficient allocation of resources, the distribution of income and wealth, and economic stabilization.

The Government provides public goods and services, such as education and health care. It distributes income and wealth between different income groups, regions, and states by means of taxation, transfer payments, and subsidies. It aims to maintain high employment, price stability and an acceptable rate of economic growth, while reducing economic instability.

Levels of government participation in the economy have changed over time, however. In the early years of development, it was very limited, but this changed significantly in 1970 with the introduction of the New Economic Policy (NEP). This aimed for ethnically equitable poverty reduction and economic progression through the restructuring of Malaysian

society. Fiscal spending for development purposes, such as infrastructure and health, began to increase rapidly.

During this period, as part of its distribution objective, the Government started to intervene directly in the productive sectors of the economy, mainly through the establishment of large state commercial enterprises.

Total government expenditure during the NEP period constituted close to 50 percent of GNP at its height in 1981. This represented a large government presence in Malaysia's economic activity—much larger than in many neighboring countries.

By 1982, as a result of the Government's unprecedented expansionary policy, the broad public sector fiscal deficit and external current account shortfall had climbed to 19 percent and 14 percent of GNP, respectively. At the government level, the shortfall was also large at 17.5 percent. The deficit was financed through domestic and external borrowings, so that by the mid-1980s the external debt/GNP ratio of the broad public sector had reached a record high of 137 percent. The further softening of commodity prices in the mid-1980s and rising global interest rates, however, forced deep cutbacks in public programs, which ultimately contributed to the recession of 1985/86. Table 1 shows government sector finance from 1990 to 1999, as well as the official projection for 2000.

TABLE 1
Federal Government Finance
(RM billion; percent of GNP)

Year	Current Revenue		Current Expenditure		Current Surplus/Deficit	
	Amount (RM billion)	Percent of GNP	Amount (RM billion)	Percent of GNP	Amount (RM billion)	Percent of GNP
1990	29.5	25.9	25.0	21.9	4.5	3.9
1991	34.1	26.5	28.3	22.1	5.8	4.5
1992	39.3	27.5	32.1	22.5	7.2	5.0
1993	41.7	25.4	32.2	19.7	9.5	5.8
1994	49.4	26.6	35.1	18.8	14.4	7.7
1995	51.0	24.0	36.6	17.2	14.4	6.8
1996	58.3	24.1	43.9	18.1	14.4	6.0
1997	65.7	24.6	44.7	16.7	21.1	7.9
1998	56.7	21.1	44.6	16.6	12.1	4.5
1999 ^a	56.7	20.2	48.9	17.4	7.8	2.8
2000 ^b	59.9	20.2	52.4	17.7	7.5	2.6

^a estimate; ^b forecast.

Source: Ministry of Finance.

This forced the adoption of various anticyclical measures. The Government also decided to promote greater private sector involvement in economic growth, while emphasizing its own role as a catalyst for development through the provision of fiscal direction and incentives. This policy prevailed through the 1990s.

The NEP was replaced in 1990 by the National Development Policy (NDP) (1991–2000). While the NEP had formally set targets to remove poverty and ethnic differences in access to jobs and wealth, the NDP aimed to bring about balanced development less dependent on rigid quotas.

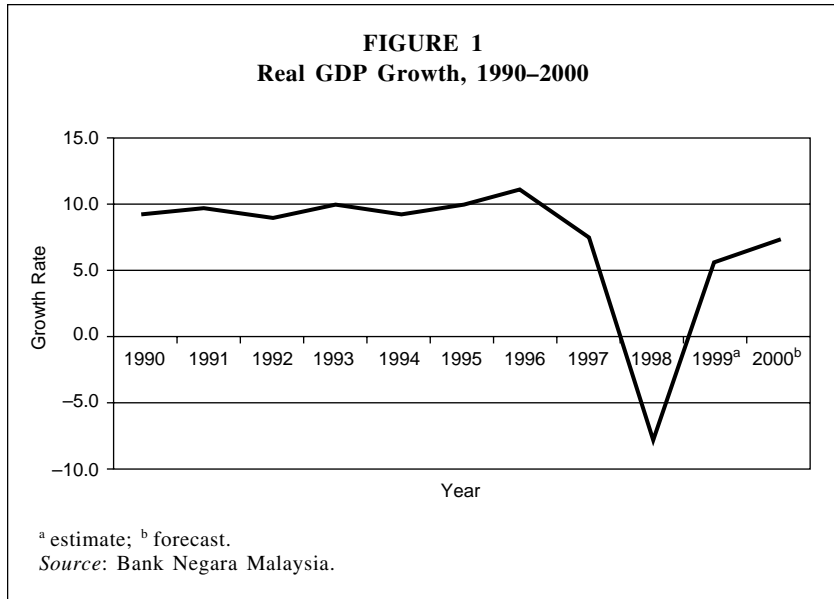
Continued pruning of public expenditure greatly improved the fiscal position. In the six years following the 1985/86 recession, the Government enjoyed falling fiscal deficits from 11.2 percent in 1986 to only 0.9 percent in 1992. The broad public sector also charted a spectacular improvement, with overall deficit falling from 10.1 percent to 2.7 percent during the same period. In the following years, and up to 1997, the overall financial position of the Government posted five consecutive years of surpluses ranging between 0.2 percent and 2.5 percent of GNP.

The fiscal position prior to 1997 brought about declining indebtedness, narrower external current account deficits, a stable exchange rate, and negligible inflation, which together enhanced business confidence. With the inflow of private long-term capital, foreign direct investments (FDI) increased sharply, resulting in real GDP growth exceeding 9 percent per year from 1988 to 1997.

During the Asian financial crisis, the Government once again adopted countercyclical measures to revitalize the domestic economy and support the private sector. These measures, together with selective capital controls, helped the economy to make a quick turnaround, with real GDP expected to record a growth of more than 5 percent in 1999, compared with negative 7.5 percent in 1998.

Nonetheless, revenue declined substantially as the result of the expansionary fiscal package designed to revive domestic spending. The Government's overall account registered a deficit of 1.9 percent of GNP in 1998, which widened in 1999, although it was still less than 5 percent of GNP.

Malaysia's past experience thus underlines the importance of maintaining macroeconomic stability by avoiding large fiscal deficits.



A. Government Revenue

Broadly, government revenue comprises: (i) tax revenue; (ii) nontax revenue, and (iii) nonrevenue receipts. Tax revenue consists of direct and indirect tax revenue, and accounts for more than 75 percent of total revenue. Direct tax revenue includes revenue from personal and corporate income tax, petroleum income tax, stamp duty, and real property gains tax, while indirect tax revenue consists of revenue from export and import duties, and sales tax on certain goods and services.

Nontax revenue consists of receipts from licenses, registration fees and permits, service fees, proceeds from sales of goods, rentals, interest and returns on investments locally and from foreign countries, fines and forfeitures and contributions, and compensations from foreign governments and international agencies. Nonrevenue receipts, which include refunds of expenditure, receipts from government agencies and revenue from the federal territories represent a minor fraction of total revenue. Table 2 shows the revenue trend of the federal Government since 1990.

TABLE 2
Federal Government Revenue, 1990–2000
 (RM billion and percent share)

Year	Total	Direct Taxes		Indirect Taxes		Non-Tax Revenue	
	Revenue	Amount	%	Amount	%	Amount	%
1990	29.5	10.4	35.2	10.8	36.7	8.3	28.0
1991	34.1	13.3	38.9	12.6	36.9	8.2	24.1
1992	39.3	15.4	39.2	13.4	34.1	10.5	26.7
1993	41.7	17.1	40.9	14.8	35.6	9.8	23.5
1994	49.4	20.2	40.8	17.3	35.0	12.0	24.2
1995	51.0	22.7	44.5	19.0	37.2	9.3	18.2
1996	58.3	25.9	44.4	21.4	36.8	11.0	18.9
1997	65.7	30.4	46.3	23.2	35.3	12.1	18.4
1998	56.7	30.0	52.9	15.3	27.0	11.4	20.1
1999 ^a	56.7	26.9	47.5	17.5	30.8	12.3	21.7
2000 ^b	59.9	29.1	48.6	18.5	30.9	12.3	20.6

^a estimate; ^b forecast.

Source: Ministry of Finance.

B. Government Expenditure

Federal government expenditure is divided between current or operating expenditure and development expenditure. The former generally accounts for between two thirds and three quarters of the Government's total expenditure. The major components of current expenditure are government employees' salaries, expenditure on goods and services, servicing of the public sector's domestic and external debt, and transfer payments. (Appendix A.5)

The Government provides public goods and services such as defense, law and order, and roads, in line with public demand and population growth. Large and increasing allocations are made for infrastructure development, education, and health care.

The role of Government in the social sectors has been guided by the impact of public expenditure on outcomes. Among such expenditure, health and education have been of central importance. Public expenditure has the greatest impact in improving health and education—areas that are clearly characterized by market failure. Together, these accounted for about 25 percent of government expenditure in the 1990s, the largest single category in the national budget. The huge progress made in education and health conditions has indirectly enhanced the nation's human resources and manpower development.

Goods that enjoy increasing returns to scale, which give rise to

natural monopolies, such as water, electricity, and telecommunications, are provided by government agencies. However, the Government has moved to corporatize and privatize some of these services since the 1980s.

Government spending was particularly high during the NEP, with responsibilities ranging from poverty alleviation and investment in health and education to employment generation in government services and nonfinancial public enterprises (NFPEs).

Many NEP public programs were successful, however. The incidence of poverty and the infant mortality rate dropped sharply, and ethnic differences in terms of years of schooling, wealth distribution, and access to modern sector jobs have been reduced. Moreover, social sector expenditures were well targeted, with the poor receiving the bulk of public subsidies.

Malaysia maintained a balance in its investment programs for physical and human capital, resulting in sustained income growth. In the 1990s, the NDP's priorities of sustaining this growth momentum required increasing those components of public expenditure that strengthen private investment, and reducing those that retard it. Public expenditure on infrastructure, including health and education, rose sharply and this was a major factor in stimulating private investment.

However, Malaysia has successfully trimmed the rapid growth in current expenditure it experienced in the 1980s, with current expenditure growth lowered from 13.3 percent between 1981 and 1985 to 7.2 percent between 1986 and 1998. This was achieved primarily through a sharp reduction in the civil servant salary rises and public debt charges. Development expenditure expanded by 10.4 percent between 1986 to 1998.

C. Privatization

A major element of the Government's restructuring programs was privatization, particularly of the NFPEs, implemented in 1983.

Savings in capital expenditure from privatized projects amounted to RM129.1 billion between 1983 and 1998. The sale of assets and equity under the privatization programs generated proceeds of RM21.5 billion. While the financial performance of privatized entities was enhanced, and positive changes instituted in terms of organization and management, the programs also benefited the country through increased revenue from corporate taxes.

The employment generation objective, for which the NFPEs were originally set up, has been met through growth in private investment, principally foreign direct investments (FDIs). Hence, the administrative burden of the Government in terms of recruitment, promotion, and training

of personnel has been further reduced. Between 1983 and 1998, a total of 105,825 government employees were transferred to the private sector. Rising demand for infrastructure was also addressed through the privatization of national utility companies and projects.

D. Financing of Fiscal Deficits

The financing of government activity until the early 1980s came primarily from noninflationary sources, particularly in the form of captive savings in the EPF. As a result of countercyclical measures taken in the early 1980s, however, there was increasing reliance on foreign financing to fund development expenditure, which was increasing rapidly while domestic revenue growth was sluggish following the liberalization of taxes and the dampening impact of income and commodity prices caused by world recession.

Consequently, government external debt rose significantly from RM8.3 billion in 1981 to RM28.3 billion in 1986. Overall, the nation's external debt also increased sharply, rising to RM42.5 billion by the end of 1985 from RM10 billion in 1980. At the same time, the debt service ratio soared to close to 16 percent in 1985 from just 4 percent in 1980. Such a situation, with the marked increase in development expenditure, was clearly unsustainable.

To deal with its rising debt problems, the Government embarked on a multiyear structural adjustment program to ensure orderly growth of the nation's external debt, and to provide room for the private sector to thrive. In 1983, it also introduced the first in a series of budgets to reduce overall public sector deficit to sustainable levels as a proportion to GNP.

The fiscal adjustment package included measures to consolidate the financial position of the NFPEs and improve revenue collection, while privatization of major public sector enterprises was actively pursued. The Government's financial position improved markedly—to the extent that it could afford to prepay some of its external borrowings, improving the nation's debt profile. With continued restraint on new borrowings, the Government's external debt fell from a high of RM28.3 billion in 1986 to RM10.5 billion in 1996.

The domestic borrowing position also improved in the 1990s, reflected by the average increase of 2.9 percent per annum in outstanding debt from 1989 to 1996. The Government's domestic borrowing program prior to 1997 was mainly designed to accommodate market demand for MGS and to provide a benchmark yield curve to support the development of a domestic bond market.

The shift in government policy in the mid-1980s led to the capital market emerging as the country's prominent financing intermediary, illustrated by the unprecedented volume of papers issued by the private sector amidst a diminishing supply of government papers. Net funds raised by the Government declined progressively over the years, from RM20.1 billion, or 77 percent of total funds raised, between 1981 and 1985 to RM7.6 billion, or 10.8 percent, between 1991 and 1996.

TABLE 3
Federal Government Domestic Debt, 1990–2000
 (RM billion and percent share to total)

Year	Total Domestic Debt	Treasury Bills		Government Securities		Investment Issues		Other	
		Amount	%	Amount	%	Amount	%	Amount	%
1990	70.0	4.3	6.2	62.1	88.7	0.9	1.3	2.7	3.8
1991	73.7	4.3	5.9	65.3	88.6	0.9	1.2	3.2	4.3
1992	76.1	4.3	5.7	66.6	87.6	1.0	1.3	4.1	5.4
1993	76.5	4.3	5.6	66.0	86.3	2.0	2.6	4.2	5.5
1994	78.3	4.3	5.5	65.0	83.0	4.8	6.1	4.2	5.3
1995	78.0	4.3	5.5	64.7	82.9	5.1	6.5	3.9	5.1
1996	79.2	4.3	5.5	66.9	84.5	4.2	5.2	3.8	4.8
1997	77.0	4.3	5.6	66.3	86.1	2.8	3.6	3.6	4.7
1998	88.2	4.3	4.9	75.0	85.1	2.0	2.3	6.9	7.8
1999 ^a	94.3	4.3	4.6	82.3	87.4	2.0	2.1	5.6	5.9

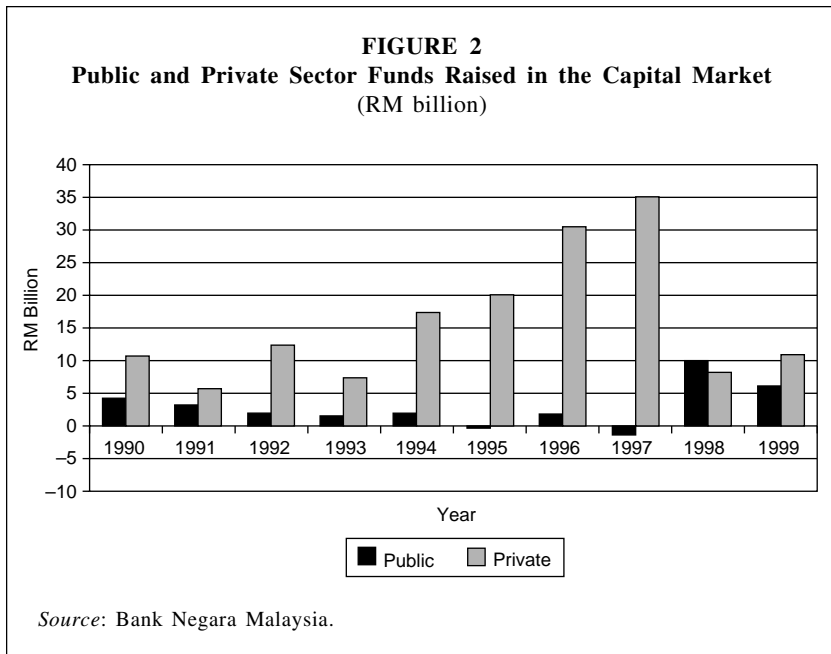
^a MOF estimate.

Source: Ministry of Finance.

In contrast, the private sector mobilized RM63.1 billion, or close to 90 percent of total net funds raised from the capital market between 1991 and 1995, up from RM6 billion, or 23 percent of total funds raised from 1981 to 1985.

In the equities market alone, privatized projects accounted for more than one-half of total funds raised through the initial public offerings (IPO) from 1990 to 1996. The presence of privatized companies in the PDS market was also significant, with total funds raised amounting to RM12 billion or 28 percent of total bond issues in the 1993 to 1996 period.

The fund issuance pattern in the capital market, however, changed dramatically following the 1998 recession, largely due to investor concerns over the financial health of corporations, the weak sentiment in the stock and bond markets, and uncertainties over the impact of the global financial market turmoil.



The public sector was responsible for 55 percent, or RM9.8 billion, of net new funds raised in the capital market (a redemption of RM1.4 billion in the previous year), compared with 45 percent or RM8 billion by the private sector (RM35 billion in 1997), reflecting the lead role played by the Government in reviving economic activities.

The Government was forced to adopt an expansionary fiscal policy stance, financing its expenditure deficit from domestic sources and, to some extent, external sources.

Spending greatly outpaced revenue growth, and as a result the Government's total domestic debt increased by 14.6 percent from a year earlier to RM88.2 billion at the end of 1998. The rise in external debt was even bigger, rising by 42.5 percent in 1997/98 to RM14.9 billion, as the ringgit depreciated sharply against the major world currencies.

The total debt of the Government (domestic and external) as a percent of GNP rose to 38.3 percent in 1998 from 33.7 percent in 1997. Nonetheless, the ratio was still significantly low compared with the peak of 110.5 percent in 1986. This rising external debt position continued in 1999, but the pace of increase moderated considerably.

II. Monetary Policy and Management

Malaysia's monetary policy is defined and implemented by BNM, the Central Bank, which is one of the five statutory bodies below the Ministry of Finance (MOF). BNM's principal macroeconomic objective is to promote a sustainable rate of output growth, consistent with domestic price and exchange rate stability.

A. Historical Overview

Malaysia's monetary policy has varied with the move from NEP to NDP. Policies in the early 1980s were selectively restrictive, allowing for a gradual increase in interest rates and discouraging the extension of credit by the banking system for nonproductive and speculative activities.

From 1983 to 1986, BNM's monetary policy became expansionary, as conditions in the money market were extremely tight. BNM was, especially in 1986, confronted with the conflicting objectives of maintaining stability in the exchange rate and reducing interest rates in the money market. Monetary policy, however, turned neutral in 1987/88 as liquidity conditions in the system improved significantly amidst price stability.

The period from 1989 to 1996 was characterized by prolonged economic growth, averaging 9.5 percent per annum. Simultaneously, money supply expanded strongly to double digit rates, well above the average rate of economic growth. This increase was a major factor in creating high economic growth, near full employment, and the emergence of excess demand, which began to impose a tremendous pressure on the economy in terms of prices, labor, infrastructure, balance of payments, and speculative activity. The Malaysian economy was clearly showing signs of overheating.

With high demand for credit, and substantial inflows of capital into the stock and other markets, monetary policy had to strike a balance between the need to reduce excess demand while avoiding any sudden impact on the general economic situation which would disturb the business climate and confidence.

BNM gave priority to sustaining high economic growth. Monetary policy remained easy, and bank credit and money supply continued to expand, while selective measures were taken to control the strong inflow of short-term foreign capital.

While speculative funds began to unwind and flow out of the country in 1994, price and other pressures brought about by excess aggregate demand continued to prevail.

B. Postcrisis Policy

The conduct of monetary policy from 1997 to 1999, on the other hand, underwent two distinct and opposing phases. Until 1998, the Malaysian economy went into a recession induced by sudden capital flight and a highly volatile and weak ringgit, caused by currency speculation. Malaysia was caught by the contagion effect, which had spread from Thailand.

Monetary policy was gradually tightened, causing interest rates to rise steeply while bank credit was drastically curtailed. Huge cutbacks in fiscal spending were also enforced. The effects of public policy appeared unsuccessful in pulling the economy out of recession, however. The authorities therefore decided to reverse this policy response in the second half of 1998, and imposed selective exchange controls and a fixed exchange rate for the Malaysian ringgit.

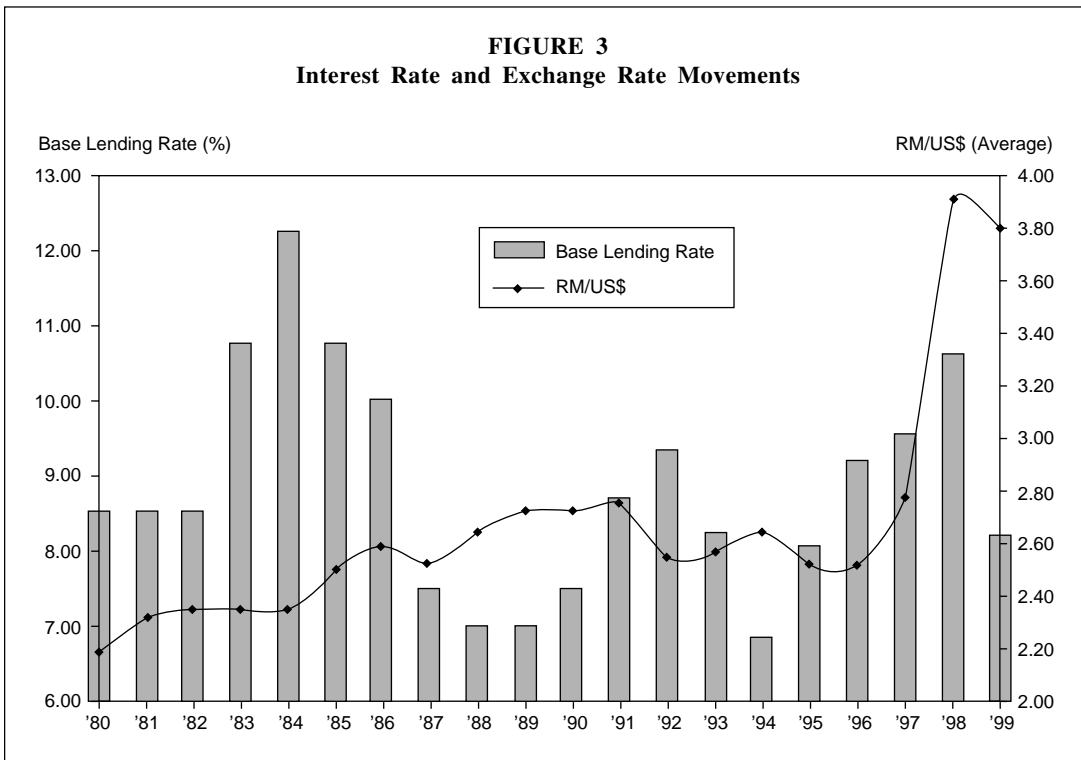
To reduce interest rates, additional liquidity was injected into the banking system via reductions in banks' liquidity ratio and reserve requirements and open market operations (OMO). At the same time, various reforms were instituted in the financial sector, including the recapitalization of the banking sector, through the establishment of the Danamodal bond. Nonperforming loans (NPLs) were restructured through the establishment of Danaharta Nasional Berhad and Pengurusan Danaharta Berhad, to purchase the bad debts of banks. It was also proposed to merge banking institutions into a smaller number of bigger groups.

The Government's policy reversal, designed to contain speculation on the ringgit and minimize the effect of short-term capital flows on the financial markets and economy, also led to controls on the withdrawal of the ringgit from external accounts. This now requires approval, except for the purchase of ringgit assets. The export and import of the ringgit by travelers, together with payments to nonresidents, is also restricted, although this does not apply to trade and direct investment purposes.

Although severely criticized outside, Malaysia's so-called defiance of economic/financial orthodoxy seemed to stabilize the local markets, and liquidity conditions have eased considerably since September 1998.

With liquidity in excess supply, interest rates fell rapidly, in line with the objective of an easier monetary policy. The three-month inter-bank rate, which had stood at a high of 11.3 percent in July 1998, dropped to a low of 3.1 percent from the second half of 1999. This in turn led to a downward movement of the base lending rate (BLR). Compared with its highest level of 12.3 percent in June 1998, the BLR of commercial banks has now fallen to 6.8 percent.

FIGURE 3
Interest Rate and Exchange Rate Movements



Offshore deposits returned. There was some inflow of foreign borrowings and a large external trade surplus. The average growth for the whole of 1999 was predicted to be at least 5 percent.

Meanwhile, inflation eased, largely due to the collapse of aggregate demand, which had built up during the previous 10 years of high growth. While this had some negative effects on output and employment, it reduced pressure on prices. In 1999, inflation averaged just 2.8 percent, as against 5.3 percent in 1998.

On the exchange rate front, the Government is expected to retain the prevailing exchange rate of RM3.80 to US\$1 until the economy has fully recovered and the external payments balance remain in a fundamentally strong position for some length of time.

C. Future Prospects

Malaysia's external position showed a strong positive balance in 1999. The trade surplus registered a new record of RM72.8 billion, more than offsetting the traditional services account deficit, and pushing the current account surplus to an estimated RM55 billion or 20 percent of GNP, compared with RM36.8 billion or 13.7 percent of GNP in 1998. The external reserves were therefore sustained at more than US\$30 billion by the end of 1999, and sufficient to finance more than six months of retained imports, compared with US\$26.2 billion at the beginning of the year.

Prospects in the medium term are relatively encouraging. The economy charted growth of 4.1 percent and 8.1 percent in the second and third quarters of 1999, respectively, after five consecutive quarters of contraction. The improvement began in the first quarter, when real GDP contracted by only 1.3 percent compared with more than 10 percent in the second half of 1998.

Although exports were the principal engine of growth, consumer and investor spending recorded a turnaround, which helped to end the recession. Consumer and investor confidence improved gradually with the return of stability in the local financial markets.

The further improvement in macroeconomic fundamentals and the accelerating momentum in domestic spending were expected to see real GDP growth rising to up to 7 percent in 2000, accompanied by moderate inflation of about 3 percent.

Meanwhile, the current account of the balance of payments was expected to remain in surplus for the third successive year, although at a lower level of RM32 billion, or 10.8 percent of GNP, following rising imports of intermediate and capital goods during economic recovery.

Along with bigger FDI inflows, particularly to the manufacturing sector, and some official borrowings, this would make the external reserves position of BNM comfortable. With the economy still in the recovery phase, interest rates were expected to be kept at the present low levels in the current year.

On the exchange rate front, the Government is expected to retain the prevailing exchange rate of RM3.8 to US\$1 until the economy has fully recovered and the external payments balance remains in a fundamentally strong position for some length of time.

D. Monetary Policy Tools

The principal objective of BNM's monetary policy is to promote a sustainable rate of output growth, consistent with domestic price and exchange rate stability. BNM ensures that growth in bank credit and money supply is adequate to fuel real growth without causing inflationary pressures. To regulate money supply and bank credit, BNM employs qualitative and quantitative monetary policy instruments, depending on prevailing circumstances.

The Central Bank's own securities, Bank Negara bills (BNBs), are issued as a monetary tool for OMO purposes, i.e. to control excess liquidity in the system and meet financial institutions' liquidity reserve requirements. Currently, however, there are no more BNBs in the financial system, as BNM relies more on direct money borrowing to mop up surplus liquidity.

E. Impact of Monetary Policy on the Bond Market

Changes in monetary policy have a major impact on the bond market, as any increase in market interest rates (tightening of monetary policy) leads to a decline in the value of bonds and other fixed-income securities. Conversely, if market interest rates decline, the value of these securities will rise.

Lack of information unfortunately prevents any quantitative evaluation of the impact of monetary policy on the Malaysian bond market during the study period. The impact can be illustrated to some extent, however, by two turbulent periods when interest rates moved drastically; the first from 1983 to 1985, when the base lending rate rose to a high of 11.25 percent, and the second in 1998, when rates were brought down from above 12 percent to the present levels of 6.8 percent. On the first occasion, bondholders (banks, merchant banks, and discount houses) were hit hard by substantial capital losses, while the 1998 event benefited

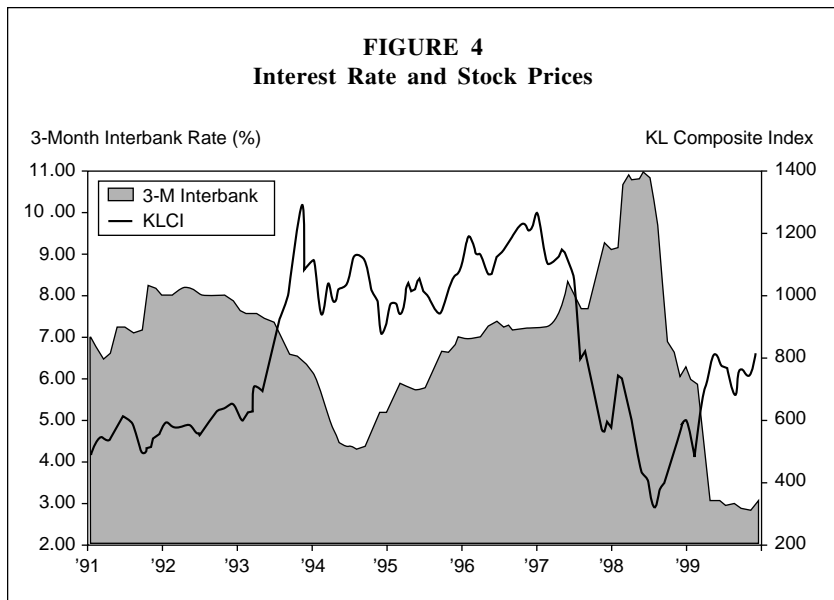
TABLE 4
Monetary Policy Instruments

Instruments	Advantages	Disadvantages
Direct Borrowing/Lending	Useful in circumstances where OMO are constrained by the lack of papers. Can enhance announcement effect of policy rate through regular tender process. Flexible in terms of maturity, amount, rate timing, depending on liquidity condition.	Banks unable to transact in secondary market in managing their liquidity.
Open Market Operations (OMO) (discount window facility)	Flexible in varying maturity, amount, rate, timing, depending on liquidity condition.	Dependent on the supply of government papers.
Reserve Requirement	More useful in one-off sterilization of excess liquidity. Act as buffer to reduce volatility in the short-term interest rate caused by external shocks.	Ineffective if liquidity is unevenly distributed among banks. A high requirement imposes cost on bank intermediation and could lead to a widening of spreads between lending and deposit rates. Not convenient for short-term liquidity management, as frequent changes disrupt portfolio management.
Centralization of Deposits of Federal Government and Employees' Provident Fund with Bank Negara Malaysia	Ensure consistency in operations of the Government and the EPF with monetary policy stance. Reduce liquidity at source.	Not convenient for precise liquidity management as withdrawal decisions are made independently to meet respective financing needs.
Selective Credit and Administrative Measures	Direct impact on lending activities of banks. Will not affect overall liquidity and interest rates.	If implemented over a protracted period, may affect efficient allocation of resources.

Source: The Central Bank and the Malaysian Financial System—Bank Negara Malaysia.

many financial institutions, many of whose treasuries reported substantial profits, realized and unrealized, from their bond holdings.

A potentially important impact of monetary policy is in the relationship between the stock and bond markets. Higher interest rates (exceeding 10 percent, for example) can be bad for stock prices because bonds and other fixed-income investments become more attractive, luring money out of stocks and into bonds. On the other hand, lower interest rates, such as those currently prevailing, should be favorable for stock prices because stocks become relatively more attractive than bonds or savings deposits. See Figure 4 below.



III. Overview of the Bond Market

The Malaysian bond market is the second largest among the crisis economies after the Republic of Korea's, but is small in comparison with developed countries. As of 30 September 1999, the market comprised total outstanding domestic debt of US\$21.7 billion. The maturity distribution was 50.4 percent five to 10 years, 26.6 percent one to five years, 23 percent 10 to 30 years, and the remainder less than one year.

The bond market comprises both government bonds and PDS. Debt issues by government agencies dominate the market (42.6 percent), followed

by Treasury bonds (38.9 percent), and Treasury-bills (5.4 percent). Corporate issues account for only 14.1 percent.

There is a primary (new issue) as well as a secondary market for both government bonds and PDS. Until 1990, the primary market was dominated by government issues, which were offered primarily to institutional investors, notably the EPF and insurance companies, to fulfil their investment needs. Government issues, needless to say, were also made to finance budget deficits and the escalating development expenditure undertaken to promote economic development.

Historically, MGS were issued to meet the investment needs of the EPF, but were later extended to fund budget deficits, in part reflecting increasing public development expenditure. Satisfying these two needs drove public debt continuously upwards, with outstanding MGS rising to RM67.01 billion in 1998 and RM78.33 billion in 1999, which is not very large compared with recent transactions on the Malaysian equities market.

In many developed countries, bond issuance represents more than 90 percent of the country's GDP. Issuance in Malaysia is small by comparison, representing only about 55 percent of GDP, but the volume of growth has been phenomenal, with both the Government and Malaysian businesses turning to the market to raise their funding requirements.

TABLE 5
Outstanding Public and Private Debt Securities
(RM billion)

Year	Government Bonds				Private Bonds			Total
	MGS	GICs	MSB and KBs	Subtotal	Debt Securities	Cagamas	Subtotal	
1991	65.3	1.0	0.0	66.3	5.3	3.9	9.2	75.4
1992	66.6	4.0	1.4	69.0	7.2	4.3	11.5	80.5
1993	66.0	2.0	1.2	69.2	10.0	5.0	15.0	84.2
1994	65.0	4.8	1.2	70.9	15.1	8.9	24.1	95.0
1995	64.7	5.1	1.1	70.9	22.7	9.3	32.0	102.9
1996	66.9	4.2	1.1	72.2	33.5	13.2	46.8	118.9
1997	66.3	2.8	1.9	70.9	46.6	16.8	63.4	134.3
1998	75.0	2.0	18.5	95.5	46.8	15.1	61.9	157.3

Source: Bank Negara Malaysia.

The majority of growth occurred because of privatization by the Government of major infrastructure projects, however, with the funding requirements of the economy and Malaysian corporate sector having largely been addressed by the banking sector.

The Asian financial crisis showed only too well the vulnerabilities of a system that has large funding mismatches, and where long-term requirements have been met by short-term borrowings. This points to the need to develop an efficient bond market, which could offer companies an alternative source of financing, thus providing flexibility for long-term projects to be funded at a fixed rate. This would also pave the way for the creation/development of new financial instruments that would help companies to manage their portfolios better. From the investor's standpoint, too, bonds are an alternative instrument to lodge their savings. From the national viewpoint, a bond market would help to mobilize savings, improve the breadth of the market to include more than just equities, and reduce heavy reliance on bank borrowing, thus allowing for more sustainable economic growth.

A. Secondary Market

The secondary market for bonds in Malaysia is not as well-developed as the primary market. Not many issues are traded, and information on daily volume and prices is not readily available as compared, for example, with equity trading. This is mainly due to the fact that the secondary trading of Malaysian bonds is essentially undertaken OTC and not in an organized exchange, although a few corporate bonds are traded on the KLSE.

Trading volume in MGS averaged RM4.9 billion per month in 1999, which is not very large compared with recent transactions in the Malaysian equities market. Table 6 shows the volume of transaction in the interbank money market.

TABLE 6
Volume of Transaction in the Interbank Money Market
(RM billion)

Year	Total	Inter bank Deposits	Money Market Instrument								
			Sub- total	MGS	Khazanah Bonds	Cagamas Bonds	MTBs	BN Bills	Cagamas Notes	NIDs	BAAs
1994	912.4	805.1	107.3	10.9	0.0	8.6	3.6	5.7	0.0	37.6	41.0
1995	885.0	742.7	142.4	3.8	0.0	16.2	3.8	12.4	0.0	43.4	62.9
1996	1,155.8	973.5	182.3	25.4	0.0	2.5	2.8	14.1	1.7	54.8	81.0
1997	1,860.6	1,673.6	187.0	12.4	0.0	3.7	4.3	12.4	12.6	56.4	85.2
1998	1,824.0	1,650.7	173.3	27.3	1.4	2.4	6.7	0.0	13.1	43.1	79.3
1999	1,386.2	1,189.3	196.9	54.3	5.1	9.5	8.9	0.0	23.9	27.2	67.9

Source: Bank Negara Malaysia.

In terms of composition, the MGS accounted for more than half (approximately 54.2 percent) of the total volume of bonds traded in 1998, while Cagamas (the National Mortgage Corporation) bonds and notes, and Khazanah bonds (fully government-guaranteed bonds issued for the purpose of establishing a benchmark for the corporate market) accounted for 30.1 percent and 9.9 percent, respectively.

Factors limiting the take-off of the secondary market include the distortions caused by dealers in MGS not being required to market their stocks, thus contributing to illiquidity (when they decide to hold on to loss-making positions instead of selling them). Additional problems are limited and irregular supply of issues, and the phenomenon of the captive market, which is a deterrent to the emergence of a true yield curve, currently remains skewed to the lower side.

These problems may be resolved, however, since there has been a recent increase in government bond issues, which now exceed corporate debt securities. This is the result of the Government's efforts to spur economic recovery activities, and because the corporate sector has experienced problems in meeting debt obligations in the aftermath of the Asian crisis, or is in the midst of restructuring. Institutional investors, wary of corporate credit risks, also have an appetite for government securities as these carry no risk of default.

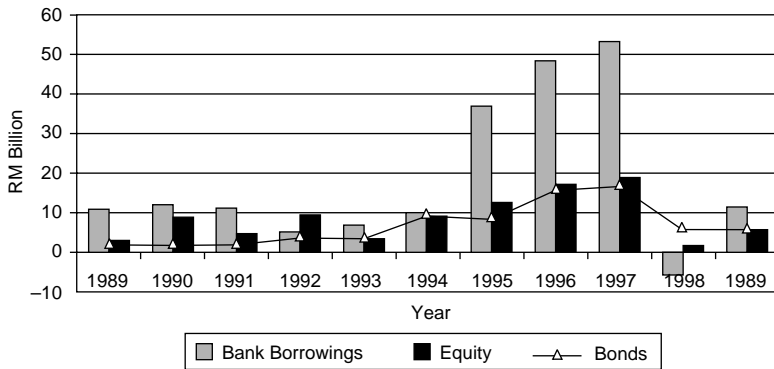
To truly promote the market, however, it is crucial that the Government securities take on the role of benchmarker for the market. A regular, predictable issuance schedule is needed for a whole spectrum of maturities. The securities should be actively traded, very liquid, and responsive to market conditions, and carry a risk that is stable, predictable, and easily assessable. With the purpose of assisting in the assessment of the prevailing interest rate structure, the securities should demonstrate the true underlying interest rate (based on market expectations of future interest rate movements and inflation risk premia). Having a reliable benchmark, the corporate bond market would be able to come out with an array of its own issues, risk premia based on how they rank against government securities, and eventually flourish.

B. Corporate Funding Behavior and the Corporate Market

Private borrowers were heavily reliant on bank finance until 1993, with external financing (bank borrowing and bond issues), representing more than 70 percent of funds raised by Malaysian corporations. The remainder was sourced by issuing shares in the capital market.

The corporate bond market, which involves the issuance of PDS by the Malaysian corporate sector, really made its debut with the establishment

FIGURE 5
Capital Structure of Malaysian Corporations
 (RM billion)



Note: Figures for equity and bonds are new issues, and figures for bank borrowing represent net changes.

Source: Bank Negara Malaysia.

of the National Mortgage Corporation, Cagamas Berhad, in December 1986. Cagamas was incorporated with the primary aim of developing a secondary mortgage market to assist banking institutions in need of liquidity or funding to find refinancing for their mortgage loans. With corporate expansion reducing sharply, demand for funds came more from the issuance of bonds and shares. With many issues providing attractive yields and default guarantees, the bond market attracted increased institutional demand, including foreign demand, giving a strong impetus to the growth of the PDS market in the 1990s.

Bond financing may also be preferred over equity financing for fast-growing firms, as bonds enable owners to retain control over investment decisions. Problems include the lack of transparency and information, which hinders retail demand for bonds. In addition, the relatively small issue size tends to raise transaction costs, which discourages secondary market trading. Secondary market turnover is also low due to the large number of bonds held to maturity by large nonbank investors such as the EPF and the Social Security Organization (SOCSO).

However, given the increase in corporate credit risks in current market conditions, with investors wary of corporate defaults, trading volumes for the MGS have been high, with the trading of listed corporate bonds being considerably reduced. There has also been a sharp fall

in the issuance of PDS by the Malaysian corporate sector, exacerbated by reduced investment spending and uncertain investor interest.

C. Future Development of the Bond Market

Increasingly, development of the corporate bond market is recognized as the way forward for both business and investors. This market will play an important role in the next phase of Malaysia's development. There is a need to develop a bond market that is efficient and has depth and breadth.

Essentially, a developed bond market will offer companies an alternative source of financing, providing flexibility for long-term projects to be funded by long-term funds, and create an opportunity for Malaysian corporations to manage their capital structure more optimally.

From the investors' viewpoint, bond issuance will be an alternative form of investment, assist with diversification of opportunities, and help to mobilize savings towards a more efficient allocation of resources. Hopefully, it will also lead to the development of a secondary market that allows bondholders to trade and make bond instruments marketable and liquid, similar to equity stocks.

Recent measures taken by the authorities to develop the bond market appear to have focused on the primary market, especially for corporate issuers, with lesser priority given to secondary trading. Areas to be addressed mainly relate to market demand, such as irregularity of bond offerings, unattractive coupons, and relatively large denominations for retail investments for government bonds. For corporate issues, there is the additional problem of delays, and complex and costly procedures to be met before offerings are made. Unless these issues are adequately addressed, the potential growth of the market as an increasing and important channel for raising capital funds by corporations will not be maximized.

D. Types of Securities

1. Government Market

Malaysian Government Securities (MGS). The social security and insurance institutions hold more than half the total outstanding MGS. Banking institutions are the second major player, while a small percentage is shared between public enterprises, nonbank financial institutions, and foreign investors.

MGS are medium- to long-term fixed-rate securities issued by the

Government for the financing of public sector development. They are issued in Malaysian ringgit and carry a minimum denomination of RM1,000.

Prior to 1989, bonds were issued at par with a predetermined coupon on a subscription basis to selected institutional investors. This meant very little secondary trading, as the bulk of the issue was locked up until maturity, despite being held in excess of the minimum statutory requirements of these investors.

In recognition of the need for an active secondary market for government securities, the issues were opened to competitive tender, with the coupon determined as the weighted average of the successful tender yields. This system only extended to issues of maturity up to 10 years. Issues with maturity exceeding 10 years are issued at par with market-determined coupon rates to selected institutional investors such as the EPF, the SOCSO and National Savings Bank (NSB).

The tenors for bond issues are 3, 5, 7, 10, 15, and 20 years. The frequency and size of issues may vary depending on the Government's funding requirements and the need to replace maturing issues for the benefit of investors. Hence, the frequency has ranged from one issue in 1993 to six issues in 1998, which included two closed issues to the EPF totaling RM6 billion. This brought the total MGS issuance for 1998 to RM14.95 billion, in line with the funding requirements of the Government in response to the financial crisis (RM10 billion in 1999).

Malaysian Treasury Bills (MTBs). These are sold by BNM on behalf of the Treasury and are used for OMO. The standard tenors of issuance are 3, 6, and 12 months, and do not extend beyond one year. They are sold on a simple discount basis and issued with a regular schedule; three- and six-month MTB issues are alternated with 12 month MTBs on a weekly basis. Each issue size ranges from RM80 million to RM100 million, and they are generally sold to replace maturities of the same tenor to fund the Government's working capital, hence the schedule. Total MTB issuance is approximately RM4.3 billion. They are also issued in ringgit, with a minimum denomination of RM1,000.

Bank Negara Bills (BNBs). BNBs were first issued in February 1993 for the purpose of OMO, to control excess liquidity in the system and to meet the liquidity reserve requirements of financial institutions. The original tenors are the same as MTBs but are in larger amounts, ranging from RM500 million to RM1 billion. There are currently no more BNBs in the system.

Government Investment Certificates (GICs). The development of the Islamic money and bond market in the mid-1980s was accompanied by the establishment of the Government Investment Act 1983, which empowers the Government to issue negotiable instruments based on Islamic principles, known as GICs. Issuances of GICs are much smaller than MGS and MTBs. The bulk is held by Bank Islam Malaysia Berhad, a fully dedicated Islamic banking institution established in 1983 with the commencement of Islamic banking in Malaysia.

2. Corporate and Semigovernment Market

PDS. Domestic Malaysian corporations issue corporate bonds. The original amount issued ranges from RM10 million to RM1.5 billion. However, most bonds are issued in amounts less than RM1 billion. Most corporate bonds are redeemable, with warrants attached, and carry either a fixed or floating rate coupon.

Cagamas. Cagamas is presently the largest single issuer of PDS in the country and ranks only after the Government in terms of total volume of debt securities issued. It started off issuing only one type of PDS, namely fixed rate bonds. Today, debt papers issued include floating rate bonds, short-term discount notes, and Islamic bonds.

Khazanah Bonds. Khazanah Nasional Berhad is wholly owned by the Minister of Finance Inc., and incorporated under the Companies Act 1965. Khazanah has been selected to issue from time to time various series of Khazanah zero-coupon benchmark bonds based on the Islamic Murabahah concept.

The bonds are fully guaranteed by the Government, so their price is widely used as a guide to price corporate bonds to reflect their respective risks. In essence, the bond issues by Khazanah are primarily aimed at setting a benchmark yield curve for the corporate bond market.

The tenors of the bonds alternate between 3, 5, 7 and 10 years and follow a quarterly issuance schedule on 18 March, 18 June, 18 September and 18 December. Khazanah bonds are fully underwritten by the principal dealers and tendered through the Fully Automated System for Trading (FAST).

Khazanah makes four issues a year, at intervals of three months. The first issue was made in September 1997. However, in 1998, six new bond issues were raised by Khazanah, amounting to RM14.95 billion, of which two, totaling RM6.0 billion, were privately placed with EPF. In 1999, there were four issues totaling RM4.13 billion.

Khazanah has the right to retain up to 50 percent of the amount of oversubscription and reduce the issue amount by no less than 10 percent of the offer amount. The bonds qualify as Class 1 Liquefiable Assets under the New Liquidity Framework (NLF) for financial institutions and Low Risk Assets for insurance companies. They carry a zero risk weight for capital requirement purposes and are tradable among institutions listed under Section 47B(1) of the Companies Act 1965. They are exempt from rating on account of the government guarantee. The proceeds from the issues will be invested in a portfolio of PDS, money market instruments, equities, and other investments approved by Khazanah. By 11 January 2000 there was approximately RM8.78 billion in bond outstanding.

Danamodal Bonds. In August 1998, Danamodal Nasional Berhad was set up to undertake the task of recapitalization of financial institutions and to serve as a catalyst for restructuring the banking sector. Danamodal is 100 percent owned by BNM, which accords it an implicit government guarantee. To fund the recapitalization program, Danamodal issued a RM11 billion nominal amount of five-year zero coupon redeemable unsecured bonds. These were subsequently allocated to all 57 banking institutions in the Malaysian banking sector in proportion to the funds each institution received from the two percentage points reduction in statutory reserve requirement (SRR) to 4 percent, introduced on 16 September 1998. This raised approximately RM7.7 billion in proceeds on 21 October 1998, when the bonds were issued at the then prevailing five-year MGS yield.

These bonds were accorded Liquid Asset and Class 1 Liquefiable Asset (under the NLF) status for financial institutions and Low Risk Asset status for insurance companies. The bonds are assigned a zero risk weight for capital requirement purposes and are available for discounting with BNM as lender of last resort. In addition, these bonds are tradable among institutions listed under Section 47B(1) of the Companies Act 1965 and exempted from the 25 percent Single Customer Limit under Section 61 of the Banking and Financial Institutions Act 1989. The bonds are not rated.

Danamodal has the right to extend the maturity date of the bonds upon maturity for a further period of between one and five years. The repricing will be at 50 basis points above the benchmark five-year MGS yield at the time.

Danaharta Bonds. In June 1998 Pengurusan Danaharta Nasional Berhad was set up to act as the National Asset Management Company to acquire NPLs from the banking sector and to maximize their recovery value.

Danaharta is a public company incorporated under the Companies Act 1965, and fully owned by the Minister of Finance Inc.

Danaharta bonds are issued as consideration for the NPLs it purchases from any financial institution. The bond program is constituted by an issuance framework of up to RM15 billion nominal amount of five-year government-guaranteed zero coupon redeemable bonds. The price of each new issue is pegged against the five-year rate of the most recently issued MGS. As at 11 January 2000, there was approximately RM10.3 billion nominal amount in bond outstanding.

These bonds were accorded Liquid Asset and Class 1 Liquefiable Asset (under the NLF) status for financial institutions and Low Risk Asset status for insurance companies. Being government-guaranteed, the bonds carry a zero risk weight for capital requirement purposes and are available for discounting with BNM as lender of last resort. The bonds are tradable among institutions listed under Section 47B(1) of the Companies Act 1965 and exempt from rating. Danaharta has the option of extending the maturity of the bonds for an additional period of one, three, or five years at the benchmark MGS yields at the point of extension.

E. Investor Base

1. Institutional Investors

The investor base in the Malaysian bond market is mainly comprised of banks and asset and pension funds.

Certain institutional investors are required by statute to invest a portion of their total funds in government securities (designated as liquid assets) to support the Government's development financing needs. For example, provident and pension funds are required to invest a minimum of 50 percent of their total investible funds in such securities. The largest of these is the EPF which was first established under the Employee Provident Funds Ordinance 1951 and reenacted under the EPF Act 1991.

Besides pension funds, insurance companies, by virtue of the Insurance Act 1963, must invest at least 25 percent of their total insurance funds in a category of assets known as low-risk assets. This was traditionally made up of government securities, but with the reduction in government expenditure, and thus issuances, this has been expanded to cover Cagamas debt securities and government-guaranteed bonds. Nonetheless, the demand generated by this requirement has largely consumed the bulk of the supply of securities, such as MGS, eligible for this purpose.

The requirement has many advantages for the economy, firstly providing an avenue by which to raise funds at fixed rates cheaply for

the country's development financing needs. The required funds can also be speedily raised as the bonds, being fully underwritten by a panel of appointed PDs, can be brought to the market within a short time.

The present framework also allows the Government flexibility in structuring the maturity profile of its debts, allowing it to match the tenor of its financing needs, especially for long-term infrastructure development projects.

The issuance of government bonds through the BNM provides the bank with an effective tool in its implementation of monetary policies, allowing it to manage the level of market liquidity, thereby influencing and setting the level of interest rates.

It also provides a safety net in case of unexpected demands for liquidity, giving depositors some protection of their monies, and increases confidence in the banking institutions. In the event of a run on liquidity, the bonds can be easily disposed of in the open market, due to their high marketability and liquidity, or by way of access to the BNM, as lender of last resort, to be sold or pledged as collateral for liquidity support.

The availability of a wide-term structure of government bonds also provides attractive credit risk-free investment opportunities for investors, such as pension and insurance fund managers, particularly given the glaring lack of long-term interest rate products in the Malaysian market. Yields on such bonds also offer a reasonable return over the average inflation rate.

Providing a stable subscription base, and thereby ensuring a degree of liquidity for these bonds in the interbank market, serves to provide a market-determined yield on sovereign bonds, which are credit-risk free. This acts as a benchmark for the pricing of other debt issues, as traders and investors need only focus on quantifying the credit risk premia on those issues.

Disadvantages. The mandatory requirement to hold government bonds has resulted in a captive market for the bonds, creating artificial demand that distorts yields. Yields may therefore not be truly reflective of the level of interest rates and market returns. This further discourages independent assessment of other available investment opportunities.

These bonds are inevitably locked up and held until maturity, especially by the pension funds. This has inadvertently promoted passive portfolio management, and discourages analysis of returns and trading due to the need to obtain equivalent replacement investments if any are disposed. This further leads to the lack of development of a secondary market. In the absence of an effective hedging instrument, e.g. government

bond futures contracts, this passive portfolio management may also lead to a higher risk profile of the mandatory holders of the bonds.

Furthermore, if the balance of supply and demand is not carefully maintained, this may cause false or adverse movements in yields, irrespective of fundamental macroeconomic conditions. As a benchmark, this may widen or narrow the spread on corporate debt, despite there being no change in the underlying credit profile.

2. Retail Investors

The current framework has created the dominance of the government bond market by the financial institutions and large pension funds, and each issue seems to cater only for the wholesale market, thus ignoring the needs of retail investors in search of secure long-term investments—even though the minimum denomination for government bonds is set at RM1,000.00.

IV. Infrastructure of the Bond Market

A. Primary Dealer System

The backbone of the MGS market is the system of primary dealers (PDs), first introduced in 1988. These are appointed by BNM to bid at primary auctions of designated benchmark securities, namely MGS, MTBs, Cagamas securities, Khazanah bonds, and BNM bills. They also play an important role in the secondary market. They are obliged not only to quote two-way prices for these benchmark securities but also to bid on behalf of third parties at primary auctions. For each third party, each PD is required to bid a minimum of 10 percent and a maximum of 30 percent of the original issue size. Furthermore, a PD can only accept a maximum tender bid from each third party of 30 percent of the original issue size.

The benchmark securities, which PDs are obliged to make markets for, are currently determined as the four most recent issues of MGS, the three most recent issues of Khazanah and Cagamas bonds, and the 3-, 6-, and 12-month MTBs. The 3-, 6-, and 12-month BNM bills are also designated benchmarks, but there have not been any outstanding issues since 1997 due to the developing liquidity crises in the country. The 14 PDs appointed for 1999 comprise seven commercial banks, four merchant banks, and three discount houses. PD status is reviewed yearly and is based on an institution's participation in the government securities market.

Apart from the PDs, the Malaysian debt market recognizes approved

dealers, which are also market makers in all securities traded within the Scriptless Securities Trading System (SSTS). Unlike PDs, however, approved dealers are not obliged to provide two-way quotes at all times.

B. Issuance Methods and Procedures

The responsibility for issuing government bonds lies with BNM, one of the five statutory bodies under the Ministry of Finance (MOF). As the Central Bank, BNM is vested with comprehensive legal powers to regulate and supervise the financial system of the country, as well as to promote monetary stability and a sound financial infrastructure.

T-bills are issued through competitive biweekly auctions, while MGS are issued through competitive auctions on an irregular basis. Only PDs that are discount houses are eligible to tender for T-bills and MGS. However, PDs that are not discount houses may tender for MGS with maturity up to 10 years. MGS with maturity longer than 10 years are allocated to advance subscribers. Auctions for T-bills are announced one week beforehand and held a day before they are issued. Auction time and date for MGS are only known upon announcement of new issues.

BNM, acting on behalf of the Government, announces the terms of the issue and interested parties submit bids for the entire issue. Competitive bids must be submitted on a yield basis.

BNM, however, has the discretion to upsize or downsize the original issue amount by 25 percent. BNM announces its intention to issue the bonds at least seven days in advance of the issue date through both FAST and a leading daily national newspaper. The announcement also appears on news services like Reuters and Bloomberg for dissemination to professional investors. The information conveyed in this announcement covers the basic details, such as issue amount, tenor, issue, and maturity dates.

All new government bonds are issued scriptless, i.e. in the form of book entries, located in an automated book-entry system operated by BNM. Book entry securities are easier to trade than physical securities.

Corporate bonds are usually lead-managed and underwritten, while Danaharta bonds are offered direct to financial institutions in exchange for NPLs. The date and timing of the auction for Cagamas notes and bonds are only known upon announcement of new issues. Like government securities, Cagamas securities are auctioned through the SSTS system and the Inter-Bank Funds Transfer System (IFTS). Khazanah bonds are offered through tenders to PDs, who bid competitively on a price basis. Auctions for these bonds are submitted through FAST, and in accordance with the rules on FAST for SSTS securities.

In an attempt to modernize the auction process and make it more efficient, BNM started to automate the bidding procedure. Beginning 1996, competitive bids were accepted electronically under FAST. Under this enhanced system, bids are not only processed, but securities are also issued electronically.

The objective of FAST was to improve the overall efficiency of the tendering process and reduce errors and delays arising from manual tendering. FAST allows lead arrangers to invite designated subscribers to tender for the issue at least three business days before the tender closing date. Subscribers then submit their bids electronically through a secured network at their respective workstations to the host network at the Central Bank. The system automatically sorts and allots the securities to successful bidders. The results are made known to all network members.

In 1997, the Bond Information and Dissemination System (BIDS) was introduced by BNM. It is a computerized system which centralizes the collection and dissemination of information on government securities and PDS. The information conveyed includes the terms and conditions of the issue and the details of deals done, while counterparties confirm their trades on user terminals located at their respective institutions. Relevant news on the debt securities market and tender announcements and results are also broadcast. The objective of BIDS was to enhance the transparency of the OTC securities market and improve the dissemination of market information to its participants.

In 1999, BNM sought to integrate certain functions of FAST and BIDS to improve the operating efficiency of these systems and also cater to the tendering of money through FAST. The tendering of money by BNM is a direct intervention of the Central Bank in the interbank deposit market to control the level of day-to-day liquidity.

C. When-Issued Trading

From the time the announcement appears in FAST, the issue is technically open for tender, and will only close at 11:30 on the last working day before the issue date. Upon announcement, a when-issued (WI) trading session will ensue, in which pretender secondary trades are transacted. These trades add weight to the creation of bidding levels by PDs. The tendering process involves the creation of the bids, approval and, finally, submission. The tender is processed automatically by FAST and the issue allocated to the bidders in ascending order from the lowest yield tendered until the amount is exhausted.

The results are generally available through FAST from 12:30 onwards, displaying the amounts allocated to successful bidders, the lowest,

average, and highest successful rates. The average rate becomes the coupon rate for the issue along the lines of a Dutch auction. Settlement takes place on the next working day. Standard settlement for WI trades take place one day after the issue date. Once this process is complete, secondary trading can commence.

D. Secondary Market Trading System

The OTC market is operated by security dealers (including primary dealers given specific approval and obligations by BNM), who are linked by telephone and electronic information systems. This trading system is no different from the OTC market in the US. As can be expected in a dealer market, the dealers are market-makers, providing quotes (bid and ask prices) to buyers, and standing ready to buy and sell at the quoted prices. Some of the dealers are major commercial banks, merchant banks, broking houses, and discount houses.

The market is not large, and trading volume, even on a yearly basis ranged from only RM3.8 billion in 1995 to RM53 billion from January to November 1999. The market is fairly liquid (although bid and ask spread can sometimes be large) but not deep, with trades averaging about RM100 million to RM200 million daily. The market is centered in Kuala Lumpur and the principal participants are the dealers and brokers.

Dealers, as the market makers for MGS, must take a position in securities, always carrying an inventory of MGS. Some transactions are completed through brokers who, unlike dealers, never take a position in securities. There are eight MGS brokers operating in Kuala Lumpur at present. As in other markets, brokers merely bring together buyers and sellers, and provide anonymity to trade. Since 1997, the trading system has been aided by BIDS.

E. Exchange Trading

Kuala Lumpur Stock Exchange (KLSE) was formed in 1973 and has had fully computerized trading from 1992. Equity securities are traded on the exchange, as well as warrants and bonds. As of 31 May 1999, the exchange quotes 12 corporate bonds.

Malaysia Exchange of Securities Dealing and Automated Quotation (MESDAQ) commenced operations on 30 April 1999. It is expected to function similarly to NASDAQ in the US, creating an equity market to fund the development of technology-based, high-growth companies. This exchange imposes less stringent admission criteria than the KLSE.

Kuala Lumpur Options and Financial Futures Exchange (KLOFFE) was formed on 15 December 1995. It provides a range of futures and options products (derivatives), which are available to both domestic and foreign players in the Malaysian capital market as part of their risk management activities. Membership and trading practices are governed by the exchange itself. Contracts traded on the exchange are cleared by the Malaysian Derivatives Clearing House Berhad (MDCH).

Commodity and Monetary Exchange of Malaysia (COMMEX Malaysia) previously the Kuala Lumpur Commodity Exchange, commenced operations in July 1980. It provides a market for trading in futures contract. The exchange exercises an open outcry trading method. The prices transacted are captured on a real time basis and disseminated to users via wire services and information agencies, such as Reuters.

F. Interbank Market

BNM has authorized selected exempt dealers to participate in the broad Malaysian securities market, mainly in nonequity related fixed-rate instruments. This market is an interbank market, whose participants are those exempt dealers who deal on live prices broadcast by money market and foreign exchange brokers. Exempt dealers are defined as those who can undertake third party trades on behalf of customers.

G. Other Features of Bond Market Infrastructure

1. Benchmark Yield Curve

Government securities typically perform an important role in a country's capital market. They provide the basis for which the yield curve (or the term structure of interest rates) is constructed. Yield curves are often constituted from observations of prices and yields in the government securities market. Several reasons account for this tendency. First, government securities are free of default risk, and second, this market tends to give fewer problems of illiquidity and infrequent trading.

A government securities market yield curve clearly also functions as a benchmark for pricing bonds and setting yields in other debt markets, for example for corporate bonds.

Figure 6 shows the transition of interest rate levels of MGS, using the 2- and 10-year maturities as a sample. As shown, the levels experienced sudden hikes from October 1997, before gradually coming down to present levels. Figure 4, meanwhile, shows the prevailing MGS yield curve, which is positive with a flattening end at 13 years and above.

FIGURE 6
Two-Year and Ten-Year MGS Yield
(December 1994 to December 1999)

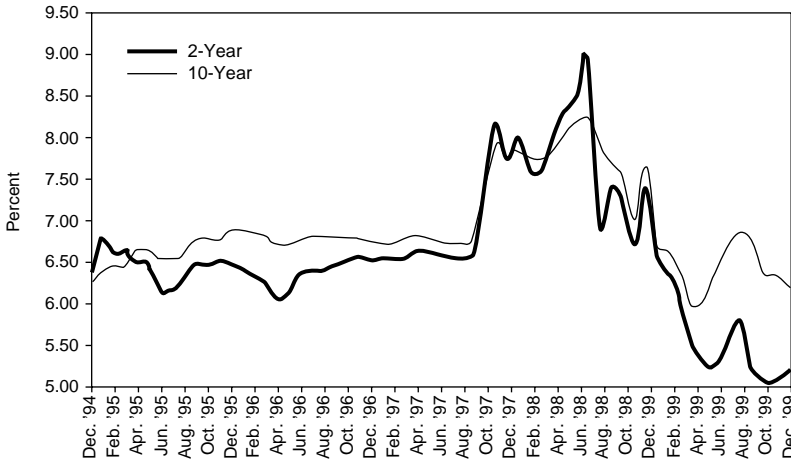
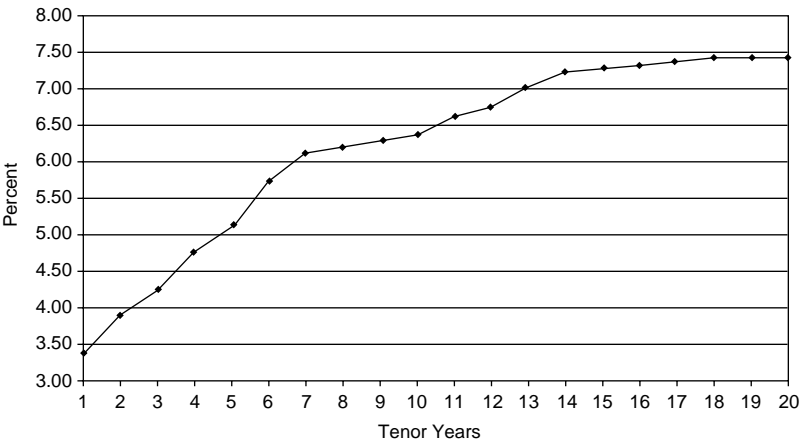


FIGURE 7
MGS Yield Curve (November 1999)



In Malaysia, government securities have not proven to be a good benchmark because of the lack of a regular issuance program. The issuance of MGS declined in the past as the government budget moved into surplus. This led to a disproportionate distribution of maturities compounded by the fact that issues above 10 years are issued via closed subscription.

Furthermore, insurance companies and pension funds are legally required to invest in these securities. As their funds grow, their requirement to purchase government securities increases, and unless the rate of new issuances keeps pace, this leads to a greater proportion of these securities being locked up and not traded. Such artificial demand distorts yields, and discourages independent assessment of other available investment opportunities.

The absence of an institutionalized securities borrowing and lending program makes it difficult to short sell securities when the interest rate outlook demands it. This prevents dual-directional trading, creates a strong buy-side bias for these securities, and also prevents price discovery, as bondholders are forced to hold on to their bonds which are underwater. This is compounded by the lack of a credible hedging mechanism for bonds.

In recognition of the reduced issuance of MGS and their weaknesses as a proxy for benchmark securities, the Government decided to create a benchmark bond program with the issuance of Khazanah benchmark bonds in September 1997. Khazanah Nasional Berhad is a privately incorporated investment holding company of the Government. The bonds are Islamic, which means they appeal to a wider investor base. They are also government-guaranteed, and so qualify as risk free. They are zero coupon to eliminate reinvestment risk and follow a quarterly issuance schedule covering the entire maturity spectrum of 3, 5, 7, and 10 years. Issue sizes range from RM1 billion to RM2 billion. Like the government securities, Khazanah bonds are issued by way of competitive tender through principal dealers.

Due to their being risk-free, the price of Khazanah bonds is widely used as a guide to price corporate bonds to reflect their respective risks. In essence, the bond issues by Khazanah are primarily aimed at setting a benchmark yield curve for the corporate bond market.

To investors and issuers, such benchmarks are an indispensable guide as indicators of interest rate levels and total returns. In other words, they help to price credit risk which will, in turn, provide for more reflective corporate bond pricing. Consequently, the existence of such a benchmark will inevitably increase the liquidity of the corporate bond market.

It can be said that the mandate given to Khazanah reflects the Government's serious efforts to establish such a yield curve in the market. However, after two years of implementation the program has proved to be unsatisfactory, mainly due to small issue size and general investor preference for MGS.

2. Tax Treatment

Tax incentives may distort the purchasing and selling decisions of investors. In this regard, there are tax incentives which allow interest income from MGS held by corporate investors to be subjected to the marginal corporate tax rate but exempted from individual income tax. However, nonresident MGS holders are subject to a 15 percent withholding tax, which dramatically reduces the yield on the bond for a given price paid. This may make the already low coupon-bearing MGS much less attractive compared with other quasi-sovereign issues like Khazanah bonds, which are zero coupons.

3. Credit Rating

The need for a rating agency is a paramount requirement for the development of the corporate bond market. A rating agency provides a professional opinion on the credit standing of issuers and the credit risk of particular issues, based on a set of factors that include the issuer's business fundamentals and credit enhancements, if any. The agency provides an opinion on the ability and willingness of the issuer to make full and timely repayments of its financial obligations.

Presently, there are two credit rating agencies in Malaysia. The first is Rating Agency Malaysia Berhad (RAM), established in November 1993 and the second is Malaysian Rating Corporation Berhad (MRCB), set up in September 1996. In May 1992, BNM made it mandatory for all domestic bonds to be rated, a very important step for the development of the primary corporate bond market.

4. Financial Guarantee Insurer

Recently, the Government also proposed the establishment of a financial guarantee insurer (FGI) for the bond market, in an attempt to create an active market with a large pool of issuers, investors, traders, and financial intermediaries, and thus contribute to the size and liquidity of the market. The FGI will help to provide the issuer of PDS with an alternative guarantee facility and to enhance its proposed debt issue's

stand-alone rating. Acting as an insurer for the bond issues and a provider of a form of credit guarantee mechanism, the FGI will diversify some of the credit risk away from the banking system.

5. Transparency of Information

This is critical for the overall growth of the bond market, and an active secondary market is also highly dependent on the availability of information to all market participants. To address the information deficiency, the BIDS was launched in October 1997. BIDS provides a comprehensive database on the government and PDS market, and stock and facility information on all ringgit-denominated nonequity linked debt securities, as well as their last traded prices and volumes.

6. Clearing and Settlement

As with the new issue market, trading in MGS is also scriptless and electronically driven through the introduction of a computerized scriptless securities trading system known as the System Pemindahan Elektronik untuk Dana dan Sekuriti (SPEEDS). Under SPEEDS, trading, registration, and settlement of MGS are automated. The system is comprised of IFTS and SSTS. The IFTS, launched in 1989, enables the automatic transfer of interbank funds to be made at the end of each business day.

The SSTS was introduced in December 1990 to accommodate the electronic settlement of deals between counterparties and the registration of securities in both the bank's and customer's accounts. The securities covered by the SSTS are MGS, MTBs, BNBs, and GICs.

In view of the increasing number of PDS issues, efforts were also directed towards the development of trading principles and a clearing and settlement system for them. This led to the introduction of SPEEDS in January 1990, which made confirmation of trades and settlement of cash and securities transfers fully automated. In January 1996, the system was further upgraded to serve as the central depository and paying agent for all unlisted bonds.

In enhancing the efficiency of the primary market auction of government securities and eliminating potential disputes, the tendering process of government bonds involving MGS, MTBs, and BNM bills also became automated with the implementation of the FAST in 1996. This system was subsequently upgraded in 1997 to include commercial papers and medium-term notes.

The transparency of information in the bond market is critical to

its overall growth, and an active secondary market is highly dependent on the availability of information to all market participants. To address the information deficiency, the BIDS was launched in October 1997. In July 1999, Real Time Electronic Transfer of Funds and Securities (RENTAS) was introduced to replace SPEEDS, with the purpose of providing a more efficient mechanism for clearing and settlement of debt securities, with the bonds issued on a scriptless basis.

Settlement of funds and securities occurs on a transaction-by-transaction or gross basis, without netting debits against credits as was the case under SPEEDS. Thus, payments occur on a real-time basis, resulting in finality of payments (enabling immediate use of funds by the recipients) and the reduction of principal risk associated with the asynchronous delivery versus payment settlement for securities transactions. RENTAS provides a link to BIDS.

As government securities are scriptless, they must be lodged with a custodian known as an authorized depository institution (ADI). An ADI maintains two securities accounts with BNM within the RENTAS system—its own securities account and an aggregate customer account for securities held on behalf of its clients. An ADI is entrusted to record the holdings and transactions of its customers and to issue to them periodic statements listing their holdings of scriptless securities. ADIs have the responsibility of collecting interest payments and redemption monies on their customers' behalf. All interbank participants are qualified to act as ADIs.

7. Market Conventions

For all government securities, the conventions are settlement T+1 and for corporate bonds T+7. For all bonds value date is same as settlement and day count basis actual/365.

V. Regulatory Structure

Debt issues by private limited companies are regulated by the BNM, while issues by public and listed companies are regulated by the Securities Commission (SC). In the case of a public issue and listing purpose, the Registrar of Companies and the KLSE oversee the prospectus, trust deed, and circular. However, the National Bond Market Committee has appointed the SC to be the single regulatory body for the supervision and regulation of the corporate bond market in the future.

The government securities market is governed by a framework of legal provisions, policies, and administrative guidelines issued by the

authorities—principally the Government, BNM and, to a lesser extent, the SC. The relevant pieces of legislation are the Loan (Local) Ordinance 1959, the Treasury Bills (Local) Act 1946, and the Government Investment Act 1983, along with their various amendments.

These pieces of legislation govern the issuance of MGS, MTBs, and GICs, respectively. They were amended in 1989 to provide for the issue and transfer of these securities in a scriptless form, in line with the adoption of the SPEEDS system. They also outline the roles and responsibilities of the various market participants, such as BNM, ADIs, and customers, in addition to laying out punishments for violations of its provisions.

A large portion of the demand for government securities emanates from the need for financial institutions supervised by BNM to maintain a certain portion of their eligible liabilities base in the form of liquid assets. Presently, the ratio for commercial banks is 15 percent and 12.5 percent for merchant banks and finance companies. Instruments that qualify as liquid assets for this purpose are MGS, MTBs, Cagamas debt securities, and BNBs, among others.

However, in 1999, BNM undertook the staged implementation of the NLF which requires institutions to monitor their liquidity requirements in the form of the actual maturity distribution of their assets and liabilities, instead of a static portion of their liabilities invested in liquid assets. This has the impact of altering the demand-supply profile for government securities, as institutions have the choice of maintaining their liquidity in the form of cash or securities. Furthermore, the securities eligible for this purpose have been expanded to include PDS and government-guaranteed bonds.

Certain institutional investors are also required by statute to invest a portion of their total funds in government securities. For example, provident and pension funds are required to invest a minimum of 50 percent of their total investible funds in such securities. The largest of these is the EPF which was first established under the Employee Provident Funds Ordinance 1951 and reenacted under the EPF Act 1991.

Besides pension funds, insurance companies, by virtue of the Insurance Act 1963, must invest at least 25 percent of their total insurance funds in a category of assets known as low-risk assets. This was traditionally made up of government securities, but with the reduction in issuances, this has been expanded to cover Cagamas debt securities and government-guaranteed bonds.

Code of Conduct

BNM sets the parameters of the government securities market and seeks to dictate the functioning of the market via various guidelines and policies aimed at directing the conduct of dealers and brokers. In addition, is also sets standards in matters such as trading times, trading amounts, and settlement procedures, with which to enhance the operational efficiency of the market.

Over the years, various codes of market practice had been introduced by the Government to further enhance the supervisory framework for the corporate bond market, such as the Code of Conduct and Market Practices for Scriptless Trading in the Malaysian Securities Market issued in 1990.

These guidelines were subsequently revised and relaunched in July 1999 as the Code of Conduct and Market Practices for the Bond Market. The revised guidelines coincided with the launching of the RENTAS, a new clearing and settlement system which was recently introduced to replace the previous computerized scriptless securities trading system known as SPEEDS. RENTAS provides a link to BIDS. The code effectively covers the issuing procedures for primary issues, interest calculation, secondary trading principles, and the procedures for compensation of delayed or failed settlements.

BNM also issued The Malaysian Code of Conduct for Principals and Brokers in the Wholesale Money and Foreign Exchange Markets in 1994, to set out the principles and standards to be observed by the employees of money-broking companies and licensed financial institutions when dealing in the Malaysian money and foreign exchange wholesale markets. This code focuses on maintaining high standards of professionalism, protecting the credibility of oral contracts, and avoiding misunderstandings and errors due to the reliance on verbal instructions and agreements.

VI. Major Policy Issues and Recommendations

Despite the advances of recent years, still some problems must be addressed before the ideals of a freely functioning government bond market can be realized in Malaysia. Major problem areas include:

Tax Disincentive. Tax incentives may distort the purchase and selling decisions of investors. In this regard, there are tax incentives which allow interest income from MGS held by corporate investors to be subjected to the marginal corporate tax rate but exempted from individual income

tax. However, nonresident MGS holders are subject to a 15 percent withholding tax, which dramatically reduces the yield on the bond for a given price paid. This may make the already low coupon-bearing MGS much less attractive compared with other quasi-sovereign issues like Khazanah bonds, which are zero coupons.

Interest Rate Incentives/Controls. There is little incentive in the way of interest rates, as the interest rate on MGS of 10 years and below is determined by competitive bidding. Coupon rates tend to be low so that, as a source of income, government bonds are unattractive, especially to retail customers.

Where coupon rates are higher than the current yield, the bond price will be at a premium. This may put off some investors, as the amortization of the premium will be registered as a loss in their financial statements. Hence, the preference will be for discount or low-premium bonds with lower coupon rates.

Furthermore, due to the various statutory and liquidity reserve requirements of financial institutions, it has been too costly for banks to hold bonds, including MGS. They may suffer a negative carrying cost, as their cost of funds, including the cost of complying with these requirements, exceeds the yield on the MGS.

Compulsory Subscriptions. As highlighted earlier, there are institutional investors in Malaysia who are required by statute to invest a certain portion of their investible funds in MGS. Hence, when the maturities of these issues are not correspondingly replaced with new issues, or when the requirements of these investors grow drastically due to phenomenal growth in their assets, this causes demand to drive yields down in an environment of supply scarcity. This problem becomes particularly pronounced when the supply of new MGS issues is neither regular nor sizeable.

Market Distortions. Other distortions exist where dealers in MGS are not required to market their stocks and may therefore hold on to loss-making positions instead of selling them in the secondary market. This contributes to an illiquid secondary market for MGS, especially when the yield curve has shifted up from a previous level.

The MGS market is primarily a wholesale market with little opportunity for individual and other nonprofessional investors to invest. The entire infrastructure of the market is suited to wholesale dealers in respect of the size of the denominations, settlement system via interbank funds transfer, standard dealing amounts of these bonds, and volatility

in their prices. Lack of price volatility is a particular hindrance to a wider bondholding market and to a more active secondary market.

The cumulative effects of these problems is a government bond market that is often illiquid, and whose trading volume is not continuous and large. This leads to unnecessary volatility in MGS yields and prices in other markets, whose participants may take the lead from the MGS market. Where there is no trading, there may be times when prices do not exist at all, which denies the market the benefit of price discovery. This may cause a distortion in the shape of the MGS yield curve, hindering buying and selling decisions.

The effectiveness of the appointed PDs in the government bond market may not be up to expectations. Due in large part to inherent problems, certain PDs may not fully fulfil their role in making markets and quoting two-way prices for MGS. A related problem is the uncertain position of the discount houses, an important segment of the secondary market, whose future is being reviewed by BNM. There is a proposal to phase out discount house activity.

The effect of these problems on the corporate bond market is similar and sometimes even worse. Corporate bond holdings are largely institutional and secondary trading is limited. The market is neither deep nor liquid.

A. Recommendations

Policy recommendations that may enhance the development and efficiency of the government bond market are discussed below, and cover the needs of both the primary and secondary markets.

Fiscal Policy and Management. Government bonds are usually issued to finance budget deficits. However, in the event that government budgets are in surplus, it is essential for benchmarking purposes that the government continues to issue bonds. Issuance should take place on a regular and predictable schedule, and the size of the issue should be fairly sizable to prevent any single investor cornering or dominating the issue.

Interest Rate Policy. The issuance of bonds should never be based on an arbitrarily determined rate, as setting the wrong rate may risk altering the yield curve, resulting in the wrong signals being sent to the market and a misallocation of resources. While the issuance of MGS should continue to be market-determined, efforts should be made to ensure that any single bidder does not dominate and thus manipulate the rate of the

issue. This may be achieved by setting single bidder limits per issue.

Alternatively, each issue could cater to a competitive and noncompetitive mode, where the portion of the issue, subject to the former mode, would be tendered openly by the designated subscribers. The balance of the issue could then be subscribed on a noncompetitive basis, with subscribers allocated based on the average price determined by the competitively tendered portion.

In setting the interest rate for bonds, attention should be paid to interest rate levels as an incentive to a wider market for the government bonds.

Identification of Instruments for Benchmarking Purposes. The Khazanah Benchmark Bond Program was introduced to compensate for the reduced issuance of MGS in recent years. After two years of implementation, however, the program has proved to be unsatisfactory, mainly due to small issue size and general investor preference for MGS.

It seems advisable to reestablish the MGS purely to fulfil the function of benchmark bonds instead of introducing a proxy. Investors will otherwise have to assess the individual credit status of the issuer so long as it is not a direct government obligation. Even if the proxy issue is enhanced by a government guarantee, some investors would need to assess the legal aspects of the guarantee.

Legal and Regulatory Framework. The prevailing legal and regulatory framework appears to be a limiting factor in the development of the government bond market. Efforts should be applied to reduce the demand for MGS solely on account of statutory requirements. This has been done to a certain extent for insurance companies, which have recently been permitted to purchase Cagamas debt securities and government-guaranteed bonds, in addition to MGS for their statutory compliance.

The NLF is in the process of being implemented for banks. This obliges them to manage their liquidity more in terms of their asset-liability mismatch, and is in contrast to the previous policy of requiring banks to invest in selected government and quasi-government bonds of an amount proportionate to their eligible liability base. This has, to some extent, diverted the demand away from MGS.

Similarly, it has recently been decided that the sole task of regulating the corporate bond market be transferred from BNM to the SC. While corporate bond issues will be under the jurisdiction of the SC, it is anticipated that government bonds will continue to be under the jurisdiction of BNM.

Market Demand for Government Bonds. Market demand is growing in line with the Malaysian economy's recovery. The issue is one of furthering the growth of the market, and the various recommendations made earlier in respect of regular and adequate supplies and attractive interest rates are designed to achieve this purpose.

Modernization of Market Infrastructure and Dealing Systems. The government bond market in Malaysia would be greatly enhanced by the introduction of mechanisms to allow hedging and short-selling. Any investment in the cash market should be complemented by the availability of a dedicated hedging instrument. An exchange-traded MGS futures contract could help to preserve the portfolio of MGS maintained by investors, as well as to alter the duration characteristics of the portfolio where desired. Such a contract would aid price determination and serve as an additional signaling mechanism for the cash market. Trading activity on that contract would greatly promote liquidity in the cash market, as traders would simultaneously lubricate both markets through arbitrage activities.

A formal MGS borrowing and lending program would facilitate the dual-directional trading of MGS, as players could then structurally short the stock instead of merely staying sidelined in a bear market. This would help to remove the strong buy-side bias currently evident in the MGS market.

Policy to Develop Government and Corporate Bond Markets in a Balanced Manner. At present, the government bond market is far better developed and evolved than the corporate bond market. Formal standards of practice and conventions have long been drawn up for the MGS market and are closely adhered to. Furthermore, the MGS market has a modern and efficient settlement system through RENTAS and the tendering process through FAST.

The same cannot be said of the corporate bond market, although similar infrastructure is currently being implemented. The corporate bond market recently witnessed the issuance of dedicated guidelines and procedures by the Bond Traders Institute for primary and secondary corporate bonds. Corporate bonds issued since October 1996 are scriptless and settled through SPEEDS, the precursor to RENTAS. Those issues of corporate bonds being priced through open market tender are no longer done manually, but through FAST.

The Malaysian authorities plan to issue a corporate bond market blueprint early in 2000, which is expected to herald new initiatives and methods to further develop the market.

Appendix 1

TABLE A.1
Federal Government Finance

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999E	2000F
RM Billion											
Current Budget											
Revenue	29.5	34.1	39.3	41.7	49.4	51.0	58.3	65.7	56.7	56.7	59.9
Current Expenditure	25.0	28.3	32.1	32.2	35.1	36.6	43.9	44.7	44.6	48.9	52.4
Current Surplus/Deficit	4.5	5.8	7.2	9.5	14.4	14.4	14.4	21.1	12.1	7.8	7.5
Overall Budget											
Gross Development Expenditure	10.7	9.6	9.7	10.1	11.3	14.1	14.6	15.7	18.1	25.0	23.7
Less: Repayment	2.8	1.2	1.3	1.0	1.3	1.5	2.0	1.3	1.0	3.5	3.2
Net Development Expenditure	7.9	8.4	8.4	9.1	10.0	12.5	12.6	14.4	17.1	21.5	20.5
Overall Surplus/Deficit	-3.4	-2.6	-1.2	0.4	4.4	1.9	1.8	6.6	-5.0	-13.7	-13.0
Sources of Finance											
Net Domestic Borrowings	3.8	3.2	1.5	0.4	1.8	0.0	1.3	-2.0	11.0	16.8	13.2
Net External Borrowings	-0.8	0.1	-3.2	-3.1	-4.8	-1.6	-2.2	-1.7	1.8	3.2	0.8
Accumulation/Uses of Assets	-0.4	0.6	-2.9	-2.4	1.4	0.2	0.9	2.9	7.8	6.2	1.0

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TABLE A.1
continued

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999E	2000F
Percent of GNP											
Current Budget											
Revenue	25.9	26.5	27.5	25.4	26.6	24.0	24.1	24.6	21.1	20.2	20.2
Current Expenditure	21.9	22.1	22.5	19.7	18.8	17.2	18.1	16.7	16.6	17.4	17.7
Current Surplus/Deficit	3.9	4.5	5.0	5.8	7.7	6.8	6.0	7.9	4.5	2.8	2.6
Overall Budget											
Gross Development Expenditure	9.4	7.5	6.8	6.2	6.1	6.6	6.0	5.9	6.7	8.9	8.0
Net Development Expenditure	7.0	6.5	5.9	5.6	5.4	5.9	5.2	5.4	6.4	7.7	6.9
Overall Surplus/Deficit	-3.0	-2.1	-0.9	0.2	2.4	0.9	0.8	2.5	-1.9	-4.9	-4.4
Sources of finance											
Net Domestic Borrowings	3.3	2.5	1.0	0.2	0.9	0.0	0.5	-0.8	4.1	6.0	4.5
Net External Borrowings	-0.7	0.1	-2.2	-1.9	-2.6	-0.8	-0.9	-0.6	0.7	1.1	0.3
Accumulation/Uses of Assets	-0.4	0.5	-2.1	-1.5	0.8	0.1	0.4	1.1	2.9	2.2	0.3
Annual Percent Change											
Revenue	16.8	15.3	15.3	6.2	18.6	3.0	14.4	12.8	-13.7	0.0	5.7
Expenditure	16.4	6.0	10.3	1.4	9.4	9.2	15.5	3.3	3.8	17.9	2.8
<i>Current</i>	8.9	13.1	13.4	0.4	8.8	4.3	19.9	1.8	-0.2	9.7	7.0
<i>Development (gross)</i>	38.9	-10.5	1.3	4.5	11.4	24.6	4.1	7.7	14.9	38.1	-5.3
Average RM/US\$	2.7044	2.7498	2.5472	2.5708	2.6205	2.5042	2.5119	2.8105	3.9172	3.8000	3.8000

E = MOF Estimates; F = MOF Forecast.

Source: Economic Reports of the Ministry of Finance, Malaysia.

TABLE A.2
Consolidated Public Sector finance

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999E	2000F
RM Billion											
General Government											
Revenue	37.8	42.7	49.3	52.6	61.1	62.3	70.9	79.8	69.4	68.6	72.5
Current Expenditure	29.6	32.8	37.8	37.7	40.5	41.4	50.5	51.1	50.3	56.1	60.6
Current Surplus/Deficit	8.2	9.9	11.5	15.0	20.6	20.9	20.4	28.6	19.1	12.5	11.9
NFPEs Surplus/Deficit	5.8	11.2	13.5	13.6	14.8	16.0	20.3	27.7	22.5	19.6	21.7
Public Sector Surplus/Deficit	14.0	21.0	25.0	28.6	35.4	36.9	40.8	56.3	41.6	32.1	33.6
Development Expenditure	14.6	21.2	28.9	32.3	28.8	29.8	30.8	40.0	44.3	48.6	48.4
<i>General Government</i>	<i>10.1</i>	<i>11.0</i>	<i>12.7</i>	<i>12.8</i>	<i>12.6</i>	<i>16.2</i>	<i>15.3</i>	<i>18.7</i>	<i>17.1</i>	<i>25.2</i>	<i>25.6</i>
<i>NFPEs</i>	<i>4.5</i>	<i>10.3</i>	<i>16.1</i>	<i>19.5</i>	<i>16.2</i>	<i>13.6</i>	<i>15.5</i>	<i>21.3</i>	<i>27.2</i>	<i>23.4</i>	<i>22.8</i>
Overall Surplus/Deficit	-0.6	-0.2	-3.9	-3.7	6.6	7.1	10.0	16.3	-2.7	-16.4	-14.8
Sources of Finance											
Net Domestic Borrowings	-2.6	-0.9	-3.0	1.0	0.4	5.6	-10.3	-21.8	0.7	10.6	11.4
Net External Borrowings	-3.2	-1.1	-6.9	-2.7	7.1	12.6	-0.3	-5.5	-1.9	-5.8	-3.4

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TABLE A.2
continued

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999E	2000F
Percent of GNP											
General Government											
Revenue	33.1	33.3	34.5	32.1	32.9	29.4	29.3	29.9	25.8	24.4	24.5
Current Expenditure	26.0	25.6	26.5	23.0	21.8	19.5	20.9	19.2	18.7	20.0	20.5
Current Surplus/Deficit	7.2	7.7	8.0	9.1	11.1	9.8	8.5	10.7	7.1	4.5	4.0
NFPEs Surplus/Deficit	5.1	8.7	9.5	8.3	8.0	7.5	8.4	10.4	8.4	7.0	7.3
Public Sector Surplus/Deficit	12.2	16.4	17.5	17.4	19.0	17.4	16.9	21.1	15.5	11.4	11.4
Development Expenditure	12.8	16.5	20.2	19.7	15.5	14.1	12.7	15.0	16.5	17.3	16.3
General Government	8.8	8.5	8.9	7.8	6.7	7.6	6.3	7.0	6.4	9.0	8.7
NFPEs	4.0	8.0	11.3	11.9	8.7	6.4	6.4	8.0	10.1	8.3	7.7
Overall Surplus/Deficit	-0.5	-0.2	-2.7	-2.3	3.6	3.3	4.1	6.1	-1.0	-5.8	-5.0
Annual Percent Change											
General Government Revenue	15.1	12.9	15.4	6.8	16.2	1.9	13.9	12.5	-13.1	-1.1	5.7
Expenditure	11.7	22.3	23.4	5.0	-1.0	2.7	14.2	12.1	3.8	10.7	4.2
<i>Current - General Govt.</i>	9.8	10.8	15.2	-0.3	7.7	2.1	21.9	1.3	-1.7	11.6	8.1
<i>Development - General Govt.</i>	27.7	8.7	16.2	1.0	-2.3	28.8	-5.3	21.9	-8.1	47.1	1.6
<i>Development - NFPEs</i>	-3.7	127.9	57.1	20.5	-16.8	-15.8	13.8	37.6	27.4	-14.0	-2.6
Average RM/US\$	2.7044	2.7498	2.5472	2.5708	2.6205	2.5042	2.5119	2.8105	3.9172	3.8000	3.8000

E = MOF Estimates; F = MOF Forecast.

Source: Economic Reports of the Ministry of Finance, Malaysia.

TABLE A.3
GNP by Demand Aggregate

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999E	2000F
Contribution to Growth (percentage points)											
Domestic Demand	13.2	16.1	4.4	12.7	13.0	15.5	7.5	8.1	-26.9	-1.2	13.6
Consumption	6.9	6.3	3.1	4.2	5.6	6.4	3.5	2.9	-5.9	2.0	6.5
<i>Public</i>	0.8	<i>1.6</i>	0.7	<i>1.1</i>	1.0	0.8	<i>0.1</i>	0.9	-0.9	1.0	0.3
<i>Private</i>	6.0	<i>4.7</i>	<i>2.4</i>	<i>3.1</i>	<i>4.5</i>	<i>5.6</i>	<i>3.4</i>	<i>2.1</i>	-5.0	1.0	<i>6.2</i>
Investment	6.4	9.8	1.3	8.5	7.4	9.1	4.0	5.2	-21.0	-3.2	7.1
Net Exports	-4.2	-6.5	4.4	-2.8	-3.8	-5.7	3.7	-0.7	19.4	6.5	-6.6
Exports	11.9	11.4	9.6	9.1	17.6	17.0	9.0	5.2	-0.2	14.0	8.5
Imports	16.2	18.0	5.2	12.0	21.4	22.7	5.3	5.9	-19.6	7.5	15.1
Real GDP	9.0	9.5	8.9	9.9	9.2	9.8	11.2	7.5	-7.5	5.3	7.0
Factor Payments	1.4	-0.9	-1.8	0.2	-0.2	-0.4	-1.5	-0.1	2.1	-0.2	0.2
Real GNP	10.4	8.6	7.0	10.1	9.0	9.4	9.6	7.4	-5.4	5.1	7.2

E = AMMB estimate F = AMMB forecast.

Source: Bank Negara Malaysia, *Monthly Statistical Bulletin*.

TABLE A.4
Federal Government Revenue

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999E	2000F
RM Billion											
Total Revenue	29.5	34.1	39.3	41.7	49.4	51.0	58.3	65.7	56.7	56.7	59.9
Direct Taxes	10.4	13.3	15.4	17.1	20.2	22.7	25.9	30.4	30.0	26.9	29.1
<i>Corporate</i>	4.5	5.4	7.5	8.6	10.6	11.7	14.2	16.7	17.3	15.6	16.4
<i>Petroleum</i>	2.6	4.1	3.4	2.9	2.2	2.2	2.2	3.9	4.0	3.2	3.7
<i>Personal</i>	2.5	3.0	3.4	4.2	4.6	6.2	6.2	6.4	6.9	6.3	7.0
<i>Others</i>	0.8	0.9	1.0	1.4	2.8	2.6	3.3	3.5	1.8	1.8	2.0
Indirect Taxes	10.8	12.6	13.4	14.8	17.3	19.0	21.4	23.2	15.3	17.5	18.5
<i>Export Duties</i>	2.0	2.0	1.7	1.5	1.2	0.9	1.0	1.1	0.6	0.6	0.6
<i>Import Duties</i>	3.4	4.1	4.4	4.6	5.6	5.6	6.1	6.5	3.9	4.6	4.7
<i>Excise Duties</i>	2.3	2.8	3.1	3.7	4.3	5.3	5.8	6.1	3.6	4.5	4.8
<i>Sales and Service Tax</i>	2.4	2.8	3.1	3.5	4.1	4.9	5.5	6.2	5.3	5.7	6.3
<i>Others</i>	0.7	0.8	1.2	1.6	2.1	2.3	3.0	3.4	2.0	2.1	2.2
Nontax Revenue	8.3	8.2	10.5	9.8	12.0	9.3	11.0	12.1	11.4	12.3	12.3
Annual Percent Change											
Total Revenue	16.8	15.3	15.3	6.2	18.6	3.0	14.4	12.8	-13.7	0.0	5.7
<i>Direct Taxes</i>	33.5	27.4	16.2	10.8	18.1	12.6	13.9	17.7	-1.4	-10.3	8.1
<i>Indirect Taxes</i>	22.1	16.0	6.3	10.9	16.8	9.5	12.9	8.3	-34.0	14.1	5.7
<i>Nontax Revenue</i>	-3.7	-0.7	27.4	-6.6	22.1	-22.4	18.6	10.0	-6.1	8.1	0.2

Percent Share											
Total Revenue	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Direct Taxes</i>	35.2	38.9	39.2	40.9	40.8	44.5	44.4	46.3	52.9	47.5	48.6
<i>Indirect Taxes</i>	36.7	36.9	34.1	35.6	35.0	37.2	36.8	35.3	27.0	30.8	30.9
<i>Nontax Revenue</i>	28.0	24.1	26.7	23.5	24.2	18.2	18.9	18.4	20.1	21.7	20.6
Percent of GNP											
Total Revenue	25.9	26.5	27.5	25.4	26.6	24.0	24.1	24.6	21.1	20.2	20.2
<i>Direct Taxes</i>	9.1	10.3	10.8	10.4	10.8	10.7	10.7	11.4	11.2	9.6	9.8
<i>Indirect Taxes</i>	9.5	9.8	9.4	9.0	9.3	8.9	8.9	8.7	5.7	6.2	6.2
<i>Nontax Revenue</i>	7.3	6.4	7.3	6.0	6.4	4.4	4.6	4.5	4.2	4.4	4.2
Average RM/US\$	2.7044	2.7498	2.5472	2.5708	2.6205	2.5042	2.5119	2.8105	3.9172	3.8000	3.8000

E = MOF Estimates; F = MOF Forecast.

Source: Economic Reports of the Ministry of Finance, Malaysia.

TABLE A.5
Federal Government Current and Development Expenditures

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999E	2000F
	RM Billion										
Total	35.7	37.9	41.8	42.3	46.3	50.6	58.5	60.4	62.7	73.9	76.0
Defense and Security	4.9	6.3	7.0	7.4	7.9	8.9	9.1	8.9	7.3	9.6	9.2
Economic Services	9.0	7.2	8.0	7.8	8.9	9.3	12.0	11.6	13.3	17.7	15.1
<i>Agriculture and Rural Dev.</i>	2.3	2.3	2.4	2.4	2.5	2.5	2.6	2.4	2.1	2.5	2.5
<i>Commerce and Industry</i>	3.3	1.4	1.2	1.2	1.3	1.8	2.7	2.6	4.5	5.6	5.4
<i>Transport</i>	2.4	2.6	3.5	3.4	3.7	4.1	5.6	5.0	4.1	6.3	5.9
<i>Public Utilities</i>	0.8	0.7	0.8	0.6	0.8	0.7	0.7	1.5	2.0	2.8	1.0
<i>Other</i>	0.1	0.1	0.1	0.1	0.6	0.2	0.3	0.2	0.7	0.4	0.3
Social Services	9.9	10.4	12.3	12.6	14.8	15.7	18.8	20.0	20.8	23.4	25.0
<i>Education</i>	6.6	7.1	8.1	8.5	10.1	10.6	12.5	12.9	13.4	15.2	15.6
<i>Medical Services</i>	1.8	2.0	2.4	2.4	2.5	2.8	3.5	3.7	4.0	4.5	4.9
<i>Postal and Broadcasting</i>	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.5
<i>Housing</i>	0.0	0.1	0.1	0.2	0.4	0.4	0.5	0.7	1.0	1.1	1.1
<i>Social and Community</i>	0.5	0.5	0.8	0.5	0.6	0.7	0.9	1.2	1.1	0.9	1.5
<i>Other</i>	0.8	0.5	0.7	0.8	1.0	0.9	1.1	1.1	0.9	1.2	1.3
Other Expenditure	11.9	14.0	14.5	14.6	14.7	16.8	18.6	19.9	21.2	23.3	26.6
<i>Transfer Payments</i>	1.3	1.9	1.2	0.9	0.9	1.1	2.6	2.9	3.3	3.0	3.8
<i>Public Debt Charges</i>	6.8	7.0	7.3	7.2	6.8	6.5	6.8	6.4	6.9	9.0	9.6
<i>Pension</i>	1.2	1.8	2.2	2.3	2.7	2.8	3.5	3.6	3.7	4.1	4.1
<i>General Administration</i>	2.6	3.2	3.9	4.1	4.2	6.4	5.7	6.9	7.3	7.2	9.2

Annual Percent Change											
Total Expenditure	16.4	6.0	10.3	1.4	9.4	9.2	15.5	3.3	3.8	17.9	2.8
<i>Defense and Security</i>	11.1	29.0	11.0	6.0	6.4	13.2	1.9	-1.5	-18.4	31.8	-3.8
<i>Economic Services</i>	40.9	-20.3	11.7	-2.8	15.1	4.0	28.7	-2.9	14.7	32.4	-14.2
<i>Social Services</i>	19.7	5.2	17.6	2.8	17.7	5.6	20.1	6.2	4.4	12.4	6.8
<i>Other Expenditure</i>	2.6	17.2	3.9	0.3	0.9	14.0	11.2	6.7	6.7	9.5	14.5
Percent Share											
Total Expenditure	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Defense and Security</i>	13.6	16.6	16.7	17.4	17.0	17.6	15.5	14.8	11.6	13.0	12.1
<i>Economic Services</i>	25.2	18.9	19.2	18.4	19.3	18.4	20.5	19.2	21.3	23.9	19.9
<i>Social Services</i>	27.8	27.5	29.4	29.8	32.0	30.9	32.2	33.1	33.3	31.7	32.9
<i>Other Expenditure</i>	33.4	36.9	34.8	34.4	31.7	33.1	31.9	32.9	33.9	31.5	35.0
Percent of GNP											
Total Expenditure	31.3	29.5	29.3	25.8	24.9	23.9	24.2	22.6	23.3	26.3	25.7
<i>Defense and Security</i>	4.3	4.9	4.9	4.5	4.2	4.2	3.7	3.3	2.7	3.4	3.1
<i>Economic Services</i>	7.9	5.6	5.6	4.7	4.8	4.4	5.0	4.4	5.0	6.3	5.1
<i>Social Services</i>	8.7	8.1	8.6	7.7	8.0	7.4	7.8	7.5	7.7	8.3	8.5
<i>Other Administration</i>	10.5	10.9	10.2	8.9	7.9	7.9	7.7	7.5	7.9	8.3	9.0
Average RM/US\$	2.7044	2.7498	2.5472	2.5708	2.6205	2.5042	2.5119	2.8105	3.9172	3.8000	3.8000

E = MOF Estimates; F = MOF Forecast.

Source: Economic Reports of the Ministry of Finance, Malaysia.

TABLE A.6
Federal Government Domestic and External Debt

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999E
RM Billion										
Total Debt	94.7	99.1	97.0	95.9	93.1	91.4	89.7	89.9	103.1	112.3
Domestic Debt	70.0	73.7	76.1	76.5	78.3	78.0	79.2	77.0	88.2	94.3
<i>Treasury Bills</i>	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	-
<i>Investment Issues</i>	0.9	0.9	1.0	2.0	4.8	5.1	4.2	2.8	2.0	-
<i>Government Securities</i>	62.1	65.3	66.6	66.0	65.0	63.7	66.9	66.3	75.0	-
2-3 years	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	2.0	-
4-5 years	2.3	2.8	1.9	3.5	2.1	2.1	3.6	5.6	6.5	-
6-10 years	11.1	11.6	13.9	13.3	12.3	11.5	14.1	12.5	15.1	-
11-15 years	12.2	13.2	13.9	12.6	14.0	13.6	12.9	12.6	14.8	-
Above 15 years	36.6	37.6	36.9	36.5	36.5	36.5	35.3	34.6	36.6	-
<i>Other Loans</i>	2.7	3.2	4.1	4.2	4.2	4.9	3.8	3.6	6.9	-
External Debt	24.7	25.4	20.9	19.4	14.8	13.3	10.5	13.0	14.9	18.1
<i>Market Loans</i>	16.2	16.7	12.8	11.6	7.3	6.2	5.2	6.5	7.7	10.5
<i>Project Loans</i>	8.5	8.7	8.1	7.8	7.6	7.1	5.3	6.5	7.2	7.6
Annual Percent Change										
Total Debt	5.3	4.6	-2.1	-1.1	-2.9	-1.8	-1.8	0.3	14.7	8.9
<i>Domestic Debt</i>	6.4	5.2	3.3	0.6	2.3	-0.3	1.5	-2.8	14.6	6.9
<i>External Debt</i>	2.2	2.8	-17.7	-7.5	-23.5	-10.0	-21.5	23.7	15.2	21.2

Percent Share										
Total Debt	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Domestic Debt</i>	73.9	74.3	78.4	79.8	84.1	85.4	88.3	85.6	85.5	83.9
<i>External Debt</i>	26.1	25.7	21.6	20.2	15.9	14.6	11.7	14.4	14.5	16.1
Percent of GNP										
Total Debt	83.1	77.2	68.0	58.5	50.0	43.1	37.1	33.7	38.3	40.0
<i>Domestic Debt</i>	61.4	57.4	53.3	46.7	42.1	36.8	32.7	28.8	32.8	33.6
<i>External Debt</i>	21.7	19.8	14.7	11.8	8.0	6.3	4.3	4.9	5.5	6.4
Average RM/US\$	2.7044	2.7498	2.5472	2.5708	2.6205	2.5042	2.5119	2.8105	3.9172	3.8000

E = MOF Estimates; F = MOF Forecast.

Source: Economic Reports of the Ministry of Finance, Malaysia.

TABLE A.7
Federal Government Domestic Debt - by Holders

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999E
RM Billion										
Total Domestic Debt	70.0	73.7	76.1	76.5	78.3	78.0	79.2	77.0	88.2	94.3
Treasury Bills	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
<i>BNM</i>	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Banking Institutions</i>	3.7	3.3	1.5	1.4	2.6	2.6	1.8	3.9	3.7	3.9
<i>Others</i>	0.6	0.9	2.8	2.9	1.8	1.7	2.5	0.4	0.6	0.4
Investment Issues	0.9	0.9	1.0	2.0	4.8	5.1	4.2	2.8	2.0	2.0
Government Securities	62.1	65.3	66.6	66.0	65.0	64.7	66.9	66.3	75.0	82.3
<i>Public Sector</i>	5.7	5.8	5.2	5.3	4.9	4.8	4.7	4.3	4.2	-
<i>EPF</i>	36.1	38.3	39.6	39.3	40.3	39.2	38.8	38.1	45.7	-
<i>Insurance Companies</i>	1.4	1.9	2.9	3.8	4.0	5.1	5.4	5.3	5.3	-
<i>Central Bank</i>	2.2	1.3	0.3	0.4	0.1	0.1	0.2	0.2	0.1	-
<i>Banking Institutions</i>	11.2	12.4	12.7	11.3	8.3	8.6	11.4	12.7	15.3	-
<i>National Savings Bank</i>	1.6	1.6	1.9	2.1	2.1	2.1	2.0	1.4	1.2	-
<i>Others</i>	3.8	4.0	4.0	4.0	5.3	4.8	4.4	4.5	3.3	-
Other Domestic Borrowings	2.7	3.2	4.1	4.2	4.2	3.9	3.8	3.6	6.9	5.6
Annual Percent Change										
Total Domestic Debt	6.4	5.2	3.3	0.6	2.3	-0.3	1.5	-2.8	14.6	6.9
<i>Treasury Bills</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Government Securities</i>	6.7	5.1	2.1	-0.9	-1.6	-0.4	3.4	-1.0	13.2	9.8
<i>Other Domestic Borrowings</i>	19.3	19.2	29.9	1.9	-0.6	-5.3	-3.0	-5.1	88.8	-18.4

Percent Share										
Total Domestic Debt	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Treasury Bills</i>	6.2	5.9	5.7	5.6	5.5	5.5	5.5	5.6	4.9	4.6
<i>Investment Issues</i>	1.3	1.2	1.3	2.6	6.1	6.5	5.2	3.6	2.3	2.1
<i>Government Securities</i>	88.7	88.6	87.6	86.3	83.0	82.9	84.5	86.1	85.1	87.4
<i>Other Domestic Borrowings</i>	3.8	4.3	5.4	5.5	5.3	5.1	4.8	4.7	7.8	5.9
Percent of GNP										
Total Domestic Debt	61.4	57.4	53.3	46.7	42.1	36.8	32.7	28.8	32.8	33.6
<i>Treasury Bills</i>	3.8	3.4	3.0	2.6	2.3	2.0	1.8	1.6	1.6	1.5
<i>Investment Issues</i>	0.8	0.7	0.7	1.2	2.6	2.4	1.7	1.0	0.7	0.7
<i>Government Securities</i>	54.5	50.9	46.7	40.3	34.9	30.5	27.7	24.8	27.9	29.3
<i>Other Domestic Borrowings</i>	2.3	2.5	2.9	2.6	2.2	1.9	1.6	1.4	2.6	2.0
Average RM/US\$	2.7044	2.7498	2.5472	2.5708	2.6205	2.5042	2.5119	2.8105	3.9172	3.8000

E = MOF Estimates; F = MOF Forecast.

Source: Economic Reports of the Ministry of Finance, Malaysia.

TABLE A.8
Funds Raised in the Capital Market

Year	Public Sector			Private Sector			Total Funds Raised	Public Sector	Private Sector		Total Funds Raised
	New Issue	Redemption	Net Issue	Shares	Bonds	Total			Shares	Bonds	
	RM Billion						Percent Share				
1980	3.27	0.96	2.31	0.14	0.02	0.16	2.47	93.6	5.6	0.8	100.0
1981	4.67	0.89	3.77	0.90	0.00	0.90	4.67	80.7	19.3	0.0	100.0
1982	6.57	1.02	5.55	0.63	0.05	0.68	6.23	89.1	10.1	0.8	100.0
1983	4.30	0.30	4.00	1.26	0.14	1.40	5.40	74.1	23.4	2.5	100.0
1984	4.08	0.93	3.16	1.97	0.39	2.36	5.52	57.2	35.7	7.1	100.0
1985	4.98	1.39	3.59	0.64	0.00	0.64	4.24	84.8	15.2	0.0	100.0
1986	5.62	0.90	4.72	0.19	0.00	0.19	4.91	96.2	3.8	0.0	100.0
1987	8.67	0.98	7.69	1.38	0.40	1.78	9.47	81.2	14.6	4.2	100.0
1988	8.98	1.45	7.53	0.93	1.93	2.86	10.40	72.5	9.0	18.6	100.0
1989	3.91	1.45	2.46	2.51	1.85	4.36	6.82	36.1	36.8	27.2	100.0
1990	5.44	1.63	3.82	8.65	2.13	10.78	14.59	26.1	59.3	14.6	100.0
1991	3.80	0.64	3.16	4.39	1.87	6.26	9.42	33.5	46.6	19.9	100.0
1992	4.30	2.77	1.53	9.18	3.32	12.51	14.04	10.9	65.4	23.7	100.0
1993	3.75	2.57	1.18	3.43	3.64	7.07	8.25	14.3	41.6	44.1	100.0
1994	5.50	3.72	1.78	8.46	9.03	17.49	19.27	9.2	43.9	46.9	100.0
1995	2.75	2.79	-0.04	11.44	8.34	19.78	19.74	-0.2	57.9	42.2	100.0
1996	6.00	4.67	1.33	15.92	14.53	30.46	31.79	4.2	50.1	45.7	100.0
1997	3.79	5.20	-1.41	18.36	16.60	34.96	33.55	-4.2	54.7	49.5	100.0
1998	17.68	7.88	9.80	1.79	6.18	7.96	17.77	55.2	10.1	34.8	100.0
1999	14.98	8.68	6.30	5.94	5.19	11.14	17.43	36.1	34.1	29.8	100.0

Source: Bank Negara Malaysia, *Monthly Statistical Bulletin*.

TABLE A.9
Malaysia's External Debt

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999E	2000F
RM Billion											
Total External Debt	45.9	51.0	56.0	69.2	73.4	85.0	97.8	170.8	161.7	161.3	165.2
Medium and Long Term	41.5	43.8	42.8	51.9	59.1	68.8	72.7	127.5	129.2	132.3	136.2
<i>Public Sector</i>	36.5	37.1	32.3	36.4	34.9	40.7	39.7	65.4	68.2	72.5	76.1
<i>Federal Government</i>	24.7	25.4	20.9	19.4	14.8	13.3	10.5	13.0	14.9	18.1	18.9
<i>NFPEs</i>	11.8	11.7	11.4	17.0	20.1	27.4	29.2	52.5	53.2	54.4	57.2
Private Sector	4.9	6.7	10.5	15.5	24.2	28.1	33.0	62.1	61.0	59.8	60.1
Short-Term Debt	4.4	7.2	13.2	17.3	14.2	16.2	25.2	43.3	32.5	29.0	29.0
Debt-Service Ratio (%)	8.3	7.0	6.9	7.1	5.5	6.6	6.9	5.5	6.6	6.2	n.a.
<i>of which Fed. Govt.</i>	3.6	2.8	3.0	2.7	1.4	1.4	1.1	0.7	1.0	0.8	n.a.
Annual Percent Change											
Total External Debt	1.1	11.0	9.8	23.6	6.1	15.8	15.1	74.5	-5.3	-0.2	2.4
Medium and Long Term	-1.4	5.6	-2.3	21.2	14.0	16.3	5.6	75.4	1.3	2.4	2.9
<i>Public Sector</i>	-2.4	1.5	-12.8	12.5	-3.9	16.6	-2.5	64.8	4.2	6.4	5.0
<i>Federal Government</i>	2.2	2.8	-17.7	-7.5	-23.5	-10.0	-21.5	23.7	15.2	21.2	4.4
<i>NFPEs</i>	-11.0	-1.4	-2.2	49.1	18.4	36.1	6.7	79.4	1.5	2.2	5.2
Private Sector	7.2	36.0	55.7	48.0	56.2	16.0	17.4	88.3	-1.7	-1.9	0.4
Short-Term Debt	32.1	62.4	83.5	31.6	-17.8	13.8	55.2	72.0	-24.8	-10.9	0.0

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TABLE A.9
continued

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999E	2000F
Percent Share											
Total External Debt	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Medium and Long Term	90.4	85.9	76.5	75.0	80.6	80.9	74.3	74.7	79.9	82.0	82.4
<i>Public Sector</i>	79.6	72.7	57.8	52.6	47.6	47.9	40.6	38.3	42.1	44.9	46.1
<i>Federal Government</i>	53.9	49.9	37.4	28.0	20.2	15.7	10.7	7.6	9.2	11.2	11.4
<i>NFPEs</i>	25.7	22.9	20.4	24.6	27.4	32.2	29.9	30.7	32.9	33.7	34.6
Private Sector	10.8	13.2	18.7	22.4	33.0	33.0	33.7	36.4	37.7	37.1	36.4
Short-Term Debt	9.6	14.1	23.5	25.0	19.4	19.1	25.7	25.3	20.1	18.0	17.6
Percent of GNP											
Total External Debt	40.3	39.7	39.2	42.2	39.4	40.1	40.4	64.0	60.1	57.4	55.8
Medium and Long Term	36.4	34.1	30.0	31.6	31.8	32.4	30.0	47.8	48.0	47.1	46.0
<i>Public Sector</i>	32.1	28.9	22.7	22.2	18.8	19.2	16.4	24.5	25.3	25.8	25.7
<i>Federal Government</i>	21.7	19.8	14.7	11.8	8.0	6.3	4.3	4.9	5.5	6.4	6.4
<i>NFPEs</i>	10.4	9.1	8.0	10.4	10.8	12.9	12.1	19.7	19.8	19.4	19.3
Private Sector	4.3	5.2	7.3	9.5	13.0	13.2	13.6	23.3	22.7	21.3	20.3
Short-Term Debt	3.9	5.6	9.2	10.6	7.7	7.6	10.4	16.2	12.1	10.3	9.8
Average RM/US\$	2.7044	2.7498	2.5472	2.5708	2.6205	2.5042	2.5119	2.8105	3.9172	3.8000	3.8000

E = MOF Estimates; F = MOF Forecast.

Source: Economic Reports of the Ministry of Finance, Malaysia.

TABLE A.10
Malaysian Key Economic Indicators

	1994	1995	1996	1997	1998	1999E	2000F	2001F
1987 GDP (% Change)	9.2	9.8	10.0	7.5	-7.5	5.3	7.0	6.5
Agriculture	-1.9	-2.5	4.5	0.4	-4.5	4.4	3.8	4.1
Mining	6.0	22.9	2.9	2.9	1.8	-3.5	-0.5	0.5
Manufacturing	11.4	11.4	18.2	10.4	-13.7	13.6	10.5	11.4
Construction	15.1	21.1	16.2	10.6	-23.0	-5.8	6.1	5.7
Services	10.1	10.2	8.9	9.9	-0.8	2.4	6.0	5.6
1987 GNP (% Change)	9.0	9.4	9.6	7.4	-5.4	5.1	7.2	6.9
Consumption	9.1	10.5	5.6	4.9	-10.2	3.5	11.8	13.6
<i>Private</i>	9.4	11.7	6.9	4.3	-10.8	2.3	14.3	16.7
<i>Public</i>	7.9	6.0	0.8	7.6	-7.8	8.5	2.8	2.0
Investment	17.8	20.3	5.8	11.2	-42.9	-2.8	25.1	17.6
Aggregate Domestic Demand	12.6	14.6	5.7	7.7	-25.2	-1.5	16.9	19.7
Exports	21.9	19.0	9.2	5.4	-0.2	13.8	7.7	5.2
Imports	25.6	23.7	4.9	5.7	-19.4	8.5	16.6	16.4
Per capita Income								
Ringgit	9,251	10,251	11,429	12,314	12,134	12,125	12,803	13,927
(% change)	10.4	10.8	11.5	7.7	-1.5	-0.1	5.6	8.8
US dollar	3,617	4,094	4,550	4,381	3,094	3,191	3,658	4,220
(% change)	16.6	13.2	11.1	-3.7	-29.4	3.1	14.6	15.4
Saving-Invest Ratio (% of GNP)								
Gross Investment	43.3	45.8	43.5	45.3	28.2	25.2	34.6	38.1
Gross Savings	35.3	35.6	38.9	39.4	41.9	44.0	42.0	40.8
Resource Balance	-7.9	-10.2	-4.6	-5.9	13.7	18.8	7.4	2.7
Current Account of BOP (RMB)								
Merchandise Balance	4.5	0.1	10.1	10.3	69.0	87.6	71.2	43.2
Services Balance	-17.0	-19.2	-18.4	-22.7	-22.3	-24.9	-30.7	-27.8
Net Transfers	-2.2	-2.5	-2.9	-3.3	-9.9	-7.7	-8.4	-5.2
Current Account Bal.	-14.8	-21.6	-11.2	-15.8	36.7	55.0	32.0	10.2
<i>Percent of GNP</i>	-7.9	-10.2	-4.6	-5.9	13.7	20.0	10.8	3.1
Trade Balance								
Balance (RMB)	-2.0	-9.4	-0.3	0.4	58.4	72.8	52.9	28.3
<i>Exports-f.o.b</i> (% yoy)	27.0	20.2	6.5	12.4	29.8	12.0	17.3	5.7
<i>Imports-c.i.f.</i> (% yoy)	32.8	24.6	1.5	12.0	3.3	9.1	29.9	14.2
CPI (%)	3.7	3.4	3.5	2.7	5.3	2.8	3.0	3.0
PPI (%)	4.9	5.5	2.3	2.6	12.0	5.0	3.0	4.0
Unemployment (%)	2.9	2.8	2.6	2.6	3.2	3.5	2.8	2.5
Base Lending Rate (%)	6.55	7.70	9.00	10.25	8.05	6.80	6.00	6.00
Interbank Three-Month (%)	5.41	6.74	7.31	9.10	6.40	3.05	4.00	4.70
End-Period RM/US\$	2.56	2.54	2.53	3.88	3.80	3.80	3.50	3.00

E = AMMB estimate F = AMMB forecast.

Source: Bank Negara Malaysia, *Monthly Statistical Bulletin*.

TABLE A.11
Monetary and Banking Statistics

Year	M1		M2		M3		Loans		Deposits		LD Ratio
	RM Bil.	% YOY	RM Bil.	% YOY	RM Bil.	% YOY	RM Bil.	% YOY	RM Bil.	% YOY	%
1980	9.8	15.0	28.0	29.0	32.7	28.4	25.7	35.6	30.3	26.4	84.9
1981	11.0	12.8	32.8	17.1	38.1	16.4	31.7	23.1	37.9	25.2	83.5
1982	12.5	13.3	37.9	15.6	44.4	16.6	37.3	17.8	44.7	17.7	83.6
1983	13.4	7.7	42.3	11.5	51.7	16.6	47.0	25.8	52.9	18.4	88.8
1984	13.4	-0.6	47.7	12.9	59.8	15.6	56.9	21.1	63.6	20.3	89.4
1985	13.6	1.7	50.4	5.6	65.6	9.8	65.1	14.4	70.2	10.3	92.7
1986	14.0	2.8	56.1	11.3	71.4	8.8	69.0	6.1	75.2	7.2	91.7
1987	15.8	13.0	59.8	6.6	74.9	4.9	69.4	0.5	77.2	2.6	89.9
1988	17.8	13.1	64.1	7.2	81.0	8.1	76.3	10.0	84.2	9.2	90.6
1989	21.2	19.1	74.4	16.1	97.7	20.6	92.5	21.3	96.5	14.6	95.9
1990	24.2	14.1	83.9	12.8	115.4	18.2	114.0	23.2	120.8	25.1	94.4
1991	26.9	11.0	96.1	14.5	133.1	15.3	138.8	21.7	143.2	18.5	96.9
1992	30.4	13.0	114.5	19.1	159.2	19.6	152.5	9.9	166.4	16.2	91.6
1993	41.8	37.5	139.8	22.1	196.6	23.5	170.8	12.0	205.1	23.3	83.2
1994	46.5	11.2	160.4	14.7	222.3	13.1	195.8	14.7	232.1	13.1	87.6
1995	51.9	11.7	198.9	24.0	271.9	22.3	251.9	28.6	282.9	21.9	92.2
1996	60.6	16.7	238.2	19.8	329.7	21.2	333.0	32.2	358.8	26.8	93.2
1997	63.4	4.6	292.2	22.7	390.8	18.5	421.0	26.5	433.3	20.8	97.2
1998	54.1	-14.6	296.5	1.5	401.5	2.7	414.7	-1.5	431.4	-0.4	96.1
1999	72.3	33.6	330.9	6.7	434.7	8.3	393.9	-4.5	449.1	4.1	84.1

M1 = coin and currency notes + demand deposits.

M2 = M1 + quasi-money.

Quasi-money = (savings deposits + fixed deposits + NIDs issued + repos) of the private sector at commercial banks.

M3 = M2 + broad quasi-money.

Broad quasi-money = (savings deposits + fixed deposits + NIDs issued + repos) of the private sector at finance companies, Merchant banks, discount houses, and Bank Islam.

= Loans and deposits of the banking system comprising commercial banks, finance companies, and merchant banks.

Source: Bank Negara Malaysia, *Monthly Statistical Bulletin*.

TABLE A.12
Outstanding Public and Private Debt Securities

Year	Government Bonds				Private Sector			Total Bonds Raised
	MGS	GICs	MSB & KBs	Sub-total	Debt Securities	Cagamas	Sub-total	
RM Billion								
1991	65.3	1.0	0.0	66.3	5.3	3.9	9.2	75.4
1992	66.6	1.0	1.4	69.0	7.2	4.3	11.5	80.5
1993	66.0	2.0	1.2	69.2	10.0	5.0	15.0	84.2
1994	65.0	4.8	1.2	70.9	15.1	8.9	24.1	95.0
1995	64.7	5.1	1.1	70.9	22.7	9.3	32.0	102.9
1996	66.9	4.2	1.1	72.2	33.5	13.2	46.8	118.9
1997	66.3	2.8	1.9	70.9	46.6	16.8	63.4	134.3
1998	75.0	2.0	18.5	95.5	46.8	15.1	61.9	157.3
Percent Share								
1991	86.5	1.3	0.0	87.8	7.0	5.1	12.2	100.0
1992	82.8	1.2	1.7	85.8	8.9	5.3	14.2	100.0
1993	78.4	2.4	1.4	82.2	11.9	6.0	17.8	100.0
1994	68.4	5.1	1.2	74.7	15.9	9.4	25.3	100.0
1995	62.9	4.9	1.1	68.9	22.1	9.0	31.1	100.0
1996	56.3	3.5	0.9	60.7	28.2	11.1	39.3	100.0
1997	49.3	2.0	1.4	52.8	34.7	12.5	47.2	100.0
1998	47.7	1.3	11.7	60.7	29.7	9.6	39.3	100.0
Percent Change								
1992	2.1	0.0	-	4.2	35.2	10.3	24.8	6.7
1993	-0.9	100.0	-16.2	0.2	39.1	17.6	31.1	4.6
1994	-1.6	140.0	0.0	2.5	51.3	78.0	60.2	12.8
1995	-0.4	5.2	-3.9	-0.1	50.0	4.3	33.1	8.3
1996	3.4	-17.8	-3.4	1.8	47.7	42.0	46.1	15.5
1997	-1.0	-33.7	75.6	-1.7	39.0	26.7	35.5	12.9
1998	13.2	-27.3	862.2	34.6	0.4	-10.1	-2.4	17.2
Percent of GDP								
1991	48.3	0.7	0.0	49.0	3.9	2.9	6.8	55.8
1992	44.2	0.7	0.9	45.8	4.8	2.8	7.6	53.4
1993	38.3	1.2	0.7	40.2	5.8	2.9	8.7	48.9
1994	33.2	2.5	0.6	36.3	7.7	4.6	12.3	48.6
1995	29.1	2.3	0.5	31.9	10.2	4.2	14.4	46.3
1996	26.4	1.6	0.4	28.4	13.2	5.2	18.4	46.9
1997	23.5	1.0	0.7	25.2	16.5	5.9	22.5	47.6
1998	26.4	0.7	6.5	33.6	16.5	5.3	21.7	55.3

Source: Annual Reports of Bank Negara Malaysia.

TABLE A.13
Volume of Transactions in Interbank Money Market

Year	TOTAL	Inter-bank Deposits	Money Market Instrument								
			Sub- total	MGS MGS	Khazanah Bond	Cagamas Bonds	MTBs	BN Bills	Cagamas Notes	NIDs	BAs
Total in RM Billions											
1994	912.4	805.1	107.3	10.9	0.0	8.6	3.6	5.7	0.0	37.6	41.0
1995	885.0	742.7	142.4	3.8	0.0	16.2	3.8	12.4	0.0	43.4	62.9
1996	1,155.8	973.5	182.3	25.4	0.0	2.5	2.8	14.1	1.7	54.8	81.0
1997	1,860.6	1,673.6	187.0	12.4	0.0	3.7	4.3	12.4	12.6	56.4	85.2
1998	1,824.0	1,650.7	173.3	27.3	1.4	2.4	6.7	0.0	13.1	43.1	79.3
1999	1,386.2	1,189.3	196.9	54.3	5.1	9.5	8.9	0.0	23.9	27.2	67.9
Monthly Average in RM Billions											
1994	76.0	67.1	8.9	0.9	0.0	0.7	0.3	0.5	0.0	3.1	3.4
1995	73.8	61.9	11.9	0.3	0.0	1.3	0.3	1.0	0.0	3.6	5.2
1996	96.3	81.1	15.2	2.1	0.0	0.2	0.2	1.2	0.1	4.6	6.8
1997	155.1	139.5	15.6	1.0	0.0	0.3	0.4	1.0	1.0	4.7	7.1
1998	152.0	137.6	14.4	2.3	0.1	0.2	0.6	0.0	1.1	3.6	6.6
1999	115.5	99.1	16.4	4.5	0.4	0.8	0.7	0.0	2.0	2.3	5.7
Percent Share											
1994	100.0	88.2	11.8	1.2	0.0	0.9	0.4	0.6	0.0	4.1	4.5
1995	100.0	83.9	16.1	0.4	0.0	1.8	0.4	1.4	0.0	4.9	7.1
1996	100.0	84.2	15.8	2.2	0.0	0.2	0.2	1.2	0.1	4.7	7.0
1997	100.0	90.0	10.0	0.7	0.0	0.2	0.2	0.7	0.7	3.0	4.6
1998	100.0	90.5	9.5	1.5	0.1	0.1	0.4	0.0	0.7	2.4	4.3
1999	100.0	85.8	14.2	3.9	0.4	0.7	0.6	0.0	1.7	2.0	4.9

Source: Bank Negara Malaysia, *Monthly Statistical Bulletin*.

TABLE A.14
Capital Structure of Malaysian Corporations

Year	Bank Borrowings (Net Change)	Equity (New Issues)	Bonds (New Issues)	Total
RM Billion				
1989	10.8	2.5	1.9	15.2
1990	12.5	8.6	2.1	23.3
1991	11.5	4.4	1.9	17.7
1992	4.5	9.2	3.3	17.0
1993	6.9	3.4	3.6	14.0
1994	9.6	8.5	9.0	27.1
1995	36.6	11.4	8.3	56.3
1996	48.4	15.9	14.5	78.9
1997	53.4	18.4	16.6	88.4
1998	-6.2	1.8	6.2	1.8
1999	11.2	5.9	5.2	22.3
Percent Share				
1989	71.3	16.5	12.2	100.0
1990	53.8	37.1	9.1	100.0
1991	64.6	24.8	10.6	100.0
1992	26.4	54.1	19.6	100.0
1993	49.5	24.5	26.0	100.0
1994	35.4	31.2	33.4	100.0
1995	64.9	20.3	14.8	100.0
1996	61.4	20.2	18.4	100.0
1997	60.5	20.8	18.8	100.0
1998	-341.4	99.1	342.3	100.0
1999	50.1	26.6	23.3	100.0
Percent Change				
1990	16.1	244.9	14.9	53.7
1991	-8.7	-49.2	-12.0	-24.0
1992	-60.9	109.1	77.5	-4.2
1993	55.0	-62.6	9.5	-17.5
1994	38.0	146.4	148.2	93.2
1995	281.8	35.2	-7.7	108.1
1996	32.4	39.2	74.3	40.0
1997	10.4	15.3	14.1	12.1
1998	-111.5	-90.3	-62.8	-98.0
1999	-281.8	232.4	-15.9	1,138.1

Note: Bank borrowings = loans of the banking system which exclude credit for residential properties, consumption and others.

Source: Bank Negara Malaysia.

TABLE A.15
Outstanding MGS Issues (31 July 1999)

MGS Loan No.	Year Raised	Coupon (%p.a)	Maturity Date	Amount (RM Mil)	Coupon	Payment	Period to Run		Indicative Middle Price (‘100)	Gross Redemp. Yields (%)	Flat Yields (% p.a)
							Year	Months			
1	1984	8.000	15 Sep 99	100	15 Mar	15 Sep	0	1.5	100.65	2.7914	7.9482
3	1979	7.750	30 Sep 99	426	31 Mar	30 Sep	0	2.0	100.82	2.8205	7.6871
3	1981	8.300	15 Oct 99	500	15 Apr	15 Oct	0	2.5	101.13	2.8496	8.2076
3	1992	7.450	30 Nov 99	1,300	31 May	30 Nov	0	4.0	101.50	2.9180	7.3402
3	1986	7.800	1 Dec 99	200	01 Jun	01 Dec	0	4.1	101.63	2.9193	7.6753
1	1980	8.000	31 Mar 00	600	31 Mar	30 Sep	0	8.1	103.23	3.0709	7.7493
2	1980	8.000	15 Jul 00	750	15 Jan	15 Jul	0	11.5	104.50	3.2001	7.6558
2	1989	6.750	31 Jul 00	1,000	31 Jan	31 Jul	0	0.1	103.34	3.3352	6.5318
4	1987	6.285	15 Sep 00	1,200	15 Mar	15 Sep	1	1.6	103.05	3.4779	6.0795
3	1980	8.500	15 Dec 00	600	15 Jun	15 Dec	1	4.6	106.30	3.7601	7.9965
3	1990	8.375	28 Dec 00	1,136	28 Jun	28 Dec	1	5.0	106.23	3.8004	7.8840
1	1981	8.500	31 Jan 01	1,000	31 Jan	31 Jul	1	6.1	106.64	3.9059	7.9706
1	1986	8.000	15 Mar 01	300	15 Mar	15 Sep	1	7.5	106.17	4.0392	7.5350
1	1998	8.112	16 Apr 01	2,000	16 Apr	16 Oct	1	8.6	106.50	4.1385	7.6171
2	1981	8.500	15 May 01	1,300	15 May	15 Nov	1	9.5	107.29	4.2284	7.9222
1	1996	6.480	18 Jun 01	2,000	18 Jun	18 Dec	1	10.7	103.84	4.3338	6.2404
3	1981	8.500	15 Oct 01	500	15 Apr	15 Oct	2	2.6	108.12	4.5907	7.8619
1	1982	8.500	15 Feb 02	1,200	15 Feb	15 Aug	2	6.6	108.77	4.7953	7.8146
1	1999	5.624	30 Mar 02	2,000	30 Sep	30 Mar	2	8.0	101.87	4.8668	5.5210
2	1982	8.500	31 Mar 02	2,200	31 Mar	30 Sep	2	8.1	108.98	4.8684	7.7998
1	1991	8.350	30 Apr 02	500	30 Apr	31 Oct	2	9.0	108.72	4.9183	7.6801
2	1995	6.720	18 Sep 02	1,000	18 Mar	18 Sep	3	1.7	104.63	5.1011	6.4227
2	1997	8.157	18 Nov 02	2,000	18 May	18 Nov	3	3.7	109.04	5.1407	7.4807
1	1983	8.500	1 Mar 03	1,100	01 Mar	01 Sep	3	7.1	110.65	5.2076	7.6822

1	1990	6.750	15 Mar 03	700	15 Mar	15 Sep	3	7.5	105.00	5.2167	6.4285
2	1992	8.275	30 Jun 03	1,500	30 Jun	31 Dec	3	11.0	110.45	5.2862	7.4923
2	1983	8.500	1 Jul 03	1,200	01 Jan	01 Jul	3	11.1	111.24	5.2868	7.6412
2	1998	9.030	15 Jul 03	2,500	15 Jan	15 Jul	3	11.5	113.18	5.2959	7.9787
3	1982	8.600	30 Sep 03	1,100	31 Mar	30 Sep	4	2.1	112.02	5.3425	7.6772
2	1996	6.586	30 Sep 03	2,000	30 Mar	30 Sep	4	2.1	104.58	5.3425	6.2973
1	1989	6.750	15 Mar 04	500	15 Mar	15 Sep	4	7.6	105.28	5.4417	6.4114
2	1999	5.337	15 Mar 04	2,000	15 Jun	15 Dec	4	10.6	99.32	5.4964	5.3736
2	1984	8.500	15 Jun 04	1,200	15 Jun	15 Dec	4	10.6	112.69	5.4964	7.5430
2	1991	8.350	30 Jul 04	700	30 Jan	30 Jul	5	0.1	112.19	5.5258	7.4425
1	1984	8.500	15 Sep 04	1,300	15 Mar	15 Sep	5	1.6	112.69	5.6142	7.5426
3	1983	8.600	31 Oct 04	1,000	30 Apr	31 Oct	5	3.1	112.99	5.7008	7.6115
1	1994	5.000	15 Apr 05	2,500	15 Apr	15 Oct	5	8.6	95.15	6.0133	5.2546
3	1998	7.424	30 Sep 05	2,450	31 Mar	30 Sep	6	2.1	106.00	6.2355	7.0039
2	1990	8.500	2 Oct 05	1,500	02 Apr	02 Oct	6	2.2	111.44	6.2363	7.6274
3	1984	8.600	15 Dec 05	1,800	15 Jun	15 Dec	6	4.6	112.10	6.2669	7.6718
3	1985	8.500	15 Dec 05	1,550	15 Jun	15 Dec	6	4.6	111.58	6.2669	7.6179
1	1989	6.850	15 Mar 06	500	15 Mar	15 Sep	6	7.6	102.91	6.3042	6.6563
1	1985	8.600	15 Apr 06	1,300	15 Apr	15 Oct	6	8.6	112.32	6.3170	7.6570
2	1985	8.600	1 Sep 06	1,200	01 Mar	01 Sep	7	1.2	112.52	6.3750	7.6428
3	1996	6.812	29 Nov 06	2,000	29 May	29 Nov	7	4.1	102.29	6.4130	6.6593
3	1986	8.500	1 Dec 06	850	01 Jun	01 Dec	7	4.1	112.05	6.4139	7.5862
1	1986	8.600	15 Mar 07	1,300	15 Mar	15 Sep	7	7.6	112.73	6.4583	7.6290
1	1989	6.900	15 Mar 07	500	15 Mar	15 Sep	7	7.6	102.62	6.4583	6.7240
2	1986	8.600	15 Jul 07	1,200	15 Jan	15 Jul	7	11.6	112.82	6.5104	7.6231
1	1997	7.284	15 Oct 07	1,000	15 Apr	15 Oct	8	2.6	104.66	6.5392	6.9597
3	1986	8.600	1 Dec 07	850	01 Jun	01 Dec	8	4.1	112.98	6.5529	7.6122
1	1987	7.600	15 Mar 08	650	15 Mar	15 Sep	8	7.6	106.60	6.5837	7.1296
2	1988	6.450	1 Jul 08	1,000	01 Jan	01 Jul	8	11.1	98.89	6.6154	6.5223

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TABLE A.15
continued

MGS Loan No.	Year Raised	Coupon (%p.a)	Maturity Date	Amount (RM Mil)	Coupon	Payment	Period to Run		Indicative Middle Price (‘100)	Gross Redemp. Yields (%)	Flat Yields (% p.a)
							Year	Months			
3	1988	6.450	30 Nov 08	2,600	31 May	30 Nov	9	4.1	98.59	6.6541	6.5425
6	1998	7.005	15 Dec 08	2,000	15 Dec	15 Jun	9	4.6	102.38	6.6578	6.8420
1	1989	7.000	15 Mar 09	500	15 Mar	15 Sep	9	7.6	102.24	6.6800	6.8470
3	1991	8.500	30 Nov 12	1,000	31 May	30 Nov	13	4.2	112.89	6.9958	7.5291
4	1998	8.000	30 Oct 13	3,000	30 Apr	30 Oct	14	3.0	108.58	7.0348	7.3678
5	1998	8.000	30 Oct 18	3,000	30 Apr	30 Oct	19	3.0	109.91	7.0500	7.2788
Total				74,862							

Source: Rating Agency Malaysia Berhad.

TABLE A.16
List of Principal Dealers (1 January 2000)

Commercial Banks

Malayan Banking Berhad
Bumiputera-Commerce Bank Berhad
Public Bank Berhad
Standard Chartered Bank Berhad
Citibank Berhad
OCBC Berhad
RHB Bank Berhad
Hong Leong Bank Berhad

Merchant Banks

Arab-Malaysian Merchant Bank Berhad
Commerce International Merchant Bankers Berhad

Discount Houses

KAF Discount Berhad
Amanah-Short deposits Malaysia Berhad
