

MASTER OF BUSINESS ADMINISTRATION

MANAGEMENT CENTER

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

.....
.....
.....
.....
.....

.....



**MALAYSIAN BOND MARKET:
HISTORY , PROBLEMS AND SOLUTIONS**

BY

CHANDIRA BOSE SUBRAMANIAM

MBA PROJECT PAPER

**Submitted to the
Management Centre
International Islamic University of Malaysia**

**In partial Fulfillment of the Requirements
For the degree of
Master of Business Administration**

TABLE OF CONTENTS

<i>Acknowledgements</i>	v
<i>Abstract</i>	vi
LIST OF TABLES	vii
LIST OF APPENDICES	viii
CHAPTER 1 : OVERVIEW	
1.1 Introduction	1
CHAPTER 2 : HISTORY OF THE MALAYSIAN BOND MARKET	
2.1 Introduction	5
2.1.1 The period from of 1960 to 1979	5
2.1.2 The period from 1980 to 1998	9
2.2 Private Debt Securities	10
2.2.1 Islamic Private Debt Securities.	12
2.3 Market Size and Growth	13
CHAPTER 3 : PROBLEMS AND PROSPECTS	
3.1 Introduction	15
3.1.1 Meeting requirements	16
3.1.2 Cost Saving	17
3.1.3 Issuing period	18
3.1.4 Bank Financing	18
3.1.5 BNM Regulation	18

3.1.6	Economic Conditions	19
3.2	Prospects	20
CHAPTER 4 : PROPOSED SOLUTIONS		
4.1	Introduction	22
4.1.1	Lower Transaction Costs	22
4.1.2	National Bond Fund	23
4.1.3	Exemptions from Tax	25
4.1.4	Expansion of Institutional Investor Base	25
4.1.5	Financial Guarantee Insurer	27
4.1.6	Liberalisation	28
4.1.7	Bond Exchange	29
CHAPTER 5 : ANALYSIS OF BOND RETURNS		
5.1	Introduction	30
5.2	Method of Analysis	30
5.2.1	Returns on Bonds	31
5.2.2	Returns on Common Stock	32
5.2.3	Returns on Malaysian Government Securities	33
5.3	Analysis	33
CHAPTER 6 : CONCLUSION		39

Acknowledgements

I would like to take this opportunity to thank my family members for their continuous support and trust during the entire course. They have been the driving force behind my achievement.

Thanks are also due to Ms. Megalah Devi who supported me financially and emotionally from the beginning of the course. Her undivided love and support throughout the course turned to strong encouragement for the successful in completion of the course and the project paper.

Not to forget, a special vote of thanks to all my friends, office mates and relatives who contributed as much as they could to my success.

Last but not least, I would like to express my gratitude to Dr. Azmi Bin Omar for his valuable guidance, comments and support in the completion of the paper.

Abstract

This paper analyses the History of the Malaysian Bond market from 1960 to 1998. The Malaysian Bond market which categorized into Malaysian Government Securities (MGS) and Corporate Bonds is divided into two periods . The first period was from 1960 to 1979 and the second was from 1980 to 1998. The study shows that MGS were the only bonds with significant value in both periods whereas the corporate bond began its active trading only in the second period i.e. from the mid-1980's onwards.

Even though the Malaysian Government through Bank Negara Malaysia has taken various measures to boost the market, it is still lagging behind other markets in the region such as Korea, Japan and Hong Kong. As such, the study analysed the problems faced by the Bond market which had blocked the significant growth in Malaysian Bonds. In order to boost the Bond Market, about six solutions have been proposed in terms of rules and regulations and financial aspects.

Finally, an in-depth analysis was conducted on the return of Malaysian Corporate Bonds. This is simply to measure the return that an investor is able to gain by investing in the Bond market as compared to Malaysian Government Securities and the Kuala Lumpur Composite Index.

LIST OF TABLES

- TABLE 1 : Issuance of Malaysian Government Securities between 1961 and 1985.**
- TABLE 2 : Public Development Expenditure between 1956 and 1985.**
- TABLE 3 : Market size and growth for Malaysian Government Securities (MGS), Public Debt Securities (PDS) and Bank Loan.**
- TABLE 4 : Bonds graded between the years 1996 and 1999.**
- TABLE 5 : Cost involved in Bond issuance and Bank financing.**
- TABLE 6 : Malaysian Managed Fund in 1999**
- TABLE 7 : EPF investment in 1999**
- TABLE 8 : Insurance companies' investment in 1999**
- TABLE 9 : Percentage Bonds Graded with Bank Guarantees attached on them.**
- TABLE 10 : Outstanding low graded Bonds between 1996 and 1999.**
- TABLE 11 : Returns on Malaysian Government Securities, KL Composite Index, Non-convertible PDS, Convertible PDS and All PDS.**
- TABLE 12 : Min, Max., Mean and Standard Deviation for return on MGS, KLSE CI, Convertible and Non-Convertible bonds.**
- TABLE 13 : Excess return convertible PDS over MGS and KLCI over MGS.**
- TABLE 14 : Excess return non-convertible PDS over MGS and KLCI over MGS**

LIST OF APPENDICES

- APPENDIX I : CALCULATION OF CUMULATIVE BOND RETURN FOR EACH YEAR FROM 1990 TO 1995.**
- APPENDIX II : LIST OF MALAYSIAN GOVERNMENT SECURITIES USED IN THE STUDY.**
- APPENDIX III : RETURN ON KLSE CI FROM JAN 1990 – DEC 1995.**
- APPENDIX IV : LIST OF CONVERTIBLE BONDS USED IN THE STUDY.**
- APPENDIX V : LIST OF NON-CONVERTIBLE BONDS USED IN THE STUDY.**

CHAPTER ONE

OVERVIEW

1.1 INTRODUCTION

A bond is simply a long term loan. Governments and Corporations borrow money by selling bonds to investors. The money they collect when the bond is issued or sold to the public is the amount of the loan. In return they agree to make specified payments to the bond holders (“the lenders”). At the maturity the debt is repaid.

In short, A bond is a debt instrument requiring the issuer (also known as the debtor or borrower) to repay the lender or investor the amount borrowed plus interest over some specified period of time.

According to David M. Darst, in most developed nations like U.S.A., Britain, Japan, Germany and parts of Europe, the bond market is an active market. Engagement in primary as well as secondary trading is common. Once dominated by government issuance, bond markets in the last decade became popular among corporate players.

The realisation of the benefits of bonds has prompted corporations to issue them. On the other hand, higher bond returns have attracted many investors to focus on the bond market. In short, benefits for both parties, issuers and lenders, have created the right atmosphere for active growth in the bond markets in developed countries.

Although bond markets became active in the last decade, global bond investment has a long history.

Comparing the Asian Bond markets with those of developed nations, the former are growing at a much slower pace. According to a study on Asian Bond markets published in 1995, the World Bank concluded that Emerging Asia's financial assets totalled around US\$ 4 trillion at the end of 1995, which is only about a quarter the size of the total US financial assets. Nevertheless, then the World Bank forecasted that the Bond market would grow dramatically given the growth in the region. As forecasted, the Bond market did increase tremendously, rising from US\$344 billion in 1992 to US\$487 billion in 1998. The world bank estimates that the size of the Emerging Asian bond market will increase about fold four to US\$1 trillion by 2004. Despite the large projected size, it is still small compared to developed bond markets such as the US.

The Malaysian bond market was already well established by the late 1980's but was dominated by government bonds. The missing market was the corporate bonds market which was non-existent prior to 1986. As compared to other established Asian Bond markets, such as Japan, Korea, Hong Kong and Singapore, the Malaysian Bond market is growing steadily but at a much slower pace.

The objective of this study is first to trace the development of the Bond market over a period of two decades. Secondly, to conduct an analysis on the problems faced by the Bond market over these two periods. In conjunction with discussing the problems, a further objective of the study is to propose solutions as to how to boost the Malaysian Bond market. The most important factor in

to propose solutions as to how to boost the Malaysian Bond market. The most important factor in the Bond market is the return. As such, the objective is to study and to analyse the return on Malaysian Government Securities, Convertible bonds, Non-convertible bonds and Common Shares.

The first chapter is an overview of the study. In this chapter, the objectives of the study are illustrated. The second chapter of the study looks into the history of the Malaysian Bond market which is divided into 2 periods i.e. from 1960 to 1979 and from 1980 to 1998. The first period is focused on the Malaysian Government Securities whereas the second period is more focused on Public Debt Securities which includes Islamic Bonds.

In the third chapter, a study is conducted on the problems faced by the Malaysian Bond market. Six problems are identified which hinder the smooth development of the Bond market. Among the problems identified are meeting requirements, costs involved in the issuance of Bonds, lengthy bond issuing periods, companies opting for bank financing, BNM regulations and economic conditions. The prospect of the Bond market is also described.

Chapter four suggests seven solutions on how to boost the Malaysian Bond market. The creation of a National Bond Fund is the first solution proposed. It is expected that by setting-up a National Bond Fund funds can be mobilized from retail investors. Secondly, to boost the demand, exemption from tax is proposed for all classes of investors. Other solutions include the expansion of the institutional investor base, the setting-up of Financial Guarantee Insurer (FGI),

the Liberation of rules and regulations and lastly the setting-up a Bond Exchange for an efficient clearing and settlement system.

In chapter 5, returns on Malaysian Government Securities, Convertible and Non-Convertible Bonds and Common Shares over a period of 72 months i.e. from January 1990 to December 1995 are calculated. A comparison between the return on the bonds and the Kuala Lumpur Stock Exchange Composite Index which represents the common shares return is calculated. A comparison between returns on the bonds and common shares is made to determine whether Malaysian Government Securities, Convertible/Non-Convertible Bonds or Common shares offer higher returns. Chapter 6, the final chapter, is the conclusion of the study.

CHAPTER 2

HISTORY OF THE MALAYSIAN BOND MARKET

2.1 INTRODUCTION

When we look at the history of the world bond market, the government bonds dominated the market at first in most of the developed countries like U.S.A., Japan, Germany and parts of Europe. Government bonds dominated the bond market until the late 1960's. Only in the 1970's did large established corporations start actively issuing bonds to finance their expansion. In Japan, the first government bond was issued in 1872.

Similarly the Malaysian Bond Market was born with the issuance of Malaysian Government Securities ("MGS"). Before the mid-1980's the only bonds in the Malaysian Capital Market of significant value were the MGS. Similar to the rest of the world, the Malaysian Bond Market can be divided into two main issuers; the government and the corporate sector. The history of Malaysian Bond Market can be divided into 2 periods; the Bond market from 1960 to 1979 and from 1980 to 1999.

2.1.1 THE PERIOD FROM 1960 TO 1979

The MGS have denominated the bond market since the 1960's. Although MGS have existed since the 1950's their value was quite insignificant. Table 1 shows the issuance of MGS for a period of 20 years i.e. from 1960 to 1980. It shows shows a moderate growth in MGS from 1960 up to 1980; an increase of approximately RM9,000 million. However, from 1981 onwards there was a sharp increase in the issuance of MGS; a growth of RM10.0 million within 5 years (from 1981 to 1985).

was a sharp increase in the issuance of MGS; a growth of RM10.0 million within 5 years (from 1981 to 1985).

Table 1 : Issuance of Malaysian Government securities between 1961 and 1985.

Period	Gross issue	Redemption (RM'million)	Net issue
1961 - 1965	967.5	78.6	888.9
1966 - 1970	1997.4	252.7	1744.7
1971 - 1975	4875.0	996.4	3878.6
1976 - 1980	12,250.0	2,866.6	9,383.4
1981 - 1985	24,030.0	4,208.4	19,821.6

Source : *Money and Banking in Malaysia 1959 - 1989 :BNM*

Based on the report By BNM in Money & Banking in Malaysia 1959 - 1989, 3 major factors had kept the issuance of MGS inactive. First, before 1980, the Government generally kept the overall budget in balance, reflecting in the main, the procyclical stance of fiscal policy. Due to this policy (factor) there was little need to borrow by issuing bonds. Secondly, the 1960's and 1970's were the years during which Malaysia heavily relied on commodities as a major source of income. Table 2 below shows that Malaysia's Gross Domestic Product in 1960 and 1970 was dominated by the service and agricultural sectors. Both these sectors are labour intensive.

Table 2 : Public Development Expenditure between 1956 and 1985

	1956-60	1961-65	1966-70	1971-75	1976-80	1981-85
Public Development Expenditure (billion)	0.74	3.11	4.24	9.79	27.49	78.62

Source : *Money and Banking in Malaysia 1959 - 1989:BNM*

In the first half of the 1960's public development expenditure was only 3.11 billion as compared to 78.62 billion in the first half of the 1980's. As such, there were relatively lower incentives for the Government to upgrade or develop such infrastructure as roads, manufacturing facilities etc, which were costly. The non-availability of mega projects, then, could be a major setback for the active issuance of bonds to raise funds.

Finally, until the 1980's Malaysia was essentially agriculture-based country. Less emphasis was given to the industrial sector. The leaders as well as the people strongly believed in the agricultural sector. Neither were mature enough to have the vision to transform the country into an industrial nation. Lack of vision and knowledge had blocked their minds from looking into the broad sector i.e. the industrial sector which had brought major reforms especially in the capital market, in most developed nations such as U.S.A., Japan, Germany, Britain etc. Had these people had the vision and maturity to benchmark against what was happening in developed nations, the capital market by then could have taken off steadily.

However, economic conditions and the people cannot be blamed totally for inactivity. The political scenario then did not lend itself to the development of an active bond market. Even though the Bond Market was insignificant in the 1960's and 1970's, the Government took several measures to make Government securities more attractive.

In 1960, to boost the bond market, the Government introduced the practice of accepting advance subscription for future issues. However, the indirect motive was to analyse the demand for Government Securities rather than to boost the market.

Before the 1960's, there was no issuance of shorter tenure securities. Only in 1962, did the Government for the first time introduce shorter-term bonds i.e. with a maturity of 2-5 years. That was to attract investors who prefer a shorter rather than a longer period. Before that Government securities were dominated by longer-term bonds of between 16-20 years.

In one of their brave moves, the government exempted all transactions in Government securities from stamp duty. The act, lowered the costs (transaction costs) involved in purchasing the bond and helped to activate the sale of Government securities.

To encourage more resident companies to participate in Government bonds, interest payments were exempted from income tax. Companies and other residents had an alternative to invest in Government securities which offer tax-free interest rather than other modes of investment i.e. fixed deposits on which interest is taxable.

To induce the active participation of brokers, higher commission rates were offered (paid). The move somehow had a significant impact on the sale of Government securities as the brokers could reap higher incomes.

In boosting the active participation of financial institutions, in holding Government securities, no limits were placed on the amount of Government securities that were eligible for inclusion as secondary liquid assets in meeting their liquidity requirements. As for the insurance companies, by virtue of the Insurance Act 1963, Government securities were made eligible as "authorised" assets to hold in meeting their minimum Malaysian assets requirements.

As stated earlier, the period from 1960 to 1979 was when the corporate bond was missing from the Bond market. The market had no knowledge of the corporate bonds which were fully developed in developed nations such as US and Japan.

2.1.2 THE PERIOD FROM 1980 TO 1998

The last two decades (1980-1998) saw a steady increase in the issuance of MGS. In fact, those are the years during which the Malaysian Bond Market gained momentum. The amount of Government securities issued increased from RM24.0 million in 1981 to run to RM62.1 million in 1990. The figure increased to RM161.1 billion in 1998. This shows that there has been tremendous improvement in raising funds through the issuance of Government securities.

The steady increase in Government securities was due to the rise in the Government's annual fiscal deficit associated with rising Government expenditure programmes. Over the entire period, slightly more than one half of the overall budget deficit of the Federal Government was met through the net issue of Government securities.

Promoting an active secondary market in MGS formed an important part of the Government's overall objective of developing the capital market. Some major reforms were carried out in the market for MGS in the late 80's. The demand for MGS was made less captive through a liberalisation of the liquid asset requirements of financial institutions and BNM stopped its long standing practice of fixing the yield curve on an administered basis and allowed it to be determined by market forces. Thirdly, principal dealers were appointed to underwrite primary issue of MGS and quote two-way prices in the secondary market and scripless book-entry

securities trading and a fund transfer system known as SPEEDS was established. Together with the increase in issuance of MGS, the period from 1980 to 1999 saw the birth and tremendous growth in corporate bonds in Malaysia.

2.2 PRIVATE DEBT SECURITIES (“PDS”)

A sizeable market in PDS has emerged in Malaysia from the late eighties. From an almost non-existent level, net funds mobilised in the second half of the eighties from new issuers of PDS accounted for 13.8% of the total funds raised by the capital market. This market is growing rapidly. The PDS share of the total jumped to 38.9% by the first half of the 90's.

PDS are debt instruments issued by corporations. They are essentially IOU's with which the corporate issuers agree to repay the principal and/or interest over a specified period as well as to meet other provisions of the debt obligations. The holders of debt securities are creditors, not shareholders, and have no right in the company that issued the securities other than receiving the interest due on their loan as well as the principal of the loan upon maturity. Failure to do so constitutes legal default and court proceedings can be instituted to enforce the contract.

In Malaysia the PDS consist of two main bonds i.e. conventional PDS and Islamic Debt securities. The Corporate Bond market has progressed significantly since the mid 1980's; prior to this, the market was practically non-existent. The introduction of the Cagamas Bond was the impetus for the significant growth in the bond. Even though MGS dominated the market, the growth in Corporate Bonds has outpaced the growth of MGS. Prior to the mid-1980's, the growth of PDS was blocked firstly, by the well-established banking system. Since mid 1965,

Malaysia has developed a well-regulated banking system which has captured the corporations' attention as the main source of borrowing. Secondly, the corporate bodies and investors themselves prefer equity financing. These factors were mainly due to the absence of expertise in raising funds through bond issuance. Lack of exposure to how corporations in developed nations finance their expansion, was another factor.

The third and most important factor was the absence of an institutional framework for issuing and investing in bonds. We can see that effect in 1986 with the setting up of a National Mortgage Corporation (Cagamas Berhad). Without such a framework, big and established corporations have no directions or regulations in issuing corporate bonds.

The final factor was the highly regulated financial system. Before 1980, the Malaysian financial system was highly regulated by the government through Bank Negara. This was to ensure the public interest was well protected and to mitigate the financial risk by the enforcement of strict rules and regulations.

Nevertheless, PDS have achieved rapid growth since the mid-1980's. There are three fundamental factors that have helped to boost the tremendous growth in PDS. First, private sector-led growth, which has resulted in increased private sector financing needs, for example, in meeting the funding requirements of large-scale privatised infrastructure projects. Second, financial liberalisation, initially pursued to expedite the recovery from the 1985 recession, and more recently to develop Kuala Lumpur into a regional financial centre. Finally, rapid economic

growth and monetisation which created the environment for financial innovations that led to the introduction of a wider range of savings and financial instruments.

2.2.1 ISLAMIC PUBLIC DEBT SECURITIES

Islamic Private Debt Securities (“IDS”) were first introduced in Malaysia in 1990 with the issue of RM125 million deferred payment sale facility under the concept of AL-Bai Bithaman Ajil (deferred payment sale) and RM560 million based on the concept of AL-Musharakah (Joint participation/profit & loss sharing) by Shell MDS (Malaysia) Sdn. Bhd. The first Islamic mortgage-backed securities, the Cagamas Mudarabah bonds were issued in 1994. Many of the Islamic bonds recently issued in the market have been for Government related entities such as the RM2.2 billion 20 years Islamic Notes Issuance Facility based on AL-Bai Bithaman Ajil which was issued to finance the construction of the new Kuala Lumpur International Airport. For an Islamic instrument to be issued in the capital market, it will have to go through a process of evaluation and each submission must be accompanied by the Syariah Advisory Council’s endorsement before it can be approved.

As at end December 1997, a total of 18 issues of IDS with a total value of RM5.39 billion have been issued. Of this total, 11 are short-term issues amounting to RM3.23 billion and seven long-term issues valued at RM2.16 billion. This represented 11% of the total PDS issued and rated by RAM. The average issue size for long-term Islamic bonds was RM273 million while the short-term facilities averaged RM293 million. In value terms, the majority of the issuers originated from the mining and petroleum, infrastructure, utilities, hire purchase, leasing and factoring sectors.

2.3 MARKET SIZE AND GROWTH

Table 3 : Market size and growth for MGS, PDS & Bank Loan

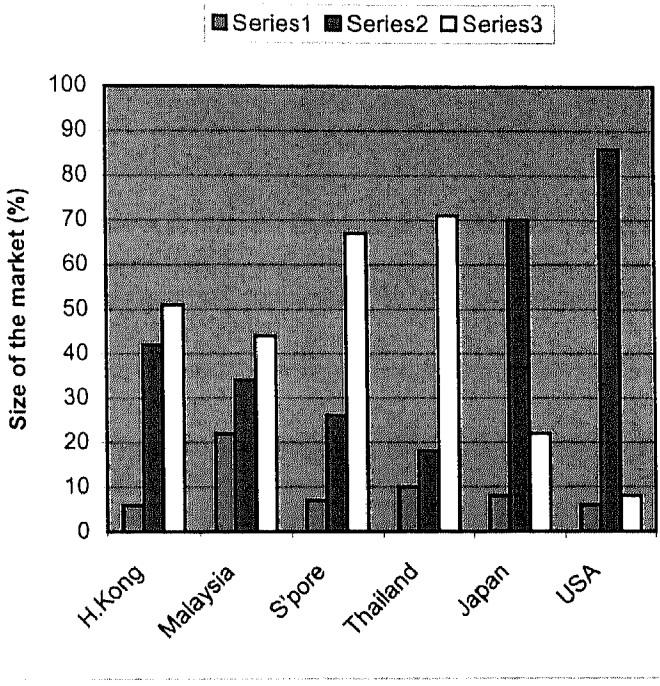
	1991	1992	1993	1994	1995	1996	1997	1998	CAGR% 91-98
Equity (market capitalization)	161	246	620	509	566	806.8	375.8	374.5	12.8
MGS	67.5	69	69.3	70.9	70.9	72.2	69.9	81.9	2.8
PDS	8.1	11.5	15	24	31.6	45.2	63.3	75.4	37.5
Bank Loan	74.9	81.8	90.1	100.9	132.2	184.9	238.1	229.6	17.4

Source : Bond News Letter –Rating Agency of Malaysia.

Table 3 shows the overall market size and growth for MGS and PDS. During this period the Cumulative Average Growth Rate (CAGR) from 1991 to 1998 for PDS was 37.5% compared to MGS which was only 2.8%. PDS outpaced the growth of MGS. This clearly indicates that PDS are gaining popularity among Malaysians and issuers and investors.

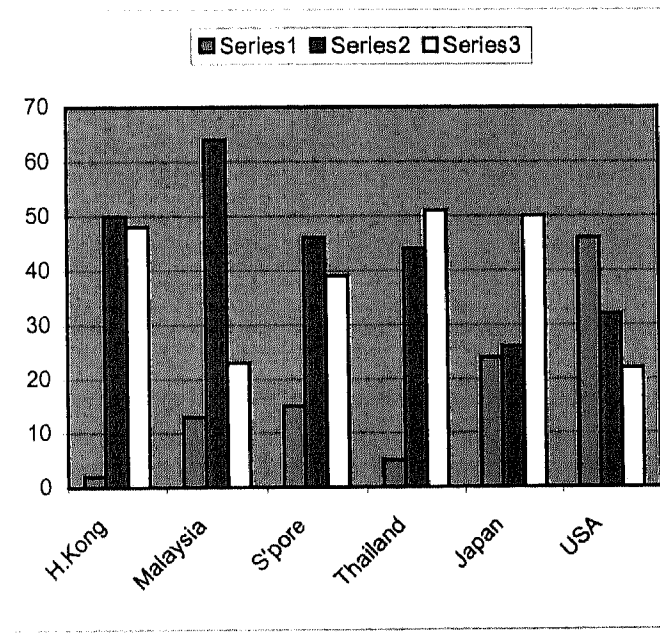
However, the growth is still small compared to other developed markets. Present rules and regulations, approval procedures, market structure and many other issues have curbed significant growth in the bond market. The problems faced by the bond market and their solutions will be discussed in the following chapters. If we compare the growth of the Malaysian Bond market with five selected countries for the period of 1994 and 1998, the latter have significant growth. The graph shows the percentage size of the bond market, equity market and bank lending for six selected countries over two periods i.e. 1994 and 1998. In 1994, the percentage size of the Malaysian Bond market was only 13% while USA was the highest with 46%. In 1998, the size of the Malaysian Bond market increased to 22% (the highest) compared to other countries. As such, within a short period of time, the bond market in Malaysia gained great momentum.

Graph shows size of bond market, equity market and bank financing in 1994 and 1998



	% Bond	% Equity	% Bank
H.Kong	6	42	51
Malaysia	22	34	44
S'pore	7	26	67
Thailand	10	18	71
Japan	8	70	22
USA	6	86	8

Percentage size of bond market, equity market and Bank lending in 1998.



	% Bond	% Equity	% Bank
H.Kong	2	50	48
Malaysia	13	64	23
S'pore	15	46	39
Thailand	5	44	51
Japan	24	26	50
USA	46	32	22

Percentage size of bond market, equity market and bank lending in 1994

Source: HSBC Treasury & Capital market, Goldman Sachs, Bank of International Settlement, Salomon Smith Barney, PwC analysis (April 1999).

CHAPTER 3

PROBLEMS AND PROSPECTS

3.1 INTRODUCTION

Those countries that have developed active capital markets have been able to leap ahead in development, particularly at a time when technological advances have to be funded by enormous research and development, apart from marketing and manufacturing costs. As the cost of going into new manufacturing technology is becoming too great, the availability of capital in sufficient quantities to allow the investment to take place is vital. This has led to companies to grow bigger and bigger in order to build the resilience in the event that any of their investments fail. This question of size has had a major impact on the development of the capital market.

Thus, in U.S.A, parts of Europe (especially Germany and in U.K.) and increasingly in Japan the major corporations do not go to their banks for funds at all but rely upon their own name to back bonds which they issue and which are packaged for them by the financial institutions. This gives the corporations the flexibility to issue bonds into denominations and in tenures that suit them so that they can match their funding requirements to their project needs. A good corporate investor today, will have his balance sheet made up on the debt side with a variety of short, medium and long term instruments and very little of his liability will be conventional bank debt. According to Nik Ramlah Nik Mahmod, an emerging trend in Asia is that more investors have begun to look at fixed income papers. A reason for the shift to debt could be volatile equities markets which are now perceived to be more risky. Additionally, investors who had bought debt denominated in Asian currencies such as the Yen and Korean won reaped handsome rewards as these currencies have appreciated substantially in the last nine months.

According to the Rating Agency of Malaysia's (RAM) economic projections, the size of the private debt securities ("PDS") market is expected to contract in the medium term but thereafter to grow at a pace of 19 percent per annum. By the year 2005, the PDS market could be conservatively valued at RM90 billion.

In Malaysia between 1983 to 1998, only a few companies issued convertible bonds. For a variety of reasons, mostly historical, there is no culture of issuing paper in Malaysia and as a result the opportunity to develop this very substantial market has not yet been taken. While the situation has improved as reflected in the sharp rise in new PDS issues, a number of factors continue to limit and constrain the development of its full potential.

3.1.1 MEETING REQUIREMENTS

Yan L.S. stressed that the failure of the secondary bond market to take off comes down to two major issues, demand and supply. Quality papers are snapped up and locked in at the primary market level by a group of investors such as the EPF and financial institutions who keep the papers in their portfolio to meet requirements, thereby crowding-out other smaller investors. BNM regulations require the EPF to invest at least 50% and insurance companies at least 25% in MGS. As at end 1998 these organizations held about 70% of outstanding MGS which further deterred the development of the secondary market. With the development of the secondary market, the investors have the opportunity to back their short-term judgement and do not have to make a long-term assessment of the quality of the bonds. They therefore have the opportunity to trade and arbitrage in the market which gives them profit opportunity (and also loss opportunity)