



CapitalMARKET

MASTERPLAN

M A L A Y S I A



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The State of Play

The Malaysian capital market has witnessed significant change and development over the last few decades. The current capital market landscape can be described in terms of a number of dimensions:

- The capital market consists of markets in several **asset classes**, primarily the equity market, the private and public debt securities market and the market for financial derivatives. There are also markets in Islamic-based instruments as well as in hybrids of the “plain-vanilla” instruments described above
- **Market processes and activities** include securities broking and trading, investment management, financial risk management as well as corporate finance, and the provision of mergers and acquisition advice and underwriting
- **Participants** in the Malaysian capital market include: foreign and local investors, both at the retail and institutional level; foreign and local issuers; market intermediaries such as stock and futures brokers, merchant banks, fund managers, unit trust companies; and market institutions in the form of exchanges, clearing and depository institutions, and issuing houses
- While the Securities Commission (SC) is the lead capital market regulator, reporting to the Minister of Finance, the **regulatory structure** also includes the involvement of Bank Negara Malaysia (BNM), the Foreign Investment Committee (FIC) and the Attorney General. Various regulatory functions are also performed by the market institutions

This appendix provides a detailed description of the Malaysian capital market in terms of its various components, with a view to providing the reader with background information to the Capital Market Masterplan. In the course of formulating the Masterplan, the SC has conducted extensive research and analysis not only in relation to the domestic capital market but also on the situation in other

jurisdictions as well as on global trends. A substantial amount of data and information has thus been collected through a wide variety of primary and secondary sources. For the purpose of this appendix, a selection of the most relevant data and information is used.

It is hoped that the appendix will be of value not only in providing background information for a reading of the Masterplan, but also in providing investors and other consumers of capital market services, as well as researchers, with a source of reference on the Malaysian capital market and its relation to the international landscape.

The appendix provides a breakdown of the development of the major components of the capital market over time and their current state of play in relation to the international landscape. Each section begins with a backgrounder, then goes on to describe the domestic situation of each component before focusing on the external environment. The data and information in the appendix was compiled in the first half of 2000 and has been updated, where relevant and possible. The purpose is not necessarily to provide the most recent information, but more importantly, to provide an appropriate analysis of trends and patterns over time and where relevant, across countries. In some cases reference is made to specific time-periods in order to focus a particular topic or issue. The appendix focuses on:

- Market institutions
- The equity market
- The bond market
- The derivatives market
- The Islamic capital market
- The stockbroking industry
- Investment management
- The regulatory framework
- Technology and e-commerce

and covers the range of asset classes, market processes and activities, and participants mentioned above.

MARKET INSTITUTIONS

For the purpose of the Masterplan, the term “market institution” refers to an institution serving the capital market in the capacity of a central intermediary. They include, among others, the individual exchanges, clearing houses and central depositories.

Background

The first formal market institution in Malaysia—the Malayan Stock Exchange—arose from talks between the central bank and the Malayan Stockbrokers Association, with a view to creating a wider and more efficient stock market. On 9 May 1960, four stockbrokers gathered in the clearing house of the central bank in Kuala Lumpur to conduct the first session “call” and price marking.

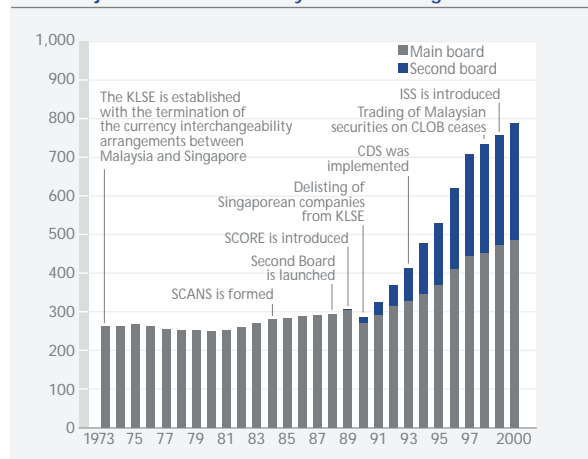
In the following year, upon the listing of three companies, two trading rooms were established: one in Kuala Lumpur and another in Singapore. On 15 June 1962, stockbrokers in Kuala Lumpur moved out of the central bank and into their own premises, thus resolving the problem of restricted trading hours arising from the use of the central bank’s clearing house. More significantly, the new trading room saw both Kuala Lumpur and Singapore linked by direct telephone lines. This enabled investors to know the best and latest prices available in the fragmented market, and improved price formation between the two trading locations.

Following the formation of the Federation of Malaysia, the exchange was renamed the Stock Exchange of Malaysia on 6 June 1964. The independence of Singapore then led to a further name change: the Stock Exchange of Malaysia and Singapore. In 1973, Malaysia terminated specific currency arrangements between Malaysia and Singapore, which led to the setting up of separate exchanges for Malaysia and Singapore. As a result, The Kuala Lumpur Stock Exchange (KLSE) was established and was formally incorporated as a company limited by guarantee three years later.¹

During the 1980s and 1990s, the exchange undertook several enhancements to its microstructure. These included the formation of the exchange’s own clearing house, called the Securities Clearing Automated Network Services Sdn Bhd (SCANS), in 1984. The computerisation of the clearing system took away the manual clearing and settlement functions from the brokers, thereby facilitating more efficient trading activities; more significantly, it formalised settlement dates. Measures were also taken by the KLSE to expand the SCANS membership base. On 15 July 1999, the KLSE introduced the Institutional Settlement Service (ISS), which opened membership of SCANS to eligible non-stockbroking firms, such as locally-incorporated custodian banks and financial institutions.²

In November 1988, the KLSE launched the Second Board for the listing of smaller companies with good growth prospects to gain access into the stock market. Although critical mass took a few years to build up, listings rapidly increased in the early 1990s; as of end-September 2000, the board contained 287 companies (Figure 1).

Figure 1
Number of companies listed on the KLSE since its inception and some major events in the history of the exchange



Sources: Kuala Lumpur Stock Exchange; Securities Commission
Note: 2000 data is as at end-September

In 1990, steps were taken to bring the stock market’s depository system more in line with international best practices. This involved the setting up of the Malaysian Central Depository Sdn Bhd (MCD) to implement and operate the Central Depository

¹ Nevertheless, it operated with provisional rules, listing requirements and disclosure policies from 1973 onwards. In 1994, the prefix “The” was removed and it was renamed simply as Kuala Lumpur Stock Exchange.

² Resident custodian banks offering services to local/foreign institutions, and locally-incorporated institutions that wish to settle their trades directly may apply for ISS membership at SCANS.

System (CDS), in accordance with Group of Thirty (G-30) recommendations. CDS was implemented in 1993, with the aim of converting the then scrip-based system into a book-entry system. Complete immobilisation of securities traded in KLSE is expected to be achieved in 2001.

On 1 January 1990, all Malaysian-incorporated companies on the Singapore stock exchange and all Singaporean-incorporated companies on the KLSE were de-listed and re-listed on their respective national exchanges. Soon after the exercise, an over-the-counter (OTC) market for Malaysian-listed stocks, the Central Limit Order Book (CLOB), was established in Singapore. Eight years later, amid the financial crisis that beset the region, measures were taken to prohibit the trading of Malaysian securities on non-approved markets. On 15 September 1998, the market in Malaysian shares on CLOB was closed.

By 1996, the number of exchanges in Malaysia had grown to four. The Kuala Lumpur Commodity Exchange Bhd (KLCE), the country's first derivative exchange, and its wholly-owned clearing institution, the Malaysian Futures Clearing Corporation (MFCC), had been established in 1980. In 1995, the Kuala Lumpur Options and Financial Futures Exchange Bhd (KLOFFE) began operating as Malaysia's first financial derivatives market, and was soon followed in April 1996 by the start of trading on Malaysian Monetary Exchange (MME). The MME merged with KLCE to form the Commodity and Monetary Exchange of Malaysia (COMMEX) in December 1998. At the outset, the financial derivative exchanges used a common clearing mechanism in the form of the Malaysian Derivatives Clearing House Bhd (MDCH), which was established in 1995. The merger of MDCH and MFCC on 7 December 1997 saw the formation of a single clearing house for all exchange-traded derivative transactions in Malaysia.

Malaysia's second stock exchange was approved under Section 8(2) of the Securities Industry Act 1983 (SIA) in October 1997 to provide a liquid market for the shares of high-growth and technology companies. Known as the Malaysian Exchange of Securities Dealing and Automated Quotation Berhad

(MESDAQ), the fully member-owned exchange was designed to cater for technology-based companies and companies with strong growth potential but which do not have a profit track record. Trading on MESDAQ commenced in April 1999 with the listing of its first counter, Supercomal Technologies Bhd.

A summary of key details and microstructure of each exchange are provided further below, while the Derivatives Market section of this appendix focuses on derivative market institutions in greater detail.

Domestic Overview

Currently, market institutions in the Malaysian capital market consist of:

- KLSE
- MESDAQ
- KLOFFE
- COMMEX
- SCANS
- MDCH
- MCD

Table 1 provides an overview of their key characteristics and microstructure.

Market capitalisation

Figure 2 shows that KLSE market capitalisation increased from RM132 billion in 1990 to a peak of RM807 billion in 1996. However, with the advent of the East Asian crisis in 1997, market capitalisation plummeted by 54% over the course of the next year. Nevertheless, market capitalisation rebounded in 1999 to approximately its level four years previously. Even so, the Malaysian stock market has shrunk relative to other markets, and was ranked the 23rd largest market in the world in 1999 compared to 11th largest in 1996 (Table 2). Nevertheless, relative to the size of the domestic economy, the stock market remains sizeable (Figure 3), especially when compared to other selected markets around the world (Figure 4).

Table 1

Summary of key characteristics of Malaysian exchanges and clearing houses

Exchanges	KLSE	MESDAQ	KLOFFE	COMMEX
Products	Equities, warrants, bonds and loan stocks	Equities: High-growth and technology companies	KLCE futures	Crude Palm Oil (CPO) futures 3-month Kuala Lumpur Interbank Offered Rate (KLIBOR) futures
Date established	1973	Approved on 6 October 1997 Commenced trading on 30 April 1999	Commenced trading 15 December 1995	KLCE and MME merged on 7 December 1998 to form COMMEX
Trading System	System of Computerised Order Routing and Execution (SCORE)	MESDAQ Order Routing and Execution (MORE!)	KLOFFE Automated Trading System (KATS)	Floor open outcry trading
Clearing house	SCANS		MDCH	
Central depository	MCD		N/A	
Number of members companies as at end-September 2000	62	16	25	22

Source: Securities Commission

Table 2

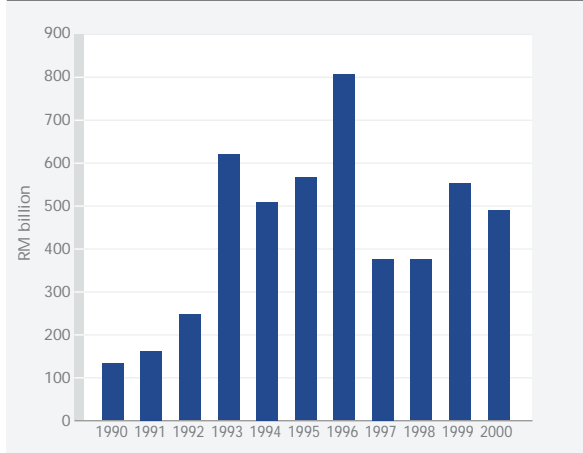
Market capitalisation of major bourses within respective countries

Rank	Country	End-1999 (US\$ billion)	Country	End-1996 (US\$ billion)
1	United States	16,642	United States	10,215
2	Japan	4,555	Japan	3,106
3	Great Britain	2,855	Great Britain	1,643
4	France	1,503	Canada	890
5	Germany	1,432	Germany	665
6	Canada	801	France	587
7	Italy	728	Hong Kong	449
8	Netherlands	695	Switzerland	400
9	Switzerland	693	Netherlands	375
10	Hong Kong	609	Australia	312
11	Spain	432	Malaysia	306
12	Australia	428	Taiwan	274
13	Taiwan	377	Italy	257
14	Sweden	373	Spain	241
15	Finland	349	Sweden	240
16	Korea	306	South Africa	240
17	Brazil	228	Brazil	217
18	Singapore	198	Singapore	153
19	Greece	197	Korea	139
20	South Africa	193	Belgium	119
21	Belgium	184	Mexico	107
22	Mexico	154	Thailand	96
23	Malaysia	140	Indonesia	91
24	Turkey	113	Philippines	80
25	Denmark	105	Denmark	71
26	Ireland	69	Chile	66
27	Chile	68	Finland	63
28	Portugal	68	Norway	57
29	Indonesia	64	Argentina	45
30	Norway	64	New Zealand	37
31	Israel	63	Ireland	35
32	Thailand	57	Israel	34
33	Argentina	56	Austria	34
34	Philippines	42	Luxembourg	32
35	Luxembourg	36	Turkey	30
36	Austria	33	Portugal	24
37	Poland	30	Greece	24
38	New Zealand	28	Iran	13
39	Iran	17	Peru	13
40	Peru	12	Poland	8

Sources: Federation Internationale des Bourses de Valeurs; Securities Commission

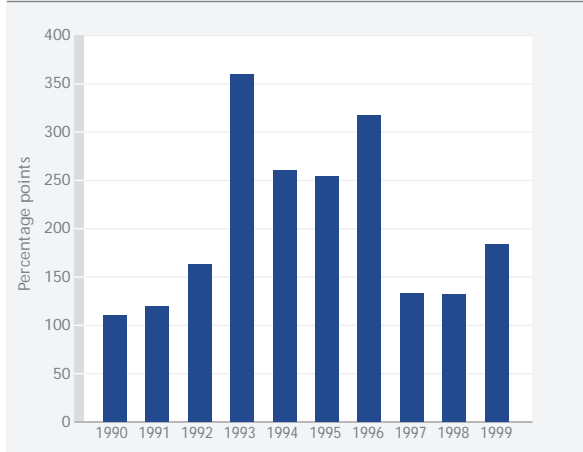
Notes: This is based on the information on exchanges in 40 countries as compiled by Federation Internationale des Bourses de Valeurs. In 1999, the figure for Germany is based on the market capitalisation figure for Deutsche Börse

Figure 2
Market capitalisation of KLSE



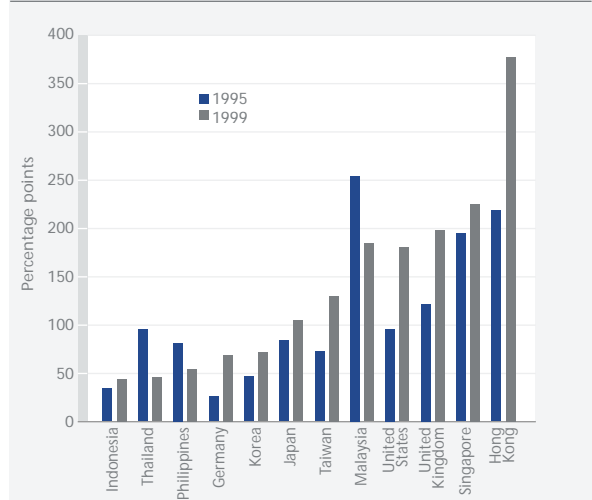
Source: Kuala Lumpur Stock Exchange
Note: 2000 data is as at end-September

Figure 3
KLSE market capitalisation as a percentage of nominal Malaysia gross domestic product (GDP)



Sources: Bank Negara Malaysia; Securities Commission
Note: 1999 figure is based on preliminary nominal GDP data

Figure 4
Market capitalisation as a percentage of nominal gross domestic product (GDP) of selected major bourses within respective countries



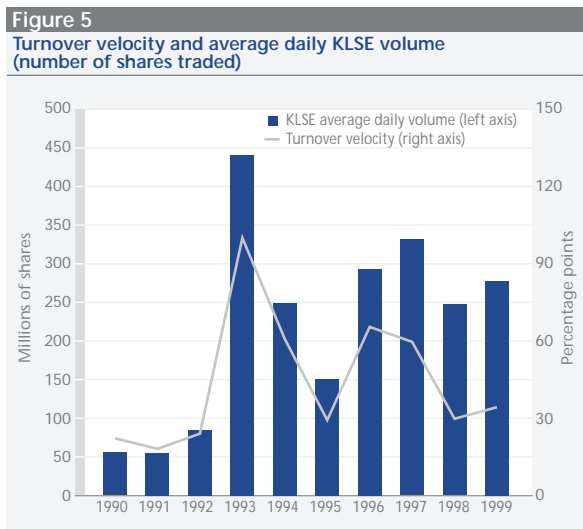
Sources: Federation Internationale des Bourses de Valeurs; Wharton Econometric Forecasting Associates Group; Bank Negara Malaysia; Securities Commission
Note: Malaysia's market capitalisation as a percentage of nominal GDP in 1999 is based on preliminary nominal GDP data

Market activity

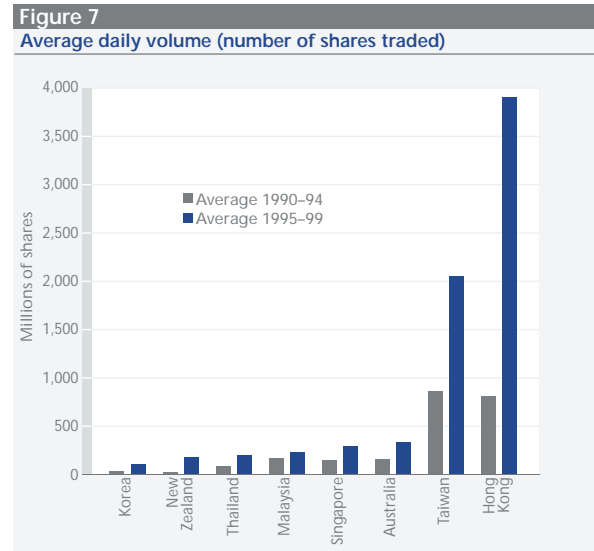
Figure 5 and Figure 6 show market volume (ie, the number of shares traded) on KLSE and MESDAQ over time and clearly indicate the marked effect that periods of financial crisis have had on market activity. (A more detailed analysis of liquidity levels on KLOFFE and COMMEEX may be found in the Derivatives Market section of this appendix.) Figure 5 also shows one measure of market liquidity (in this

case, the turnover velocity) on the KLSE and shows how volatile liquidity of the KLSE has been since the early 1990s—especially in times of increased financial stress—and the close (positive) relationship between market liquidity and trading activity.³

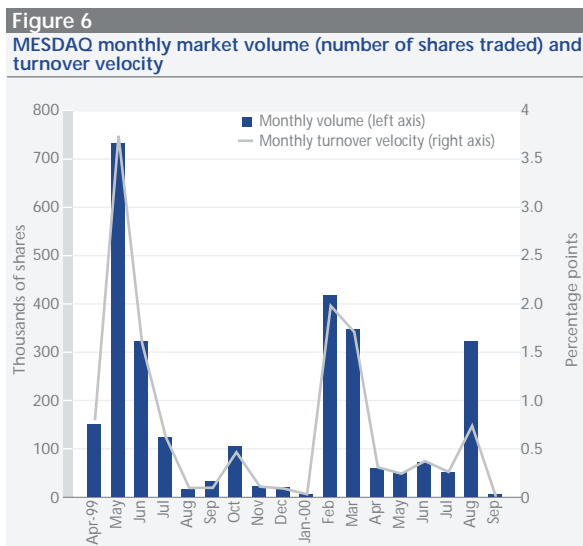
Figure 7 and Figure 8 provide a comparison of measures of market activity and liquidity across selected markets.



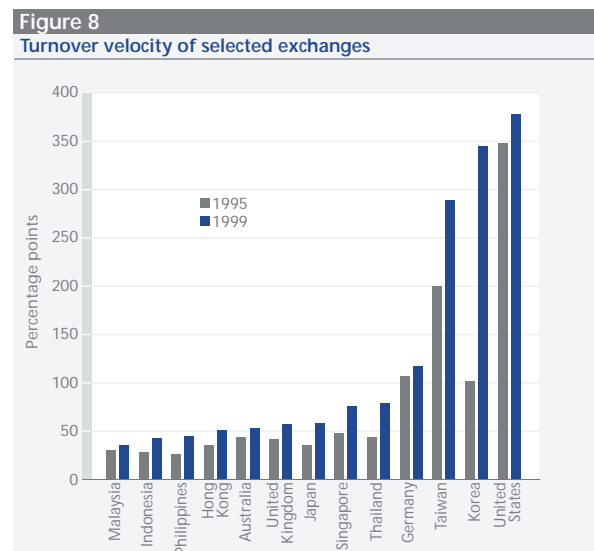
Sources: Kuala Lumpur Stock Exchange; Federation Internationale des Bourses de Valeurs; Securities Commission
Note: Turnover velocity is the annualised average of the total monthly turnover (value) divided by month-end market capitalisation



Sources: Federation Internationale des Bourses de Valeurs; Securities Commission
Note: The average daily volume (number of shares) for each year was obtained by dividing total annual volume (number of shares) by 250, the assumed number of trading days in a year



Sources: Malaysia Exchange of Securities Dealing and Automatic Quotations; Securities Commission
Note: Turnover velocity is calculated by dividing total monthly turnover (value) by month-end market capitalisation



Source: Federation Internationale des Bourses de Valeurs
Note: Turnover velocity is the annualised average of the total monthly turnover (value) divided by month-end market capitalisation

³ Turnover velocity refers to the ratio of total turnover value to market capitalisation. For a precise definition, see notes in Figure 5, Figure 6 and Figure 8.

International Landscape

The environment in which capital market activity takes place has become increasingly dynamic, competitive and globalised, driven by a combination of factors, including: advances in financial techniques and computing technology; the deregulation of financial activity in many jurisdictions; and the changing patterns of fund-raising and investment. Technology has provided the information and communications infrastructure to facilitate cross-border and cross-asset financial transactions. Investors and issuers are seeking international pools of liquidity and capital. Direct and portfolio investments from the United States (US) in particular have seen rapid growth since the 1980s, while Asian economies, including Japan, have witnessed a tremendous increase in net capital flows in the 1990s (Figure 9).

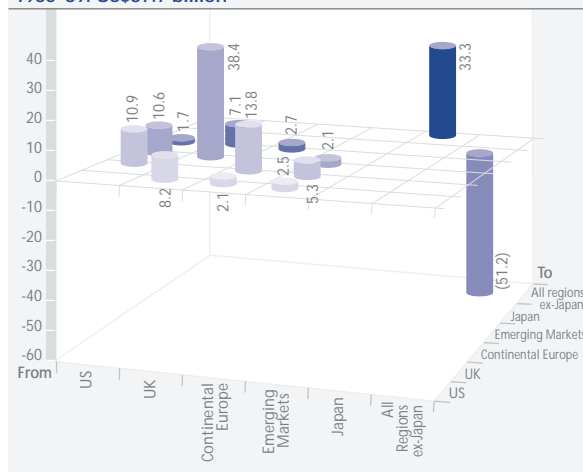
The upshot of these developments is that exchanges and clearing houses in particular, are being forced to become more commercially-focused amid the growing pressures affecting their core businesses. These pressures include:

- the increased mobility of portfolio capital, which has made it much more difficult for individual exchanges to attract and maintain order-flow
- greater competition for order-flows among existing exchanges and against new entrants in the form of alternative trading systems (ATs), such as electronic communication networks (ECNs)
- more demanding requirements of investors, such as the availability of a more investable (ie, highly-liquid) universe of securities, and greater cost-effectiveness and efficiency of cross-border and cross-asset clearance and settlement

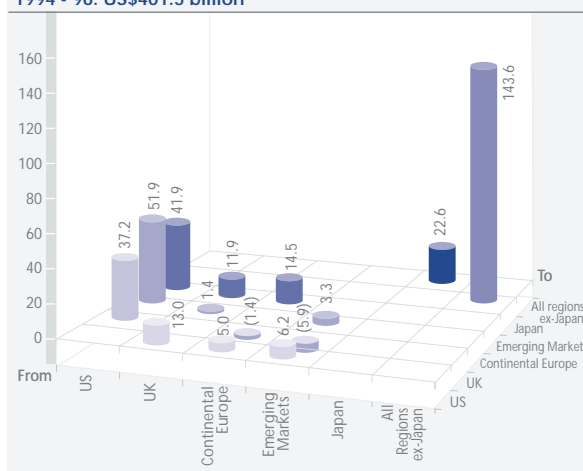
As a result of these pressures, a number of trends have developed involving market institutions the world over. The next section examines some of these

trends further, namely: the lowering of operating and transaction costs; minimisation of transaction risks and introduction of value-added services; adoption of governance structures that facilitate a more commercially-oriented business approach; and the undertaking of strategic alliances in order to pool trading activity and build liquidity.

Figure 9
Net cross-border equity flows (US\$ billion)
1986–89: US\$87.7 billion



1994 - 96: US\$401.5 billion



Sources: Barings Securities; Cross Border Capital; Boston Consulting Group
Notes: a) Equity flows comprise direct investment and equity securities.
Net cross-border equity flows: Difference between the purchases and the sales of foreign equity.
Figures for Japan are only available in aggregate
b) Other markets: Asia/Pacific (Hong Kong, India, Indonesia, Malaysia, Pakistan, The Philippines, Singapore, Korea, Sri Lanka, Taiwan and Thailand), Latin America (Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela), and others (Greece, Portugal, Turkey, the Czech Republic, Hungary, Poland, Russia, South Africa, Other Africa and Middle East)
c) Figures in brackets denote negative values

Consolidation of national market institutions

The international trend towards the consolidation of exchanges and clearing houses has been gaining momentum in recent years (Table 3). In their search for greater efficiency and competitiveness, exchanges have undertaken various forms of consolidation, from consolidation between clearing houses and exchanges to mergers among and across derivative and stock exchanges.

Cross-border mergers and alliances

In addition to consolidation among domestic market institutions, there has been a marked increase in efforts to establish mergers and strategic alliances among market institutions of different national jurisdictions. This has been driven by the growth of cross-border and cross-asset investment activity and greater competition to attract order-flows. In essence, moves at forming mergers and alliances aim at creating larger networks of markets at an

international level through which a critical mass of trading activity and liquidity can be generated.

However, while there has been a rise in attempts at forming such inter-jurisdictional alliances, many remain at the discussion stage in light of significant obstacles to such alliances. These include dealing with technical issues, such as the form of alliance to be taken, differences in regulations, market conventions, member/shareholder votes and cultural preferences, among others.

Even when obstacles have been overcome and alliances subsequently cemented, as with other corporate ventures, the success of these efforts cannot be guaranteed. The experience of the US National Association of Securities Dealers Automated Quotation (Nasdaq) in Tokyo and Hong Kong is instructive in this regard. Early trading in Tokyo and Hong Kong of shares listed on Nasdaq have been characterised by low volumes.

Table 3
Consolidation and integration of market institutions in Malaysia and selected international markets

Exchange / clearing house	Date	Form
London International Financial Futures and Options Exchange (LIFFE) and London Clearing House	Joint venture announced on 29 March 1999 to identify new trading and clearing services to customers.	Vertical integration of trading and settlement functions.
Brussels Stock Exchange, Belgian Futures and Options Exchange (BELFOX) and National Depository	Merged in March 1999 to form Brussels Exchange.	Consolidation of stock and derivative exchanges. Vertical integration of functional lines.
National Association of Securities Dealers Automated Quotation (Nasdaq), American and Philadelphia Stock Exchanges	Nasdaq-AMEX-Philadelphia merger in June 1998.	Consolidation of stock and derivative exchanges.
Stockholm Stock Exchange and Swedish Derivatives Exchange	Merged in early 1998 to form OM Stockholm Exchange.	
Lisbon Stock Exchange and Oporto Derivatives Exchange	Portuguese government approved merger on 25 November 1999.	
Stock Exchange of Hong Kong (SEHK) and Hong Kong Futures Exchange (HKFE)	Merged in December 1999.	
Stock Exchange of Singapore (SES) and Singapore International Monetary Exchange (SIMEX)	Merged on 1 December 1999 to form Singapore Exchange (SGX).	
KLSE and KLOFFE	KLSE acquired KLOFFE on 4 January 1999.	
KLSE and COMMEX	Memorandum of Understanding (MOU) was signed on 24 March 2000. The MOU would allow COMMEX to join the KLSE Group.	
KLCE and MME	Merged to form COMMEX in December 1998.	Consolidation of financial and commodity derivative exchanges.

Sources: Arthur Andersen; OM Group

Notwithstanding this, alliances and mergers among exchanges, if successful, have the potential to create large pools of liquidity, enhance pricing efficiency and hence attract large internationally-active issues

and institutional investors. Table 4 outlines some of the cross-border mergers and alliances in international markets that have been announced as at end-September 2000.

Table 4
Cross-border mergers and alliances in international markets

Exchange	Mergers and alliances	Form
Brussels, Paris, Frankfurt, Amsterdam and Milan Stock Exchanges	Formed EuroNM, a pan-European growth market on 29 January 1999. In light of structural changes in the equity capital markets, EuroNM has decided to terminate operations as at end-2000.	Alliances among exchanges.
New York, Amsterdam, Paris, Brussels, Tokyo, Hong Kong, Australia, Mexico and Brazil	Alliance to form Global Equity Market - a market structure based on the principles of transparency with an electronic order matching system was developed in May 2000.	
Brussels, Luxembourg and Amsterdam Exchanges – Benelux alliance	Benelux alliance was launched on 4 January 1999.	
ParisBourse SBF SA and Lisbon Stock Exchange	Agreement in July 1999 to provide for cross-membership and linking of trading systems to give members direct access to each other's market.	
LIFFE and Chicago Mercantile Exchange (CME)	In August 1999, announcement to create a separate for-profit joint venture and linked trading systems to give members direct access to each other's markets.	
Eurex and Chicago Board of Trade (CBOT)	Eurex-CBOT's joint electronic trading platform was launched on 27 August 2000.	
ParisBourse SBF SA, CME, SIMEX, Montreal Exchange and Bolsa de Mercadorias & Futuros (BM&F)	Alliance to form Globex in February 1999. Globex allows members to continue to use own trading systems.	
Spanish and French Derivative Markets	Agreement to link their systems on 5 July 1999.	
Australian Stock Exchange Ltd (ASX) and Nasdaq	Alliance in June 1999 to provide co-listing services and to further establish links between markets.	
SEHK and Nasdaq	Alliance to work towards a co-listing programme that will enable trade in each others' markets in December 1999. Seven Nasdaq stocks began trading on the SEHK on 31 May 2000.	
Deutsche Börse and Soffex	Eurex was created in December 1996 via the merger of both exchanges. The operational and technical merger of both exchanges was completed on 28 September 1998, when Swiss and German derivatives traded on a single electronic platform. Overtook LIFFE as the largest derivatives exchange in the world in 1999. Subsequent alliances planned and implemented with the CBOT, New York Mercantile Exchange (NYMEX) and Finnish Derivatives Exchange (HEX).	Merging of trading platforms.
Stockholm, Oslo and Copenhagen Stock Exchanges	Linked to form Nordic Exchanges – NOREX, one common trading platform for both markets.	Agreements for co-operation and partnerships.
Nasdaq-AMEX and SEHK	Partnership to provide worldwide investors with free information about their respective markets via a joint Internet website.	
New York Stock Exchange (NYSE) and Tokyo Stock Exchange (TSE)	Established a working committee to explore opportunities that may exist for partnerships.	Alliances among exchanges.
Paris, Brussels and Amsterdam	Exchanges merged on 21 March 2000 to form the Euronext exchange. An initial public offering of the exchange is planned at the beginning of 2001.	
Softbank Corporation and Nasdaq	Alliance to form Nasdaq Japan, a new bourse for US technology stocks and Japanese start-up companies. The agreement was signed on 15 June 1999. Nasdaq Japan trading began on 19 June 2000.	

Sources: Arthur Andersen; Reuters; Eurex

Demutualisation and listing of exchanges

It was reported in early 2000 that in recent years, of the 52 exchange members of the Federation Internationale des Bourses de Valeurs (FIBV) or the International Federation of Stock Exchanges, 15 have demutualised, 14 have member approval to demutualise and 15 are actively contemplating demutualisation.

The first exchange to demutualise was the Stockholm Stock Exchange in 1993. Other exchanges that have demutualised since then have included the London Stock Exchange (LSE), the Stock Exchange of Hong Kong (SEHK) and the Singapore Exchange (SGX), with Nasdaq and the New York Stock Exchange (NYSE) expected to follow suit. Among demutualised exchanges, the Australian Stock Exchange (ASX), SEHK, LSE, SGX and Stockholm Stock Exchange have also listed on their respective exchanges. (Table 5)

Table 5
Demutualisation of selected international exchanges

Exchange	Demutualisation status	Listing
Stockholm	Demutualised in 1993	Listed
Helsinki	Demutualised in 1995	Has not been listed
Copenhagen	Demutualised in 1996	Has not been listed
Amsterdam	Demutualised in 1997	Has not been listed
Borsa Italiana	Demutualised in 1997	Has not been listed
Australia	Demutualised in 1998	Listed
Singapore	Demutualised in 1999	Listed
Hong Kong	Demutualised in 2000	Listed
Toronto	Demutualised in 2000	Has not been listed
Nasdaq	In progress and expected to be fully demutualised in 2000	-
London	Demutualised in 2000	Listed
Tokyo	In progress and expected to be fully demutualised by 2001	-
NYSE	In progress and expected to be fully demutualised in 2001	-

Sources: Kuala Lumpur Stock Exchange; Lehman Brothers, October 1999; TowerGroup, August 1999; Financial Times, November 1999; Morgan Stanley Capital International Handbook of World Stocks 1999; respective exchanges

Clearing and settlement processes

As securities trading has become more globalised, the need to shorten the settlement cycle further and reduce settlement risk has become an issue for international investors. Shortening the settlement period reduces the delay between trade date and settlement date as well as the number of unsettled trades pending at any one time. Consequently, counterparty risk and market exposure are minimised. Current global standards involve achieving finality and certainty to payments, thus achieving the so-called delivery versus payment (DVP) model 1, and facilitating the reduction of the settlement cycle beyond T+3, both of which are recommended by organisations such as the G-30 and the Bank for International Settlements's (BIS) Committee on Payment and Settlement Systems (CPSS).⁴

Market institutions in the more developed jurisdictions are beginning to consider the move towards next-day settlement, ie, T+1. For instance, in the US, clearing corporations are all taking measures to facilitate next-day settlement. The National Securities Clearance Corporation (NSCC) has automated its clearance processes for equities, unit investment trusts, mutual funds, corporate bonds and municipal bonds. Additionally, the Depository Trust Corporation, that supports the clearing functions of the NSCC, now requires the submission of electronic orders to achieve same-day settlement. The move towards T+1 settlement has been encouraged by the proliferation of online brokerage firms and ATs globally, that have both reduced transaction costs and introduced continuous trading.⁵ (See Table 6 for a cross-country comparison on settlement periods.)

KLSE and MESDAQ trades are currently cleared and settled five days after the trade date (known as T+5) on a netted basis through a Fixed Delivery and Settlement System (FDSS) that operates on a T+5 rolling settlement.⁶ The KLSE introduced the T+5 rolling settlement system to replace its T+7 settlement system on 18 August 1997. The move to

⁴ DVP model 1 system is a system that settles transfer instructions for both securities and funds on a trade-by-trade (gross) basis, with final (unconditional) transfer of securities from the seller to the buyer (delivery) occurring at the same time as final transfer of funds from buyer to the seller (payment).

⁵ Source: "Next Day Settlement (T+1) and the Financial Services Community" by PricewaterhouseCoopers, 1999.

⁶ Subsequently, a T+3 delivery and settlement period was introduced in December 2000.

immobilise all KLSE-listed equities was initiated on 1 December 1998 by making it mandatory to deposit all KLSE-listed equities into the CDS. MESDAQ began trading operations in 1999 in a fully scripless environment. On 28 July 2000, the MESDAQ Order Routing and Execution System (MORE!) trading system was launched allowing investors to conveniently trade via the Internet. Currently, the KLSE's System on Computerised Order Routing and Execution (SCORE) trading system and MORE! are fully integrated.

Table 6

Comparison of settlement periods across selected international stock exchanges

Settlement period	US- NYSE	UK	Australia	Hong Kong	Singapore	Malaysia	Philippines	Thailand	Indonesia	Taiwan
	T+3	T-5 ^a	T+3	T+2	T+3	T+5 ^b	T+4	T+3	T+4	T+2

Sources: Federation Internationale des Bourses de Valeurs; respective exchanges

- Notes: a) The Bank of England, LSE and CREST have announced plans to move to T+3 by February 2001
 b) Subsequently, a T+3 delivery and settlement period was introduced in December 2000

EQUITY MARKET

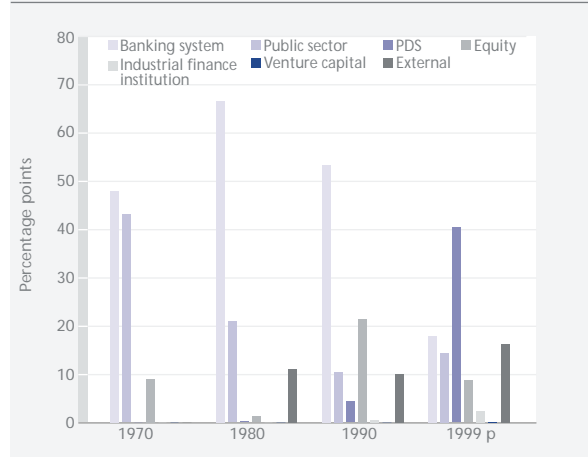
In this section, the coverage of the equity market focuses on the issuance of securities by public listed companies (PLCs) at the KLSE, as well as equity raised for emerging high-growth companies via the venture capital industry, including the issuance of securities on MESDAQ. Secondary market issues are generally covered in the section on Market Institutions, although some are also included in this section, especially when they have a bearing on fund-raising.

Background

Financing patterns of Malaysian corporates have evolved in line with the transformation of the Malaysian economy over the last three decades.

As Figure 10 shows, much of the financing in the 1970s and 1980s was provided by the banking sector and through public borrowing. In the 1990s, the implementation of the government's privatisation masterplan, amongst other factors, provided a significant boost to the equity market and helped to raise its profile as a form of financing for the Malaysian economy. The contribution of the equity market to total financing in the domestic economy increased from 1.2% in 1980 to 21.4% in 1990. More recently and particularly given the government's objective to drive Malaysia toward a K-economy, venture capital financing has gained increasing recognition as an important source of funds for emerging high-growth companies in Malaysia although the amount that has actually been mobilised has been small relative to other funding sources. Figure 15 shows that from 1996–99, cumulative investments and assets of venture capital have grown by approximately 149% and 66% respectively. However, venture capital remains a relatively under-developed financing source for the Malaysian economy, ie, only 0.1% by end-1999, as illustrated by Figure 10.

Figure 10
Sources of financing in Malaysia



Source: Bank Negara Malaysia

Note: The relatively high percentage of financing through private debt securities (PDS) in 1999 was believed to be due to an increase in corporate restructuring efforts

*p-preliminary

In the 1960s, the Stock Exchange of Malaysia embarked on a significant strengthening of its listing procedures and requirements, in tandem with the general overhaul of its rules at that time. To instil confidence in the development of the market, the exchange set up a board in 1963 to consider applications for new listings and to determine listing requirements. A further measure was formally introduced by the Registrar of Companies (ROC), the central bank and the exchange: companies intending to make public offers were required to consult with the central bank prior to the publication of the offer document. These informal arrangements, initially set up in 1963, were formalised in 1968 with the establishment of the Capital Issues Committee (CIC).

The 1970s and 1980s saw further developments including the enhancement of the regulatory framework to protect investor interests and the establishment of the FIC. The 1990s saw the centralisation of fund-raising regulatory functions within the SC. Furthermore, a computerised balloting system was established in 1995 to speed up the process of balloting shares.

In the last few years, forces of change arising from globalisation and technological advances have brought an urgent need to develop alternative mechanisms to fund the high-growth businesses especially via venture capital. The Malaysian venture capital industry was formally established in 1984 with the formation of Malaysian Ventures Sdn Bhd, which started with a fund size of approximately RM13.8 million.⁷ Thereafter, the venture capital industry began to expand in tandem with the growth of emerging high-growth companies. In 1999, there were 30 registered venture capital companies with total assets of approximately RM1.7 billion and cumulative investments of RM1.4 billion.⁸

In recognising the importance of the role of venture capital in financing technological development and economic growth, the government initiated the establishment of the Perbadanan Usahawan Nasional Bhd (PUNB) in 1991 and the Malaysian Technology Development Corporation Sdn Bhd (MTDC) in 1992. PUNB was formed as a national entrepreneur development corporation, to focus and increase the participation of Bumiputeras in strategic industries, by providing integrated support to Bumiputera entrepreneurs through venture capital management. The MTDC was set up with the primary aim of spearheading the development of technology in Malaysia. To achieve this objective, MTDC was incorporated as a venture capital company under the Ministry of International Trade and Industry (MITI) to facilitate technological development with a view to catalysing the development of the domestic venture capital industry. In 1995, the Malaysian Venture Capital Association (MVCA) was set up by industry participants to promote the venture capital industry, and to serve as a platform for its members to provide views and input on venture capital development to policy-makers. Originally starting with 13 members, the MVCA now has a membership of 44, which includes MTDC and PUNB.

The formation of MESDAQ, which was approved as a stock exchange under Section 8(2) of the SIA in 1997, provides an avenue for high-growth and technology companies to access public funds, and an exit route for venture capitalists. Trading of stocks in MESDAQ began in April 1999.

⁷ Source: Arthur Andersen.

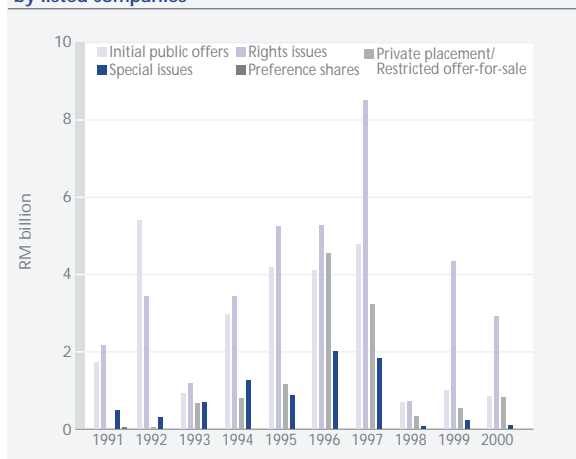
⁸ Source: Bank Negara Malaysia.

Domestic Overview

The domestic stock market

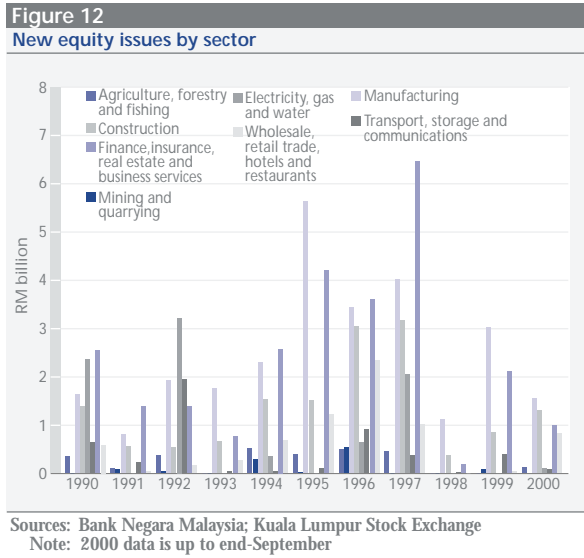
Over the years, the importance of the equity market for private-sector fund-raising has increased significantly. The total value of new issues of ordinary and preference shares raised through the equity market from 1990 up to 1999 amounted to RM87.7 billion, compared to RM10.6 billion raised in the market during 1980–89. Figure 11 shows the total funds raised in the domestic equity market by listed companies from 1990 up to end-September 2000.

Figure 11
Total funds raised in the domestic equity market by listed companies



Sources: Bank Negara Malaysia; Kuala Lumpur Stock Exchange
Note: 2000 data is up to end-September

The equity market in Malaysia has provided financing for a wide variety of economic activities, as indicated by Figure 12. The breadth of the domestic equity market (in terms of sectoral distribution) has grown in tandem with the increasing diversity in the nation's economy and has, in particular, reflected strong growth of equity financing in the finance, manufacturing and construction sectors.



Issuance process for initial public offerings

Figure 13 illustrates the issuance process for initial public offerings (IPOs) within the Malaysian equity market.

The regulatory approval process for a typical IPO, depending on the completeness and the quality of submissions, on average takes approximately four months. The entire listing process for equities from the submission to the listing stage may take up to eight months or more depending on the complexity of the exercise, and the involvement of other authorities.

Moving from merit to disclosure-based regulation

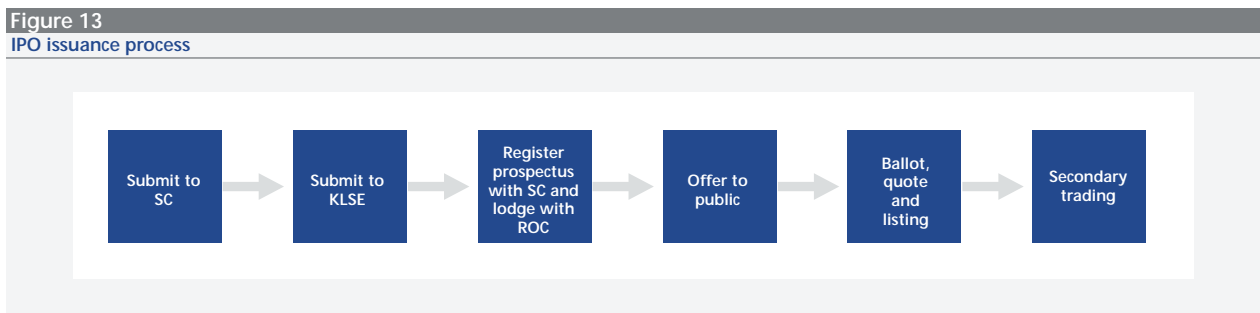
The SC is in the process of undertaking a shift in its regulatory approach from merit-based regulation,

where the SC regulates the offering of securities by reviewing and determining the investment merits of such offering, to disclosure-based regulation (DBR), where the SC regulates the quality of disclosure and investors determine the investment merits of the offering. The SC embarked on the shift towards DBR in 1996 and commenced Phase 2 of a three-phase implementation programme in January 2000. A full DBR framework is expected to be in place in 2001, subject to an assessment of market preparedness. The shift towards full DBR is summarised in the Regulatory Framework section in this appendix.

The domestic venture capital industry

Figure 14 and Figure 15 provide an indication of the size of the domestic venture capital industry. As Figure 14 shows, the number of venture capital companies has increased from 17 in 1996 to 30 by end-1999 (the number of investee companies increased from 231 to 270 in the same period). Based on Figure 15, total assets and cumulative investments of venture capital companies in Malaysia have increased from approximately RM1 billion and RM0.6 billion in 1996 to RM1.7 billion and RM1.4 billion respectively in 1999.

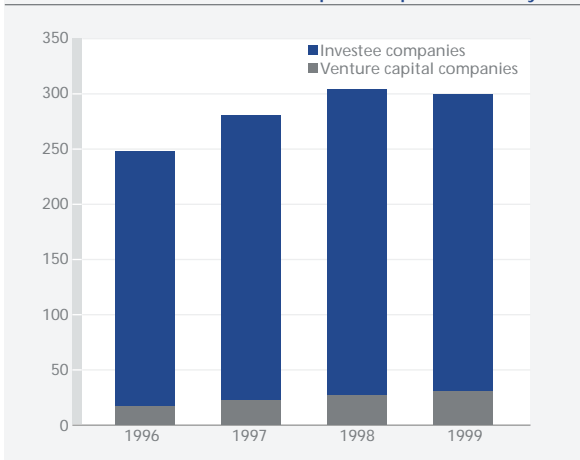
Figure 16 shows that venture capital investments per year have decreased from 1996–99. In particular, 1999 saw a sharp decline in venture capital investments, largely due to a large drop in investments to the manufacturing sector from around RM150 million in 1998 to less than RM50 million. With investments into other sectors experiencing only a marginal decline, the proportion of investments going to the manufacturing sector thus fell significantly from 1996 to 1999.



Source: Securities Commission

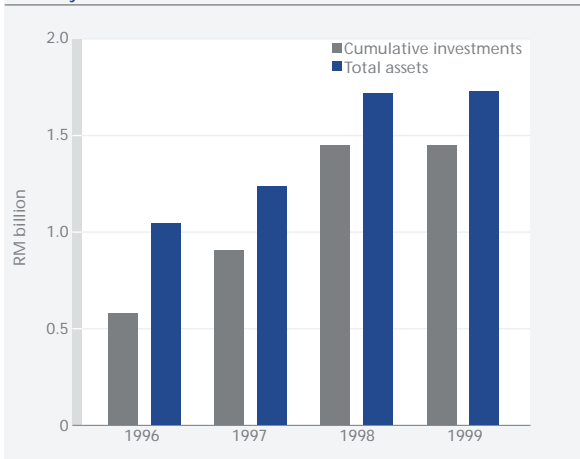
Under the Banking and Financial Institutions Act 1989 (BAFIA), venture capital activities are considered development finance business, and hence companies which engage in such business must register with BNM and submit statistical information on among other things, fund size, types of investment and number of investee companies. However, there are also unregistered venture capital companies, thus making it difficult to assess the characteristics of the domestic venture capital industry as a whole.

Figure 14
Number of investee and venture capital companies in Malaysia



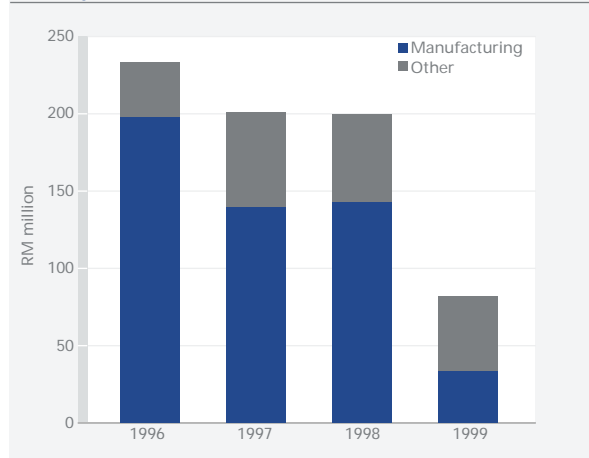
Source: Bank Negara Malaysia

Figure 15
Total cumulative investments and assets of venture capital companies in Malaysia



Source: Bank Negara Malaysia

Figure 16
Investments per year of venture capital companies by sector in Malaysia



Source: Bank Negara Malaysia

International Landscape

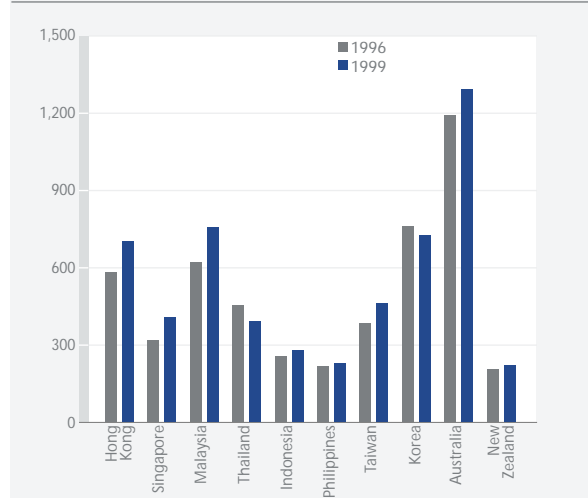
Comparison of stock markets

During 1996–99, the KLSE was one of the fastest growing exchanges in terms of the number of companies listed relative to other Asia-Pacific stock markets (Figure 17). Companies listed on the KLSE grew by approximately 22%, from 621 in 1996 to 788 companies as of end-September 2000. The value of equity funds raised in Malaysia in 1999 was comparable to Singapore and higher than Thailand and the Philippines, but significantly lower than Korea, Indonesia, Australia and Hong Kong. However, compared to 1996, one year before the regional financial crisis, the value of funds raised through the stock market in 1999 was significantly lower (Figure 18).

Some Malaysian companies have also looked to overseas equity markets for funding. Table 7 indicates the companies listed on the KLSE which have listings on foreign stock exchanges.

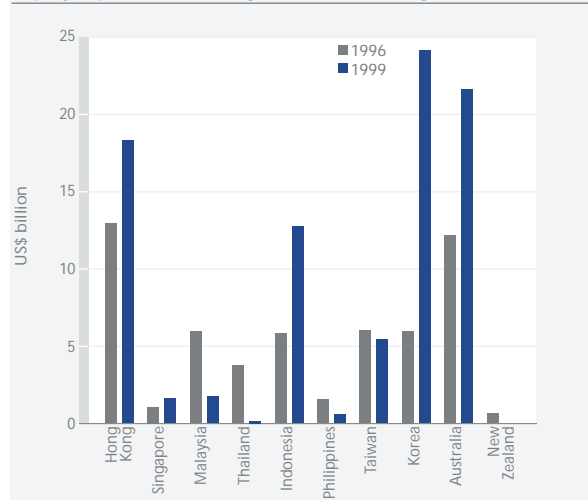
Table 8 compares the KLSE with selected regional stock markets in terms of the number of domestic and foreign-incorporated companies, and their listing requirements.

Figure 17
Number of listed companies in regional stock exchanges



Sources: *Nomura Asia Pacific Market Guide 2000*; Securities Commission

Figure 18
Equity capital raised on regional stock exchanges



Sources: *Nomura Asia Pacific Market Guide 2000*; Securities Commission

Table 7
Malaysian companies listed on the KLSE with equity listings on foreign stock exchanges

Stock exchange	Name of company
LSE	<ul style="list-style-type: none"> Highlands and Lowlands Bhd Inch Kenneth Kajang Rubber PLC Kuala Lumpur Kepong Bhd Kinta Kellas PLC Petaling Tin Bhd Riverview Rubber Estates Bhd Tanjong PLC
SGX	<ul style="list-style-type: none"> Inch Kenneth Kajang Rubber PLC Kinta Kellas PLC
Copenhagen Stock Exchange	<ul style="list-style-type: none"> United Plantations Berhad
Tokyo Stock Exchange	<ul style="list-style-type: none"> YTL Corporation Berhad

Source: Kuala Lumpur Stock Exchange

Table 8

Comparison of selected regional stock exchanges

	KLSE ^a	SGX ^b	SEHK ^c								
Number of domestic and foreign companies	788/3 ^d	325/60 ^e	688/13 ^f								
Quantitative listing requirements	<p>Issuing companies have to comply with the KLSE's and SC's listing requirements. Issuers may also have to obtain approval from regulatory agencies such as the Ministry of Domestic Trade and Consumer Affairs, MITI or FIC, depending on the size of the proposed issue, the targeted investors, etc.</p> <p>Minimum issued and paid-up capital of RM60 million comprising ordinary shares of RM1.00. The company should have an uninterrupted profit record of three full financial years with an aggregate after-tax profit of not less than RM30 million over the three years and an after-tax profit of not less than RM8 million in respect of the most recent financial year; or an uninterrupted profit record of five full financial years with an aggregate after-tax profit of not less than RM30 million over the five years and an after-tax profit of not less than RM8 million in respect of the most recent financial year.</p> <p>The company is required to have, upon listing, the following minimum number of public shareholders holding not less than 1,000 shares each, as follows:</p> <table border="1"> <thead> <tr> <th>Nominal value of issued and paid-up capital</th> <th>Minimum number of shareholders</th> </tr> </thead> <tbody> <tr> <td>RM40 million to less than RM60 million</td> <td>750</td> </tr> <tr> <td>RM60 million to less than RM100 million</td> <td>1,000</td> </tr> <tr> <td>RM 100 million and above</td> <td>1,250</td> </tr> </tbody> </table> <p>At least 25% of the company's issued and paid-up capital at the time of listing shall be in the hands of public shareholders.</p>	Nominal value of issued and paid-up capital	Minimum number of shareholders	RM40 million to less than RM60 million	750	RM60 million to less than RM100 million	1,000	RM 100 million and above	1,250	<p>Applications for new listings of securities have to be submitted to the SGX for approval.</p> <p>All companies seeking listing may list via any of the 3 criteria:</p> <ol style="list-style-type: none"> 1) Cumulative pre-tax profit of at least S\$7.5 million for the past 3 years and a minimum pre-tax profit of at least S\$1 million in each of those years, with operating track record and continuity of management of 3 years; 2) Cumulative pre-tax profit of at least S\$10 million for the latest 1 or 2 years; continuity of management of 1 or 2 years; no operating track record required; or 3) Market capitalisation of minimum S\$80 million at IPO. <p>For primary listing, the shareholding spread should comprise 25% of issued shares in the hands of 1,000 shareholders (or a minimum of 10%, at the exchange's discretion, if market capitalisation is greater than S\$300 million).</p>	<p>All companies must satisfy the rules governing the listing of securities on the SEHK.</p> <p>All new applicants must meet profit record requirements for the three financial years immediately before the application for listing; specifically profit attributable to shareholders must not be less than HK\$20 million in the most recent year, and an aggregate of HK\$30 million for the preceding two years.</p> <p>The issuer must have three years of trading record.</p> <p>The issuer must have a market capitalisation of HK\$100 million at the time of listing. There is no paid-up capital restriction.</p> <p>At the time of listing, there must be a minimum of 100 holders with not less than three holders per HK\$1 million.</p>
Nominal value of issued and paid-up capital	Minimum number of shareholders										
RM40 million to less than RM60 million	750										
RM60 million to less than RM100 million	1,000										
RM 100 million and above	1,250										

Sources: Listing guidelines and information obtained through official sources

Notes: a) Main Board

b) Main Board

c) Unless otherwise specified, SEHK information is as at end 1999

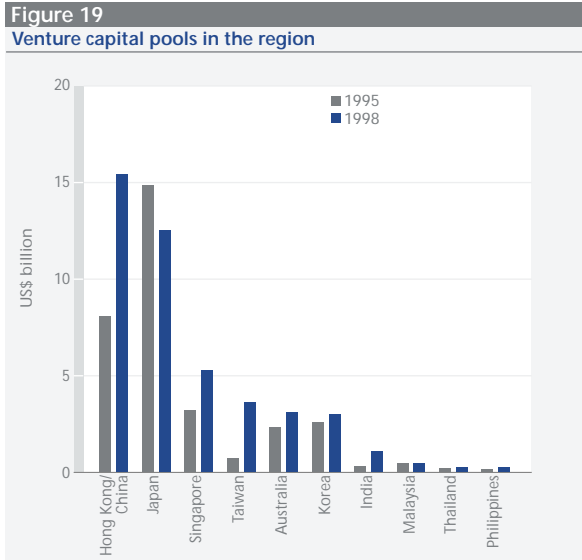
d) Foreign companies refer to foreign-incorporated companies

e) Foreign companies refer to foreign-incorporated companies

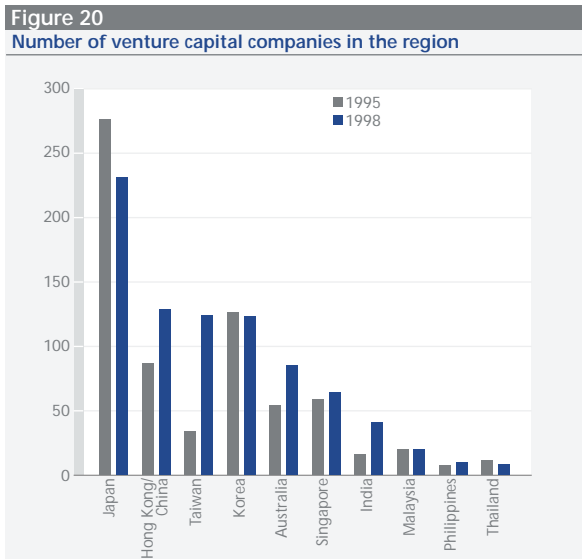
f) According to the *SEHK Factbook* 1999, a listed company would be counted as a foreign company if it is incorporated abroad and has a majority of its business outside Hong Kong and China. Otherwise, it would be considered a domestic company

Comparison of venture capital industries

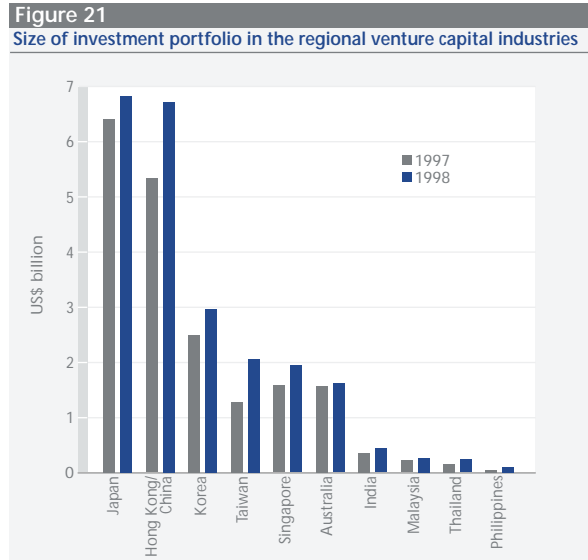
Figure 19, Figure 20 and Figure 21 show that relative to other markets in the region, the Malaysian venture capital industry is small in terms of the size of the venture capital pool, the number of companies and the size of investment portfolios.⁹



Source: *The 2000 Guide to Venture Capital in Asia (Eleventh edition)* by Asian Venture Capital Journal



Source: *The 2000 Guide to Venture Capital in Asia (Eleventh edition)* by Asian Venture Capital Journal



Source: *The 2000 Guide to Venture Capital in Asia (Eleventh edition)* by Asian Venture Capital Journal

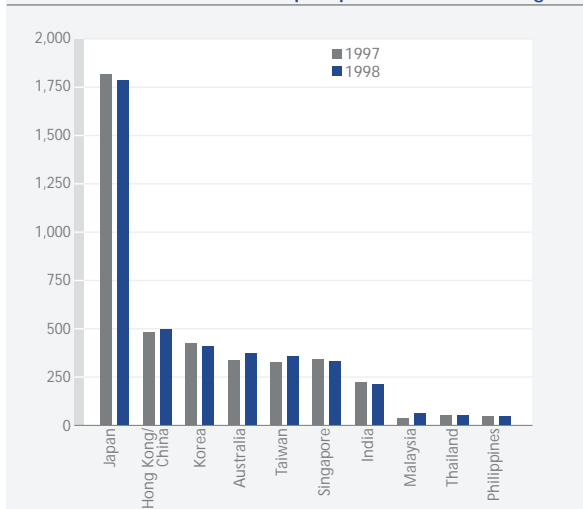
Based on 1998 data, the largest capital pool, ie, Hong Kong is approximately 34 times that of Malaysia's. Figure 19 shows that India's venture capital industry, the next largest after Malaysia among the jurisdictions under review in 1995 however, was more than twice the size of the Malaysian industry in 1998. The growth of the industry in terms of venture capital pool for Hong Kong (92%), Taiwan (417%), India (275%) and Singapore (66%) has far surpassed that of Malaysia's industry (5%) from 1995-98.

In terms of the growth in the number of companies, Taiwan (265%) and India (156%) have far exceeded that for Malaysia (no change). Also, at US\$265 million, Malaysia has the third lowest investment portfolio relative to the ten countries under review (Figure 21).

Figure 22 shows that relative to the other jurisdictions, there is currently a significant lack of specialised expertise in the Malaysian venture capital industry. According to the chart, Malaysia has among the lowest number of professionals, and based on 1998 data, the lowest in terms of the ratio of professionals to companies, ie, 2.95. For the rest of the other jurisdictions, the ratio of professionals to companies ranged from 3.0-7.7.

⁹ *The 2000 Guide to Venture Capital in Asia (Eleventh edition)* defines "venture capital pool" as the total funds under management, and "investment portfolio" as the cumulative total of existing investments, less any divestments made.

Figure 22
Estimated number of venture capital professionals in the region



Source: *The 2000 Guide to Venture Capital in Asia (Eleventh edition)* by Asian Venture Capital Journal

Sources and disbursements of venture capital funds

Table 9 provides a snapshot of the funding sources for eight of the largest venture capital pools in Asia. The Malaysian government has been the main contributor of funds for the domestic venture capital industry by providing 41% of total funds; in contrast, other governments typically provide 2-15% of venture capital funds. In other markets, pension funds, insurance companies and businesses typically provide the largest proportion of venture capital funds (60-80%); however, at 35%, Malaysian corporates, pension funds and insurance companies provided the smallest proportion of funds of the countries surveyed.

In terms of the geographical origin of venture capital funds, domestic sources contributed to 47% of total funds in Malaysia (Table 10). In Australia, domestic sources accounted for 90% of funds compared to Hong Kong, which has 91% of funds sourced from abroad.

Table 11 provides an indication of the disbursements (ie, investments) of venture capital funds by financing stages in various Asian jurisdictions. The Malaysian venture capital industry, like most other jurisdictions represented in the table, tended to channel less funds towards seed and early stages of financing. Malaysian companies in the start-up or early stage only received 15% of funds from the venture capital industry, compared to 52% of funds received for expansion or development. In jurisdictions such as Hong Kong and India, funds were more evenly spread between early stage and development financing. In a bid to encourage the venture capital industry to invest more funds in the start-up and early stages of financing, the Budget 2000 provided for full income tax exemptions for a period of 10 years for venture capitalists who invest funds up to 70% in start-up, seed capital or early stage financing. For this purpose, the government also announced the role of the SC in accrediting and certifying venture capital companies to determine their compliance with conditions necessary to qualify for the tax incentives.

Venture capital exit mechanisms

A well-functioning exit mechanism for venture capitalists is an important factor in the development of a vibrant venture capital industry. These mechanisms can either take the form of an informal trade market, whereby a start-up is sold to a corporation or another venture capitalist having the necessary strategic fit to extract maximum value out of the start-up, or a specialised stock exchange that facilitates the listing of high-growth companies. Table 12 compares selected high-growth exchanges in the region in terms of their listing and other requirements.

Table 9

Sources of venture capital for selected jurisdictions in 1998 (%)

	Pension funds	Insurance companies	Corporate	Government agencies	Private individuals	Banks	Others
Australia	52	4	8	15	7	9	5
Hong Kong	7	27	46	6	6	8	-
India	1	3	59	10	8	17	2
Japan	5	15	51	4	2	15	8
Malaysia	1	5	29	41	1	16	7
Philippines	-	-	67	5	7	11	10
Singapore	3	9	49	11	5	18	5
Taiwan	1	7	61	2	20	6	3

Source: *The 2000 guide to Venture Capital in Asia (Eleventh edition)* by Asian Venture Capital Journal

Table 10

Geographical breakdown of venture capital financing sources in 1998 (%)

	Domestic capital	Capital from Asian countries	Capital from non-Asian countries
Australia	90	4	6
Hong Kong	9	19	72
India	45	2	53
Japan	90	2	8
Malaysia	47	27	26
Philippines	45	11	44
Singapore	21	46	33
Taiwan	81	6	13

Source: *The 2000 guide to Venture Capital in Asia (Eleventh edition)* by Asian Venture Capital Journal

Table 11

Disbursements by financing stages in 1998 (%)

	Seed/ R & D	Start-up/ early stage	Expansion/ development	Mezzanine/ bridge finance	Buyout/ buy-in	Turnaround/ restructuring	Other stages
Australia	4	5	59	6	21	3	2
Hong Kong	5	27	43	2	15	6	2
India	8	45	39	5	1	2	-
Japan	3	13	54	25	-	5	-
Malaysia	-	15	52	12	8	-	13
Philippines	-	10	72	2	16	-	-
Singapore	4	19	48	16	7	6	-
Taiwan	7	19	49	22	1	2	-

Source: *The 2000 guide to Venture Capital in Asia (Eleventh edition)* by Asian Venture Capital JournalNotes: *The 2000 Guide to Venture Capital in Asia (Eleventh edition)* defines financing stages as follows:

- Seed/R&D: Financing provided to a venture with an initial concept for research and development of a product
- Start-up/early stage: Financing provided to a company for product development and initial marketing
- Expansion/development: Financing provided for the growth and expansion of a company that has built up a short track record
- Mezzanine/bridge finance: Financing provided to help a company go public
- Buyout/buy-in: Financing provided, in terms of loans and/ or equity investment, to enable the existing management team or an outside investor to acquire a product line or business
- Turnaround/restructuring: Financing provided to re-established a business which has encountered performance difficulties
- Other stages: Financing made available to privatisation, bridge loan and public market purchase

Table 12

Features of selected growth exchanges

Requirements ^a	Growth Enterprise Market, Hong Kong (GEM)	Singapore Exchange of Securities Dealers Automated Quotation (SESDAQ)	MESDAQ	Nasdaq
Issued and paid-up capital	No specific requirements.	No specific requirements.	Minimum RM2 million.	No specific requirements.
Profit or revenue requirement	No specific requirements.	No specific requirements.	If the company is involved in technology-based activities, it does not require a minimum period of business operations or a profit record. If the company is not involved in technology-based activities, it must have generated operating revenue for at least 12 months at the time of seeking admission. However, no profit track record is required.	Nasdaq offers three options for initial listing. The three options differ in terms of listing requirements which cover minimum value of net tangible assets and record of pre-tax income. Under option 1, pre-tax income (in latest fiscal year or 2 of last 3 fiscal years) must be at least US\$1 million. No such requirement under options 2 and 3.
Explicit requirements on domicile of issuers	Companies incorporated in Hong Kong, Bermuda, the Cayman Islands and China are allowed to be listed.	Singapore and foreign-incorporated companies are allowed to be listed for both primary and secondary listing.	Companies incorporated in Malaysia are allowed to be listed.	Foreign-incorporated companies are allowed to be listed.
Net tangible assets	No specific requirements.	No specific requirements.	Net tangible assets per share upon listing on MESDAQ should not be less than par value. However, MESDAQ may exercise discretion to allow net tangible assets per share to be less than par value.	Under option 1, net tangible assets must be at least US\$6 million. Under option 2, net tangible assets must be at least US\$18 million. There is no restriction under option 3.
Shareholding spread (at IPO)	Minimum 100 public holders.	15% of issued shares in the hands of minimum 500 shareholders.	Minimum 25% but maximum 49% of nominal issued and paid-up capital to be held by the public; and minimum 200 public shareholders.	Under options 1, 2 and 3, a public float of 1.1 million shares must be maintained.
Minimum holdings by promoters/management shareholders and significant shareholders	Collectively, minimum 35% of the paid-up capital must be held by management/significant shareholders at the time of listing.	No specific requirements.	The promoters must hold at least 51% of the issued and paid-up shares of the company upon admission to MESDAQ.	No specific requirements.
Moratorium on shareholding	2 years for management shareholders ^b ("MS"). MS may dispose shareholdings in general offer during the 2nd year but subject to independent shareholders' approval. 6 months – if approved by GEM Listing Committee. Controlling shareholder is deemed as MS. 6 months for significant shareholders (controlling 5% or more of voting power, but not a MS).	For primary listing – for 12 months for promoter's entire shareholdings; and at least 50% of original aggregate shareholding for the next 12 months.	The promoters must hold at least 45% of the issued paid-up shares of the company for one year after the company's admission to MESDAQ. After 1 year – disposal of shares at a maximum of one third of shareholding per annum on a straight-line basis.	None unless required by underwriters.
Utilisation of proceeds	Must explain the use of the proceeds in detail by reference to business objectives.	No specific requirements.	Minimum 70% of the funds raised shall be utilised in Malaysia. Currently, the exchange is considering to relax its ruling.	No specific requirements.
Listing fees	Initial listing fee: HK\$100,000 - 200,000. Annual listing fee: HK\$100,000 - 200,000. Subsequent issue fee: HK\$5,000 - 75,000.	Initial/additional listing fee: S\$250 per million dollars or part thereof of the nominal value of the securities, subject to a minimum fee of S\$1,000 and maximum fee of S\$5,000. Annual listing fee: S\$50 per million dollars or part thereof of the nominal value of securities listed, subject to a minimum fee of S\$200 and a maximum fee of S\$1,000. Perusal fee: S\$500 – 1,000.	Processing and initial listing fees: RM32,500. Annual listing fee: RM2,500. Perusal fee: Determined from time to time. Additional listing fee: RM2,500 for each class of securities.	For the National Market: Entry fee: US\$34,525 - 95,000. Annual fee: US\$10,710 - 50,000. Foreign share and American Depository Receipt (ADR) initial fee: US\$34,525 - 95,000. ADR annual fee: US\$2,500 - 8,000.

Sources: Listing guidelines and information obtained through official sources

Notes: a) As at end-March 2000 for GEM; as at end-December 2000 for SESDAQ; as at end-September 2000 for MESDAQ; as at end-March 2000 for Nasdaq

b) Any person who is, or group of persons who together are, entitled to exercise 5% or more the voting power of an issuer and who is or are able to direct or influence the management is regarded as a management shareholder

BOND MARKET

In the context of the discussion that follows, the Malaysian bond market is viewed mainly in terms of its issuer base, which broadly consists of the public debt securities market and the private debt securities (PDS) market and in terms of its market structure, which comprises an unlisted, or OTC segment, operating through the interbank market, as well as a listed segment on the KLSE.

Background

Table 13 lists the types of bonds traded in the Malaysian bond market. Public debt securities consist of Malaysian government securities (MGS), Khazanah bonds, Malaysia savings bonds and government investment issues. Bonds traded in the PDS market include: long-term corporate bonds (redeemable, non-conventional secured and unsecured); short-term bonds; Cagamas bonds; Pengurusan Danaharta Nasional Berhad (Danaharta) bonds; Danamodal Nasional Berhad (Danamodal) bonds and Islamic debt securities.

Regulation of the Malaysian bond market mainly falls under the purview of the SC and BNM. On 1 July 2000, the SC became the single approving authority for PDS issuance—that is, for both the listed and unlisted market. The SC also registers and approves the prospectuses of PDS issues, and regulates secondary trading activity of listed bonds. BNM is responsible for overseeing the public debt securities market and for regulating the secondary market for non-listed bonds.

The participants in the Malaysian bond market include financial institutions—which, among others, comprise commercial banks, finance companies, merchant banks and discount houses—as well as unit trusts, provident and pension funds, and insurance companies.

Among the financial institutions, commercial banks actively provide the underwriting, dealing and distribution services for bond issuance exercises. In addition, they also invest in bonds for their own accounts and treasury operations. Lately, commercial banks have also played an active role as arrangers of bond issues, as have merchant banks, who arrange, structure and manage the PDS facility for the issuer. Merchant banks also act as underwriters of PDS

Table 13

Bonds traded in the Malaysian bond market

Type of bond	Description
MGS	<ul style="list-style-type: none"> • Medium to long-term debt securities with an original maturity of more than one year • MGSs are offered on a "best price" tender basis
Government investment issues	<ul style="list-style-type: none"> • A form of Islamic instrument accorded as a form of liquid asset • Islamic banks can invest in these certificates to comply with stipulated liquidity requirements
Corporate bonds	<ul style="list-style-type: none"> • The principal distinguishing features between these instruments are the tenure, the interest payment and the principal repayment • The tenure is usually classified as short-term (less than 1 year), medium-term (between 1 and 7 years) and long-term (more than 7 years) • There are issues with fixed as well as floating interest rates • Corporate bonds also include hybrid securities such as convertible bonds
Khazanah bonds	<ul style="list-style-type: none"> • Issued in 1997 by Khazanah Nasional, to create a liquid benchmark security in the Malaysian bond market
Cagamas bonds	<ul style="list-style-type: none"> • Issued by Cagamas Berhad • Cagamas bonds are bearer bonds constructed by Cagamas Berhad from housing loans purchased from loan originators • Tier-1 bonds are backed by the purchase of conventional housing loans and Islamic housing loans, while Tier-2 bonds are backed by the purchase of industrial property loans

Source: Securities Commission

issues and actively provide dealing and distribution services in the secondary bond market. Finance companies tend to invest and trade in fully secured or guaranteed bonds for their own accounts, while discount houses invest in Malaysian treasury bills, MGS and PDS.

Financial institutions act as intermediaries (known as “principal dealers”) for investors who wish to purchase government bonds and Cagamas bonds through BNM’s bond auctions. In this capacity, financial institutions also serve as market makers on the Real Time Electronic Transfer of Funds and Securities (RENTAS) bond settlement system. In addition, financial institutions act as “approved dealers” that transact in bonds on behalf of third parties.

The participation of the Employees Provident Fund (EPF), the Lembaga Tabung Angkatan Tentera (LTAT) or the Armed Forces Fund, and the Social Security Organisation (SOCSCO) in the bond market, is partly driven by statutory requirements that make it mandatory for them to invest about 70% of their funds in MGS (unless approved otherwise by the Minister of Finance).

Life and general insurance companies are also required, under the Insurance Act 1996 administered by the Director-General of Insurance (DGI), to invest a proportion of their funds in authorised long-dated Malaysian securities.

Unit trust funds participate in both the short- and long-end of the market, holding diversified portfolios of money market instruments as well as of bonds. However, specialised bond funds are still a relatively small proportion of investment management funds in Malaysia: under 8% of Malaysia’s 107 unit trust funds were specialised bond funds as at end-September 2000.¹⁰ By contrast, bond funds made up 2,261 or nearly 30% of the 7,791 mutual funds in the US.¹¹

The mandatory requirement for the rating of corporate bonds in May 1992 served as an impetus for the development of the domestic credit rating industry. (Table 14 compares Malaysia’s rating requirements with other Far Eastern markets.) Malaysia currently has two domestic credit rating agencies. The Rating Agency of Malaysia Berhad (RAM) was incorporated in 1990 to undertake the credit rating of corporate bonds and to spur the development of the PDS market. Currently, RAM rates PDS, Islamic PDS and the claims paying ability of insurance companies. In 1995, the Malaysian Rating Corporation Berhad (MARC) was established with a paid-up capital of RM10 million. Its major shareholders are insurance companies, stockbroking companies and discount houses.

Table 14
Rating requirements on corporate bond issues

Country	Rating compulsory ^a	Investment grade restriction ^b
Hong Kong	No	No
Indonesia	Yes	No
Korea ^c	Yes	No
Malaysia ^d	Yes	No
Philippines	Yes	No
Singapore	No	No
Taiwan	Yes	No
Thailand	Yes	No

Sources: Arthur Andersen; Securities Commission

- Notes : a) Rating compulsory means that ratings by a recognised agency are required before issuing a bond
 b) Investment grade restriction refers to restrictions on certain institutions/investors’ ability to invest if the ratings fall below a particular investment grade
 c) Guaranteed bonds can be issued without a rating in Korea
 d) The investment grade restriction in Malaysia was lifted on July 2000

The main clearing and settlement mechanisms in the Malaysian bond market comprise the Fully Automated System for Tendering (FAST), RENTAS and the Bond Information Dissemination System (BIDS). Currently, these mechanisms can only be utilised by BNM-approved institutions. Further details of these systems can be found in the Technology and E-commerce section of the appendix.

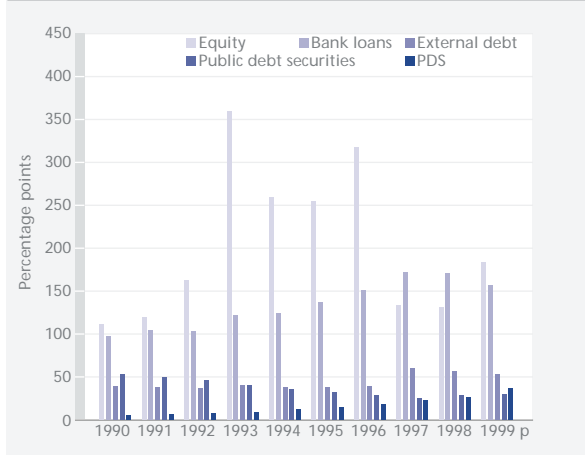
¹⁰ Source: Lipper Analytical Services.

¹¹ As of end of 1999. Source: *Mutual Fund Fact Book 2000 Edition*, Investment Company Institute, May 2000.

Domestic Overview

Loans by the banking sector have tended to be the major source of debt financing in Malaysia (Figure 23).

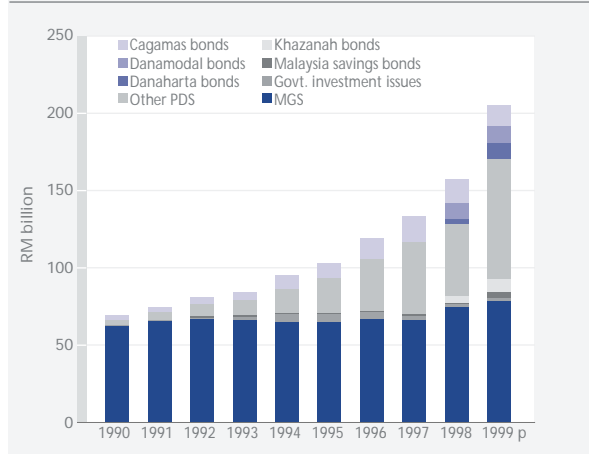
Figure 23
Financial depth of selected financial instruments (amount outstanding as a percentage of nominal GDP)



Sources: Bank Negara Malaysia; Securities Commission
 Notes: a) Public debt securities refers to MGS, government investment issues, Khazanah bonds and Malaysia savings bonds
 b) PDS refers to Cagamas bonds, Danamodal bonds, Danaharta bonds and other PDS
 c) Bank loans refers to loans extended by the financial system, which includes commercial banks, merchant banks, finance companies, Bank Simpanan Nasional (BSN) and Islamic banks
 d) Equity as a percentage of nominal GDP is calculated based on total KLSE market capitalisation divided by nominal GDP
 e) All data used in 1999 is preliminary except for KLSE market capitalisation and external debt
 *p-preliminary

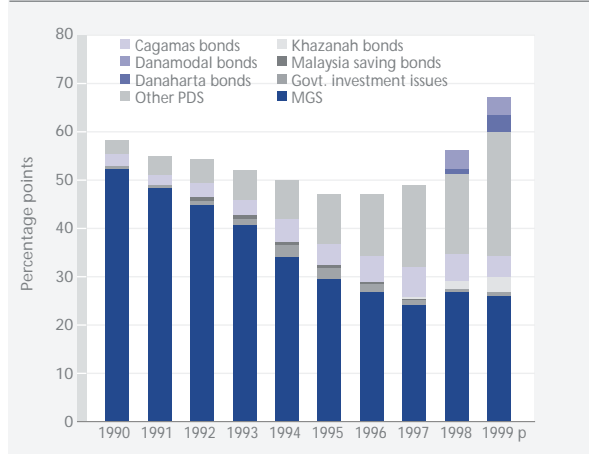
Nevertheless, during the 1990s, the domestic bond market has seen rapid growth (Figure 24). In particular, since the mid-1990s, the PDS market has expanded relatively rapidly, both in absolute amounts as well as a percentage of nominal gross domestic product (GDP) (Figure 24 and Figure 25).

Figure 24
Outstanding capital market debt securities



Source: Bank Negara Malaysia
 Note: Other PDS refers to listed and unlisted private bonds other than those issued by Cagamas, Danaharta and Danamodal
 *p-preliminary

Figure 25
Outstanding capital market debt securities as a percentage of nominal GDP



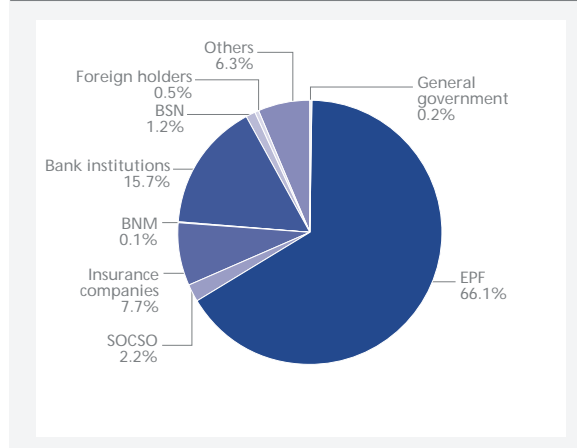
Sources: Rating Agency of Malaysia; Bank Negara Malaysia; Securities Commission
 Note: Other PDS refers to listed and unlisted private bonds other than those issued by Cagamas, Danaharta and Danamodal
 *p-preliminary

The Malaysian public debt securities market

MGS constitute the largest portion of the Malaysian public debt securities market. Over the years, the MGS maturity profile has lengthened as funds were raised for the financing of longer-term public sector development projects. During the period 1990–2000, more than half of MGS outstanding had original maturities above 11 years (Table 15).

The EPF is the primary investor of MGS (Figure 26). As at the end of 1999, the EPF held about 66% of MGS outstanding. After declining in the mid-1990s, EPF holdings of MGS as a percentage of the total value of MGS outstanding rose sharply from 1997 following a jump in net MGS issuance (Figure 27).

Figure 26
MGS investor profile as at end-1999 (preliminary)



Sources: Bank Negara Malaysia; Securities Commission

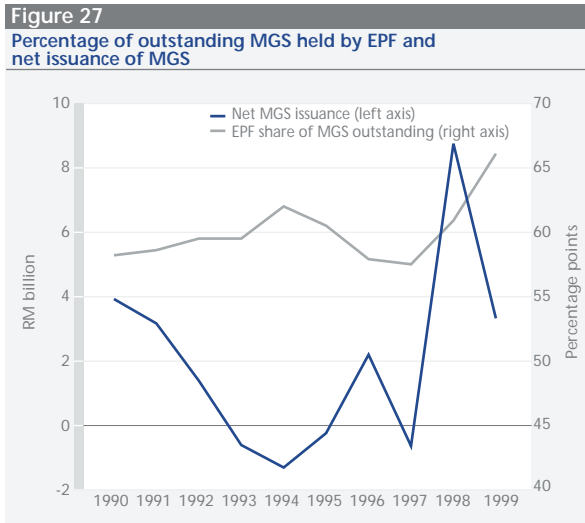
Table 15
MGS outstanding – classification by original maturity (RM billion)

Year	2 to 3 Years	4 to 5 Years	6 to 10 Years	11 to 15 Years	Above 15 years	Total
1990	-	2	11	12	37	62
1991	-	3	12	13	38	65
1992	-	2	14	14	37	67
1993	-	3	13	13	37	66
1994	-	2	12	14	37	65
1995	1	2	11	14	37	65
1996	1	4	14	13	35	67
1997	1	6	12	13	35	66
1998	2	7	15	15	37	75
1999 p	4	9	16	15	36	78
2000 p	7	12	24	12	34	89
Share of total (%)						
1990	-	3.6	17.8	19.6	59.0	100
1991	-	4.2	17.8	20.3	57.7	100
1992	-	2.8	20.9	20.9	55.4	100
1993	-	5.3	20.2	19.1	55.4	100
1994	-	3.2	19.0	21.5	56.3	100
1995	1.5	3.3	17.7	21.0	56.5	100
1996	1.5	5.3	21.1	19.3	52.8	100
1997	1.5	8.5	18.8	19.0	52.2	100
1998	2.7	8.7	20.1	19.7	48.8	100
1999 p	5.1	10.8	19.9	18.6	45.6	100
2000 p	8.3	12.9	26.4	13.8	38.6	100

Sources: Bank Negara Malaysia; Securities Commission

Note: 2000 figures are as at end-September

*p-preliminary



Sources: Bank Negara Malaysia; Securities Commission
 Note: a) Net issuance equals outstanding value at the end of the year minus outstanding value at the beginning of the year
 b) Net MGS issuance data for 1999 is preliminary

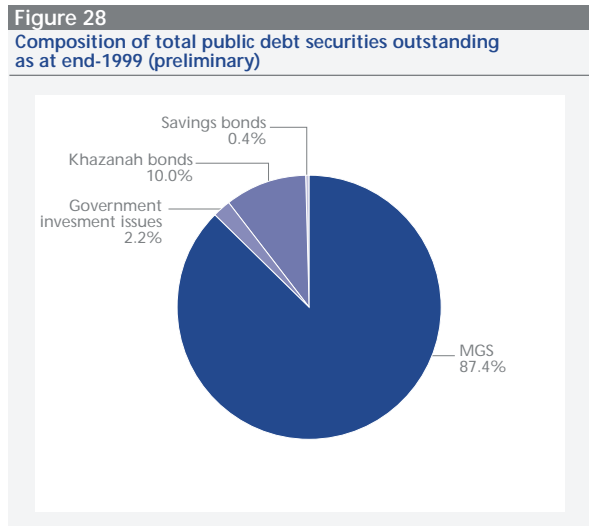
Net issuance had declined dramatically during 1990–94 in line with the government’s fiscal policy (Table 16). However, from 1996–99, net issuance of MGS increased again in light of the demands of the financial crisis.

Table 16
MGS issuance since 1990 (RM million)

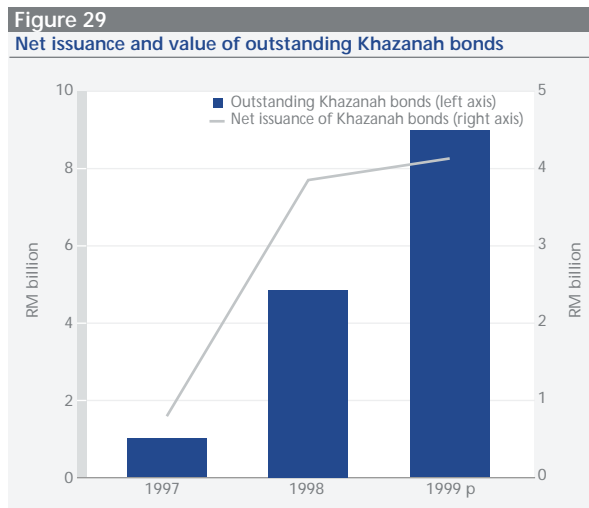
Year	Gross issue	Redemptions	Net issue
1990	5,140	399	4,741
1991	3,500	343	3,157
1992	3,800	2,421	1,380
1993	1,600	2,225	(625)
1994	2,229	3,549	(1,320)
1995	2,000	2,250	(250)
1996	6,000	3,809	2,191
1997	3,000	3,648	(648)
1998	14,950	6,200	8,750
1999 p	10,000	6,676	3,324

Source: Bank Negara Malaysia
 Note: *p-preliminary

As at the end of 1999, MGS accounted for over 87% of total public debt securities outstanding (Figure 28). During that time, the total amount of MGS outstanding was about RM78.3 billion.¹² In 1997, to provide an alternative security for developing a benchmark yield curve, the government began the issuance of Khazanah bonds (Figure 29). However, these bonds have been less liquid than MGS (Figure 30).

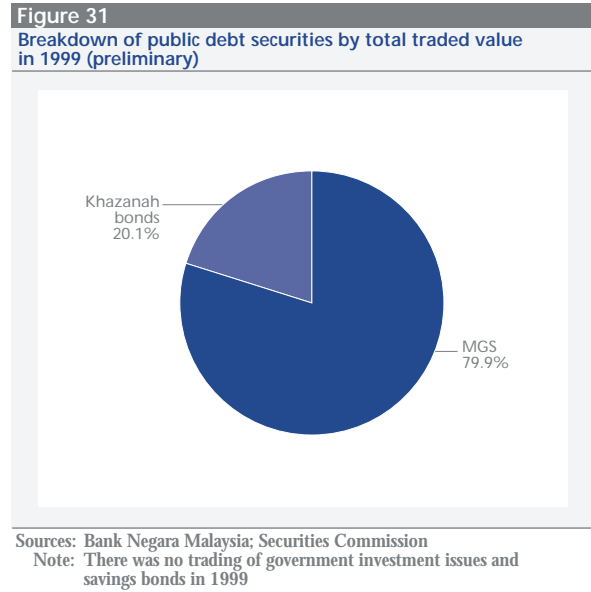
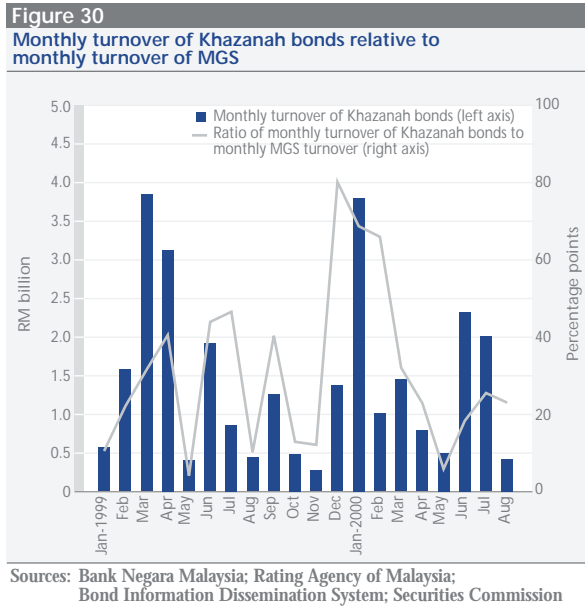


Sources: Bank Negara Malaysia; Securities Commission

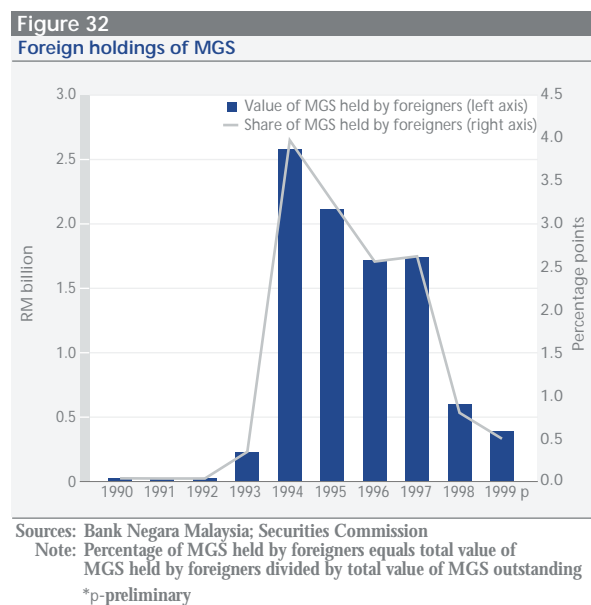


Sources: Bank Negara Malaysia; Securities Commission
 Notes: a) Net issuance equals outstanding value at the end of the year minus outstanding value at the beginning of the year
 b) Khazanah bonds were only issued from 1997 onwards
 *p-preliminary

¹² Source: Bank Negara Malaysia.

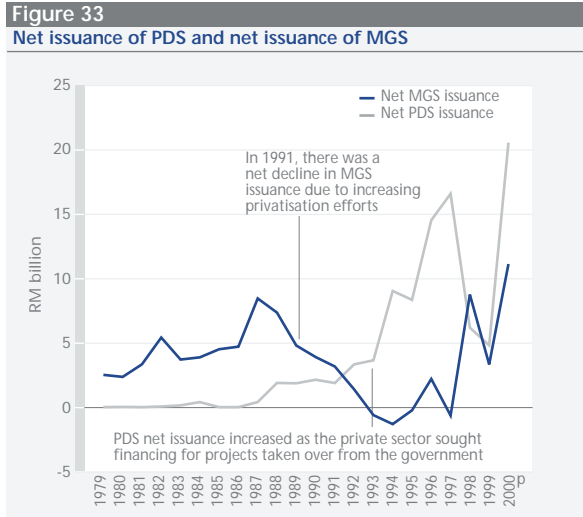


In 1999, MGS accounted for the bulk of total value traded of Malaysian public debt securities (Figure 31). During 1993–94, foreign holdings of MGS rose dramatically. However, since then, foreign holdings of MGS have declined (Figure 32).



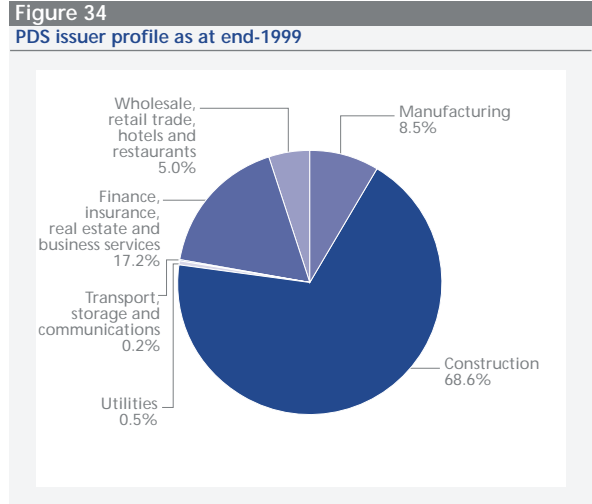
The Malaysian PDS market

PDS issuance in Malaysia saw a sharp rise after 1991 relative to MGS following the implementation of the privatisation masterplan (Figure 33). As at the end of 1999, there was a total of RM111.8 billion of PDS outstanding in Malaysia.¹³

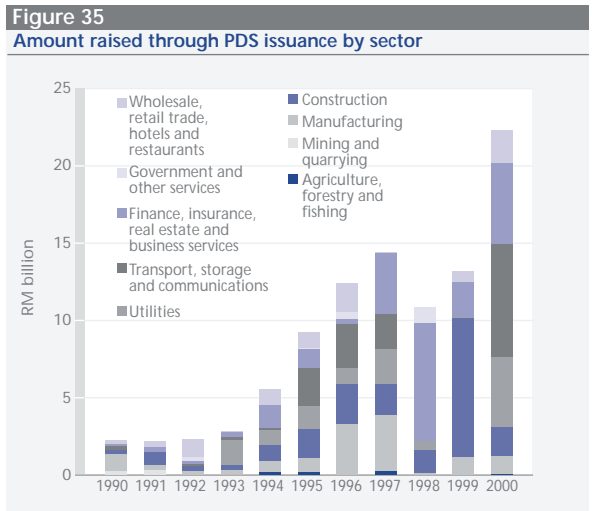


Sources: Bank Negara Malaysia; Securities Commission
 Notes: a) Net issuance equals outstanding value as at end of the year minus outstanding value at the beginning of the year
 b) Net issuance of PDS excludes bonds issued by the banking institutions
 *p-preliminary

In 1999, PDS issues (excluding Cagamas bonds) encompassed the major sectors of the Malaysian economy (Figure 34). From 1990–99, the construction sector has become an increasingly active issuer of PDS (Figure 35). As at the end of 1999, the construction sector accounted for over 68% of total PDS issuance.



Sources: Bank Negara Malaysia; Securities Commission
 Note: Excluding Cagamas bonds

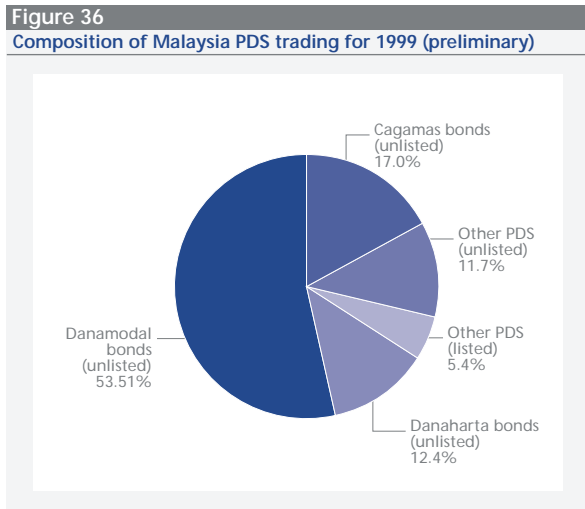


Sources: Bank Negara Malaysia; Securities Commission
 Note: Excluding Cagamas bonds

Unlisted PDS contributes to the bulk of PDS value turnover value (Figure 36). In 1999, Danamodal bonds accounted for 53% (RM41 billion) of total Malaysian PDS trading value. Cagamas and Danaharta bonds had the next largest trading value, together comprising nearly 30% of the total. Other unlisted PDS accounted for nearly 12% of total turnover, while listed PDS formed under 6%.¹⁴

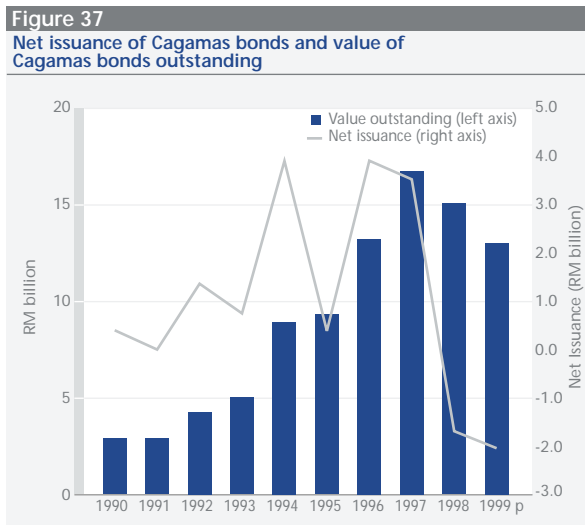
¹³ Source: Bank Negara Malaysia.

¹⁴ See footnote 13.



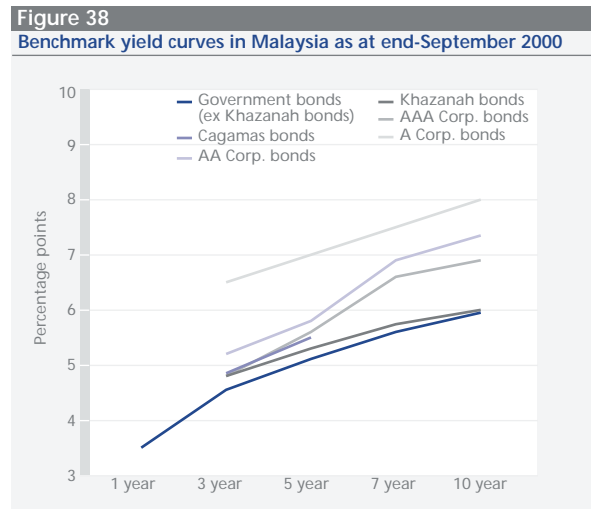
Sources: Bank Negara Malaysia; Securities Commission

From 1990–97, the value of Cagamas bonds outstanding increased in line with the increase in net issuance. However, in 1998, the amount outstanding declined as net issuance fell by RM6 billion with the advent of the financial crisis (Figure 37).



Sources: Bank Negara Malaysia; Securities Commission
 Note: Net issuance equals outstanding value as at end of the year minus outstanding value at the beginning of the year
 *p-preliminary

Benchmark proxies include Cagamas bonds, Khazanah bonds and highly-rated corporate bonds (A or above).¹⁵ Typically, corporate bonds offer the highest yields, followed by Cagamas bonds, Khazanah bonds and other public debt securities (Figure 38).



Source: ABN AMRO
 Note: Ratings are those of RAM

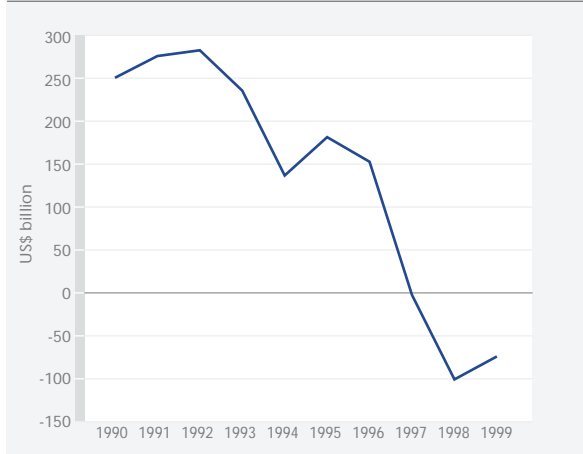
¹⁵ Based on RAM ratings.

International Landscape

The US bond market

The US Treasury securities market is generally considered the largest and most liquid market for government bonds in the world. Average daily volume of Treasury securities amounted to US\$205.2 billion for the year ended 30 June 2000.¹⁶ Figure 39 shows a marked decline in the total net issuance of US Treasury securities from 1990–99 in line with US fiscal policy. As of end-June 2000, there were US\$3.1 trillion worth of Treasury securities outstanding.¹⁷

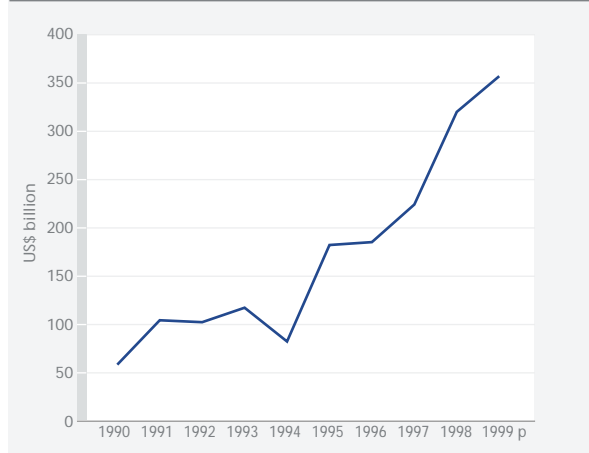
Figure 39
Net issuance of US treasuries



Source: US Treasury
 Note: Net issuance was calculated as follows: net issuance equals outstanding value at the end of the year minus outstanding value at beginning of the year

The US also has the largest corporate bond market in the world. From 1990–99, the US corporate bond market experienced rapid growth (Figure 40), largely as the result of active financial restructuring and a relatively low interest rate environment. As at end-June 2000, there were US\$3.2 trillion worth of US corporate bonds outstanding.¹⁸

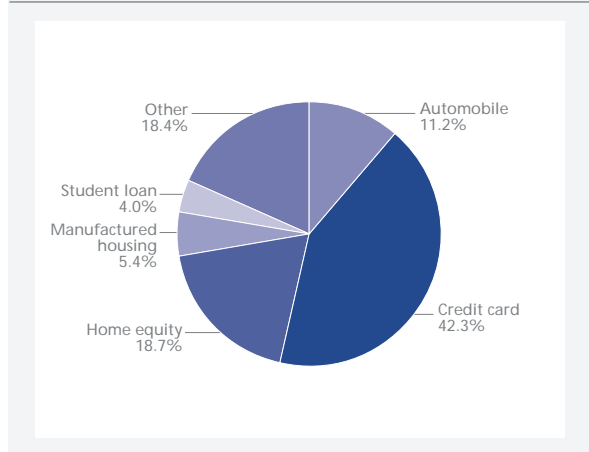
Figure 40
Net issuance of US corporate bonds



Source: The Bond Market Association
 Note: Net issuance was calculated as follows: net issuance equals outstanding value at the end of the year minus outstanding value at the beginning of the year
 *p-preliminary

Securitisation has been and continues to be a key driver of bond market activity in the US. As at end-June 2000, total asset backed securities outstanding in the US amounted to US\$773.6 billion.¹⁹ Credit card debt accounted for the largest portion of securitised assets in the US as at end-June 2000 (Figure 41).

Figure 41
US securitisation by asset type as at end-June 2000

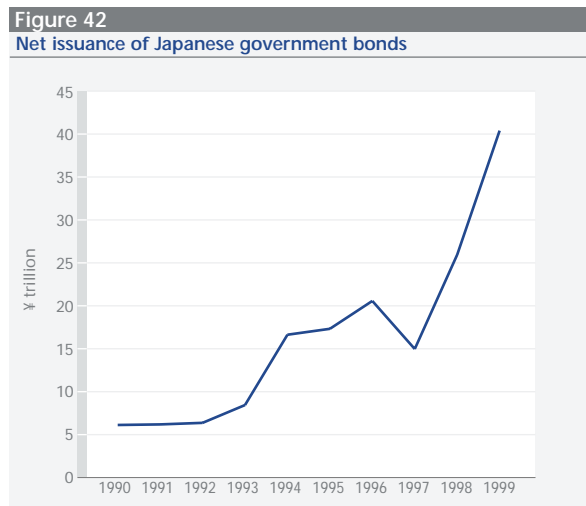


Sources: The Bond Market Association; Federal Reserve System; Securities Commission

¹⁶ Source: Federal Reserve Bank of New York.
¹⁷ Source: US Treasury.
¹⁸ Source: The Bond Market Association.
¹⁹ Sources: The Bond Market Association; Federal Reserve System.

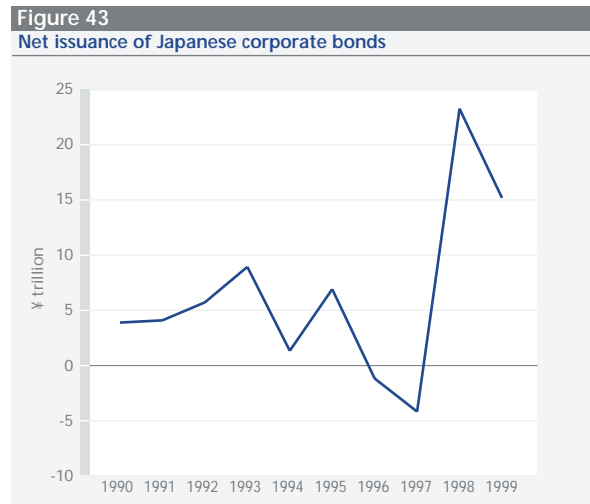
The Japanese bond market

The Japanese bond market is currently the second largest market in the world for government and corporate bonds. As at end-June 2000, there were ¥348.5 trillion worth of Japanese government bonds outstanding.²⁰ From 1990–99, total net issuance of Japanese government bonds increased by more than eight times (Figure 42).



Source: Datastream/ICV

From 1990–99, total net issuance of Japanese corporate bonds rose by about three-fold. Most of the rise in net issuance occurred from 1997–98 (Figure 43). As at the end of 1999, there were ¥92.6 trillion worth of Japanese domestic corporate bonds outstanding.²¹



Sources: Bank for International Settlements; Datastream/ICV
Note: Net issuance equals outstanding value at the end of the year minus outstanding value at the beginning of the year

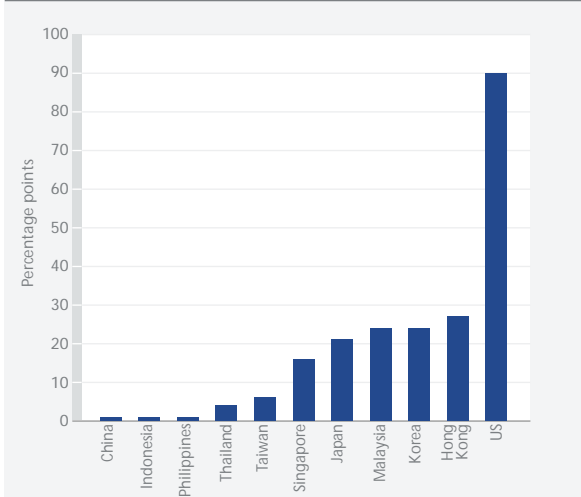
²⁰ Source: *Japanese Government Bonds-Quarterly Newsletter*, The Ministry of Finance of Japan, June 2000.

²¹ Source: *Quarterly Review: International Banking and Financial Market Developments*, Bank for International Settlements, 2000.

Cross-country comparisons

The depth of Malaysia's corporate bond market, in terms of the outstanding value as a percentage of nominal GDP, is comparable to that of several major north-east Asian markets such as Japan, Korea and Hong Kong, and greater than those of Taiwan, Singapore and Thailand (Figure 44).²² At the end of 1999, the total value of corporate bonds outstanding in Malaysia was 24% of nominal GDP. However, on the whole, the depth of Far East Markets is still less than that of US corporate bond market, which is around three times of Hong Kong's.

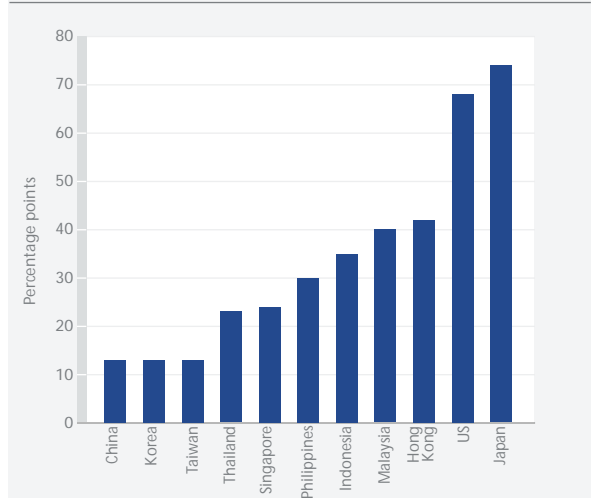
Figure 44
Corporate bonds outstanding relative to nominal GDP as at end-1999



Sources: McKinsey & Company; Bank Negara Malaysia; Rating Agency of Malaysia; Bank of Korea; Ministry of Finance and Economy, Korea; Monetary Authority of Singapore; Hong Kong Monetary Authority; Bank of Thailand; Thai Bond Dealing Centre; The Bond Market Association
Note: Data for local-currency bonds only

The size of the Malaysian government bond market relative to nominal GDP is comparable to Hong Kong and larger than most Far East ex-Japan markets (Figure 45). At the end of 1999, the total amount of government bonds outstanding as a percentage of nominal GDP in Malaysia was about 40%.

Figure 45
Government bonds outstanding as a percentage of nominal GDP as at end-1999



Sources: McKinsey & Company; Bank Negara Malaysia; Rating Agency of Malaysia; Bank of Korea; Ministry of Finance and Economy, Korea; Monetary Authority of Singapore; Hong Kong Monetary Authority; Bank of Thailand; Thai Bond Dealing Centre; The Bond Market Association
Notes: Government bonds include quasi government bonds
Data for local-currency bonds only

²² This analysis is based on data for local-currency bonds only.

DERIVATIVES MARKET

The Malaysian derivatives industry consists of the following components: exchange-traded derivatives and OTC derivatives. For the purposes of the Masterplan, all references to derivatives and futures refer to exchange-traded futures and options, consistent with the definition of a “futures contract” under the Futures Industry Act 1993 (FIA).²³

Background

Until recently, the derivatives market in Malaysia was confined to commodity derivatives traded on the former KLCE, which was established in 1980.

A viability study conducted by the International Monetary Fund (IMF) for BNM in 1990 identified the need for some form of financial risk management tool in the face of increasing volatility in the financial markets. This led to a series of regulatory infrastructure reforms to pave the way for the establishment of Malaysia’s first financial derivatives exchange. In August 1995, KLOFFE invited members of the corporate sector to apply for trading memberships. Out of the 81 applications received, 40 were chosen to join KLOFFE as trading members. KLOFFE was officially licensed as a futures and options exchange on 11 December 1995, and trading in its flagship stock index futures began four days later.

While KLCE had the facilities to allow for the trading of financial futures, the regulatory framework at that time necessitated the setting up of a subsidiary due to the different regulatory jurisdictions for commodity and financial futures (Figure 46). On 19 August 1992, KLCE incorporated a wholly-owned subsidiary called the Kuala Lumpur Futures Market (KLFM), which was later renamed the Malaysian

Monetary Exchange (MME) in mid-1995. However, at that point, no contracts had yet been traded on the nascent exchange. In May 1996, the Minister of Finance approved the establishment and operation of MME as a futures and options exchange company, and the 3-month Kuala Lumpur Interbank Offered Rate (KLIBOR) futures contract was launched.

In 1995, an agreement was signed between KLOFFE and MME to jointly set up a clearing house in the form of MDCH. The MDCH and MFCC were later merged in December 1997, thus centralising the clearing function for KLCE, KLOFFE and MME under a common clearing institution.

The later part of the 1990s saw further consolidation within the Malaysian derivatives industry. In December 1998, KLCE and MME were merged to establish COMMEX. Shortly after, in January 1999, the KLSE acquired KLOFFE Capital Sdn Bhd, KLOFFE’s holding company.

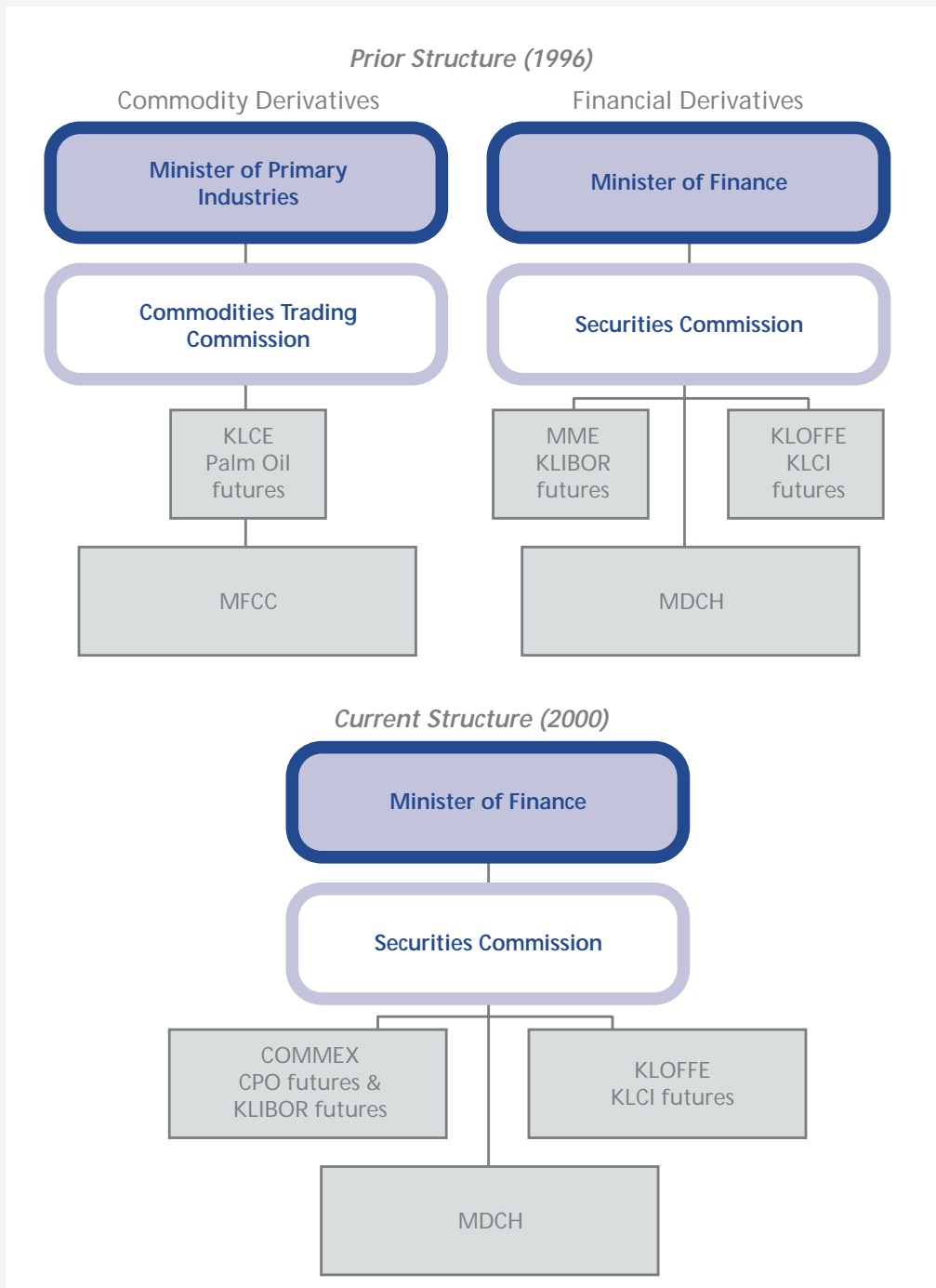
As of end-September 2000, only three futures contracts are actively traded: crude palm oil (CPO) futures and 3-month Kuala Lumpur Interbank Offered Rate (KLIBOR) futures on COMMEX, and KLSE Composite Index (KLCI) futures on KLOFFE.²⁴ Futures contracts on other commodities such as rubber, tin (1987), cocoa (1988), palm olein (1990) and crude palm kernel (1992) had been introduced by KLCE in the past. However, of these, the CPO futures remains the only active contract at present.

In December 1995, regulations on securities borrowing and lending (SBL) were introduced, while regulated short selling (RSS) was allowed from September 1996 onwards. However, both SBL and RSS were suspended in 1997 during the regional financial crisis. The profits and principal from trading in derivative contracts are, however, exempted from any exit levy.

²³ The FIA defines a “futures contract” as: (i) an agreement that is, or has at any time been, an eligible delivery agreement or adjustment agreement; (ii) a futures option; (iii) an eligible exchange-traded option; or (iv) any other agreement, or any other agreement in a class of agreements, prescribed to be a futures contract under Section 2B of the Act. However, the definition does not include instruments such as currency and interest rate swaps, forward exchange rate and forward interest rate contracts, and agreements that are prescribed not to be futures contracts or prescribed not to be traded on a futures market.

²⁴ In addition, KLCI options were introduced in December 2000.

Figure 46
Prior and current regulatory structures of the Malaysian derivatives market



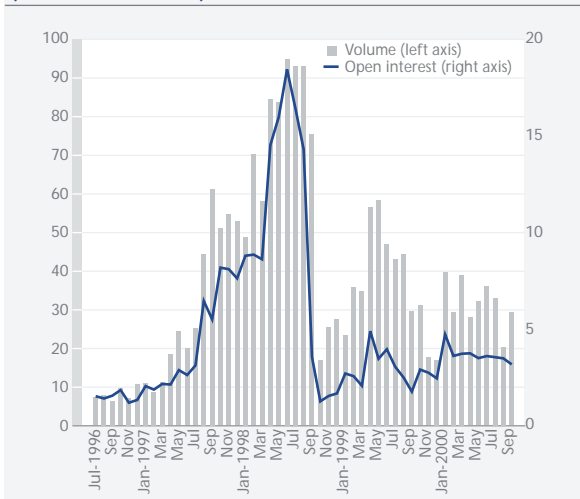
Source: Securities Commission
 Note: KLOFFE also introduced KLCI options in December 2000

Domestic Overview

Liquidity

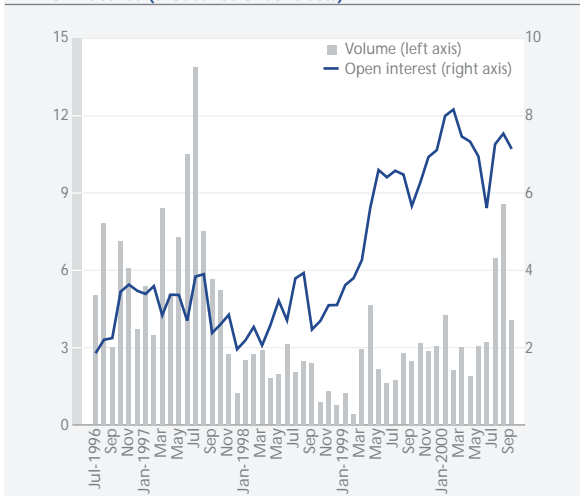
Liquidity in the local derivatives market has been generally lacklustre, except for increased activity in KLCI futures in 1997-98 and KLIBOR futures in 1997 (Figure 47 and Figure 48). CPO futures persistently displayed weak trading activity from July 1996 to September 2000 (Figure 49). In September 1998, the imposition of exchange control measures in Malaysia saw wide ranging implications for the local financial industry, with the derivatives market being one of the most severely affected.

Figure 47
Monthly trading volume and month-end open interest on KLCI futures (thousands of contracts)



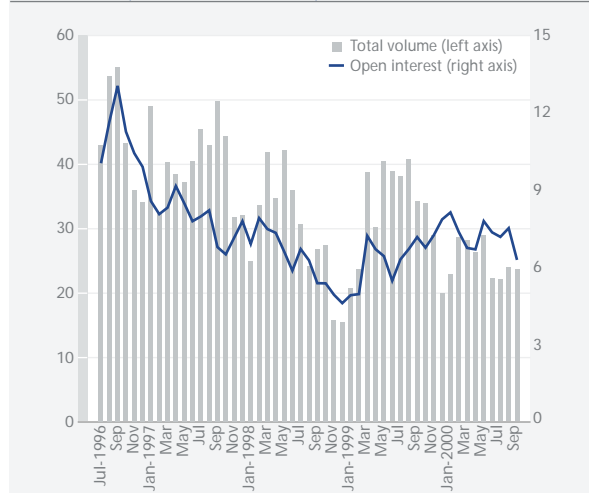
Source: Securities Commission

Figure 48
Monthly trading volume and month-end open interest on KLIBOR futures (thousands of contracts)



Source: Securities Commission

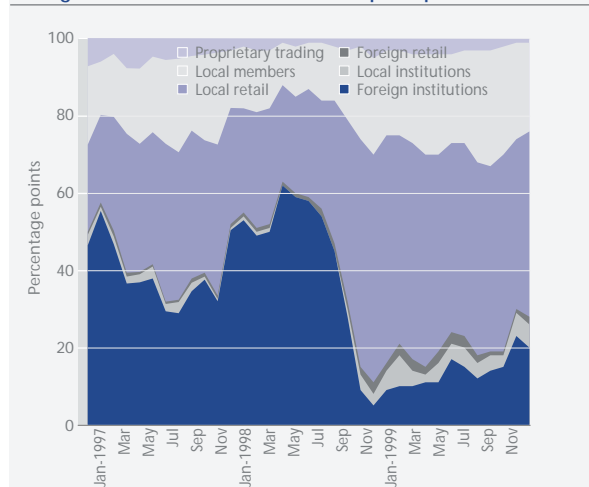
Figure 49
Monthly trading volume and month-end open interest on CPO futures (thousands of contracts)



Source: Securities Commission

The drop in liquidity since then has been especially marked for KLCI futures, a fact attributable to the high levels of foreign participation in KLOFFE at that time, and their subsequent withdrawal following the imposition of selected exchange controls and the repatriation levy in the underlying cash market (Figure 50). The average daily volume at the exchange stood at 1,872 contracts in July 1999, compared to 4,311 contracts in June 1998. The derivatives liquidity ratio, representing the ratio of the turnover value of the futures to the turnover value of the component stocks, also fell from 119% in June 1998 to 23% in July 1999.

Figure 50
Changes in market share of KLCI futures participants



Sources: Kuala Lumpur Options and Financial Futures Exchange; Securities Commission

Futures market intermediaries

Table 17 shows the change in the number of licensed persons under the FIA from 1996–99. It can be seen that, while the numbers of licensed individuals have increased gradually over this period—most markedly in 1997, when the futures markets registered their highest volumes to date—the number of futures broking firms have actually declined since 1997.

Table 17
Statistics on licensed and registered persons under the FIA

Categories	1996	1997	1998	1999
Futures brokers	38	57	44	38
Futures brokers representatives	288	693	732	745
Local members	53	118	128	145

Source: Securities Commission

Note: Some futures brokers are members of both KLOFFE and COMMEX

The FIA was amended in October 1998 to allow the participation of asset managers and unit trusts in the futures industry. In tandem, the SC also issued guidelines for the licensing of futures fund managers and futures fund managers' representatives. This paved the way for asset managers to obtain futures fund managers' licenses and trade in futures contracts. In addition to this, unit trust companies were exempted from licensing requirements under the Act, and allowed to trade in futures contracts.

In relation to equity ownership, futures market intermediaries in Malaysia are predominantly controlled by domestic parties. As at end-September 2000, COMMEX had 22 member companies, of which three are foreign-owned and 19 are locally-owned. While KLOFFE had 25 member companies, of which only one is foreign-owned.

International Landscape

The influence of technology and innovation has been apparent in the development of the international derivatives industry, thanks in no small part to the ease with which derivatives contracts can be created and replicated.²⁵ The growth of global activity in derivatives is also due to increasing awareness among portfolio investors that derivatives facilitate exposure to the underlying markets.

Thus, competition for business among derivatives exchanges worldwide has increased in intensity. Certain developments that have potentially significant implications for Malaysia's own derivatives industry include:

- Growth in overall volume and value of derivatives transactions worldwide
- Heightened competition for exchange-traded business through reduced transaction costs
- Mergers and alliances among derivatives exchanges, and between derivatives and stock exchanges (Table 3 and Table 4)
- Liberalisation of futures participation restrictions
- Increasing number of derivatives products offered by exchanges

Liquidity

A review of the overall activity levels in global derivatives exchanges shows that Malaysian derivatives exchanges have remained steadily at the lowest 15% of global derivatives exchanges, in terms of number of contracts traded (Table 18). This is significantly below the levels of derivatives business transacted on other regional exchanges such as the Korea Stock Exchange (KSE), Singapore International Monetary Exchange (SIMEX, now SGX-Derivatives Trading Ltd. [SGX-DT]) and Hong Kong Futures Exchange (HKFE, now a subsidiary of Hong Kong Exchange and Clearing Ltd.) which were ranked 7th, 13th and 27th respectively in 1999. By contrast, KLOFFE and COMMEX were ranked 52nd and 53rd respectively, out of a field of 59 exchanges.

²⁵ With derivatives, product origination is not necessarily contingent on having access to the actual underlying asset.

Table 18

Volumes on global futures and options exchanges (by number of contracts traded)

Rank			Exchange	1999 volume ('000)	Year-on-year (%)
1999	1998	1997			
1	4	5	Eurex, Germany and Switzerland	313,955	67.7
2	1	1	Chicago Board of Trade, US	254,561	(9.5)
3	2	3	Chicago Mercantile Exchange, US	200,737	(11.4)
4	3	2	London International Financial Futures and Options Exchange, UK	116,439	(39.1)
5	5	6	New York Mercantile Exchange, US	109,539	15.3
6	14	23	Le Marche des Options Negociables de Paris (MONEP), France	109,2349	347.2
7	9	25	Korea Stock Exchange	97,1379	93.5
8	8	9	London Metal Exchange, UK	61,598	16.1
9	7	7	Chicago Board Options Exchange, US	56,270	(17.7)
10	6	4	Bolsa de Mercadorias & Futuros (BM&F), Brazil	55,931	(35.7)
11	10	10	Tokyo Commodity Exchange (TOCOM), Japan	44,442	11.1
12	12	11	Sydney Futures Exchange (SFE), Australia	29,785	(0.5)
13	13	15	Singapore International Monetary Exchange	25,863	(7.2)
14	15	16	OM Stockholm Exchange, Sweden	25,669	8.9
15	17	N/A	New York Board of Trade, US	21,478	0.8
16	20	22	South African Futures Exchange, South Africa	18,601	15.4
17	22	12	Tokyo Grain Exchange (TGE), Japan	18,393	19.3
18	18	18	International Petroleum Exchange, UK	17,465	(10.1)
19	23	19	Osaka Securities Exchange (OSE), Japan	16,295	8.9
20	16	14	Tokyo International Financial Futures Exchange (TIFFE), Japan	14,930	(31.2)
21	21	17	Tokyo Stock Exchange, Japan	14,163	(9.0)
22	11	8	Marche A Terme d' Instruments Financiers (MATIF), France	9,589	(73.1)
23	24	21	Amsterdam Exchanges, Netherlands	8,778	(27.0)
24	26	30	Montreal Exchange, Canada	8,153	(8.6)
25	29	31	Italian Derivatives Market of the Italian Stock Exchange	7,336	(2.8)
26	41	40	Belgian Futures and Options Exchange	6,882	280.2
27	27	24	Hong Kong Futures Exchange	6,326	(25.5)
28	25	26	MEFF Renta Variable, Spain	5,963	(42.2)
29	30	37	Osaka Mercantile Exchange, Japan	5,353	1.7
30	32	29	Kanmon Commodity Exchange, Japan	4,694	26.0
31	31	33	Philadelphia Stock Exchange, US	4,016	(19.1)
32	19	13	MEFF RENTA FIJA, Spain	3,643	(80.7)
33	34	46	Shanghai Metal Exchange, China	3,134	(2.8)
34	33	34	American Stock Exchange	2,831	(15.0)
35	38	39	Kansas City Board of Trade, US	2,524	10.7
36	36	32	Kansai Agricultural Commodity Exchange, Japan	2,473	(14.4)
37	35	36	MidAmerica Commodity Exchange, US	2,453	(21.1)
38	40	42	Winnipeg Commodity Exchange, Canada	2,153	3.0
39	44	48	Oslo Stock Exchange, Norway	1,854	41.5
40	37	45	Budapest Stock Exchange, Hungary	1,633	(40.0)
41	28	28	Budapest Commodity Exchange, Hungary	1,594	(81.2)
42	52	54	Futures and Option (FUTOP) Clearing Centre, Denmark	1,3967	210.9
43	39	N/A	Helsinki Exchanges, Finland	1,372	(35.3)
44	47	41	Chubu Commodity Exchange, Japan	1,327	17.3
45	42	44	Wiener Borse-Derivatives Market of Vienna, Austria	1,230	(30.5)
46	46	50	Minneapolis Grain Exchange, US	1,189	1.7
47	54	N/A	Taiwan Futures Exchange (TAIFEX), Taiwan	1,078	287.8
48	48	47	Yokohama Commodity Exchange, Japan	896	0.4
49	45	49	New Zealand Futures & Options Exchange (NZFOE)	837	(34.1)
50	49	53	Toronto Futures Exchange, Canada	633	(25.2)
51	59	N/A	Cantor Exchange, US	438	N/A
52	50	55	KLOFFE, Malaysia	437	(43.2)
53	53	52	COMMEX, Malaysia	417	17.9
54	55	56	Mercado a Termino de Buenos Aires, Argentina	232	16.0
55	43	38	Mercato Italiano dei Futures, Italy	210	(85.5)
56	56	57	Agricultural Futures Markets of Amsterdam, Netherlands	123	(31.5)
57	57	58	Pacific Stock Exchange, US	61	(25.7)
58	58	59	Philadelphia Board of Trade, US	0.3	(90)
59	51	43	Beijing Commodity Exchange, China	0	(100)

Source: Futures Industry Association

Note: Total volume excludes futures and options on individual equities

It should be noted, however, that size (or rather the lack thereof) seems to be a prevailing factor among the equity derivative products on the most-improved-liquidity list (Table 19). The contract with the most improved liquidity, MONEP's CAC 40 options contract, was reduced in 1999 to a tenth of its previous size. If readjusted to 1998 terms, it would register just a tripling of volume rather than a thirty-fold increase. The KOSPI 200 options are one-fifth the size of the underlying futures contract. In both cases, it may be argued that the small contract sizes have allowed for large increases in the trading volume without necessarily entailing a proportionate effect on the overall value traded.

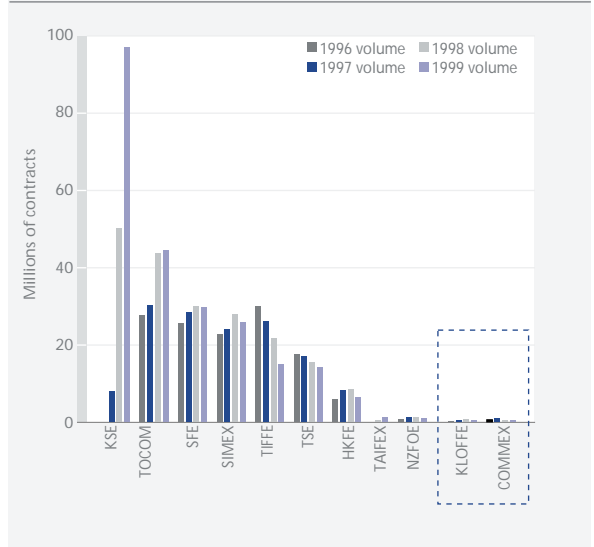
Table 19
Individual contract with the largest absolute changes in volumes in 1999

Rank	Contract	Exchange	1999 volume (million contracts)	% change
1	CAC 40 Index long term options (on futures)	MONEP	75.7 (+72.9)	2,648
2	KOSPI 200 Options (on futures)	KSE	79.9 (+47.6)	147
3	Crude oil futures	NYMEX	37.9 (+7.4)	24
4	Gold futures	TOCOM	16.0 (+6.6)	71
5	e-Mini S&P futures	CME	11.0 (+6.5)	145

Source: Futures Industry Association
Note: Excluding futures and options on individual equities

Nevertheless, a comparison of trading volumes on major regional derivatives exchanges (Figure 51) shows that KLOFFE and COMMEX have consistently remained at the lower end of the liquidity spectrum over the past three years, even lagging behind the Taiwan Futures Exchange (TAIFEX)—which was only established in 1997—in 1999.

Figure 51
Volumes in major Asia-Pacific derivatives exchanges (by number of contracts traded)



Sources: Futures Industry Association; Securities Commission
Note: Total volumes do not include futures or options on individual equities

Product base in international derivatives exchanges

The number of products traded on various international exchanges are presented in Table 20.

Table 20
Number of products traded on selected international exchanges

Exchange	No. of products	Date of exchange establishment
HKFE	28	1986
SFE	22	1960
TGE	10	1952
OSE	10	1949
TSE	10	1949
NZFOE	8	1985
TOCOM	7	1984
SIMEX (SGX-DT)	6	1984
TIFFE	4	1989
SHFE	4	1999
TAIFEX	3	1997
KSE	2	1956 ^a
COMMEX	2	1980 ^b
KLOFFE	1 ^c	1995

Sources: Futures Industry Association; respective exchanges; Securities Commission

Notes: a) Derivatives trading on the KSE only began in 1996
b) KLCE, established in 1980, was merged with MME to become COMMEX in 1998
c) KLCI options were introduced in December 2000

Futures transaction costs

Table 21 and Table 22 compare the costs involved in trading futures contracts in Malaysia, vis-à-vis selected regional exchanges.

Table 21

Futures transaction costs in Malaysia

Fees	Exchange/contract
Exchange fee Clearing fee Brokerage commission	KLOFFE <i>KLCI futures (KLCI x RM100)</i>
	RM9 per contract
	RM1 per contract
	RM50 per contract (minimum) but can be discounted for clients with: 2,001-5,000 contracts per month: RM45 Over 5,001 contracts per month: RM40
Exchange levy Clearing levy Brokerage commission	COMMEX <i>KLIBOR futures (Principal contract value of RM1million with 3-month maturity, with interest calculated at the implied rate)</i>
	RM2 per contract
	RM1 per contract
	Broker-determined, maximum RM15
Exchange levy Clearing levy Brokerage commission	<i>CPO futures (25 tonnes quoted at RM/tonne)</i>
	RM3 per contract
	RM1 per contract
	Round-turns at minimum of: Day trades—RM26.50 (RM51.50 for non-members, negotiable to RM29.50) Overnight trades—RM53 (RM103 for non-members, negotiable to RM59)

Sources: Kuala Lumpur Options and Financial Futures Exchange; Commodity and Monetary Exchange of Malaysia; Securities Commission

Notes: a) Fees cited on per leg basis except where otherwise indicated

b) Futures brokers representatives' and futures brokers' commission-sharing ratio for KLOFFE contracts is currently at 40:60, the same as for stockbroking companies and remisiers

Table 22

Comparison of futures transaction costs for selected contracts

Exchange	Fees
SGX-DT	For MSCI Singapore Index Futures: Commissions are negotiable Clearing fees are S\$2 per contract (for retail and institutional) and S\$1 per contract (for SGX-DT members)
HKFE	Minimum brokerage commissions will be fully liberalised effective 1 April 2002 Transactions on new products under the Nasdaq-AMEX programme and similar pilot programmes before 1 April 2002 will be immediately exempted from the minimum brokerage rules Current fees for HSI futures: Exchange fee=HK\$10; SFC levy=HK\$1; Compensation fund levy=HK\$0.50; Total=HK\$11.50 per contract per leg. Minimum brokerage commissions=HK\$60 per contract per side for day trades, HK\$100 per contract per leg for overnight trades
KSE	For KOSPI 200 index futures: Brokerage commissions are negotiable Exchange fee: 0.08/10,000 of trade amount
TAIFEX	For TAIEX index futures: Transaction tax: 0.025% of contract value (round-turn, per contract) effective 1 May 2000 Brokerage commission: NT\$2,400 (round-turn, per contract)

Sources: Respective exchanges

Regulations on securities borrowing and lending and short selling

In general, short selling (which in practice requires the ability to borrow and lend securities) facilitates the efficient pricing of derivatives by permitting two-way arbitrage and ensuring that derivative prices do not diverge too greatly from the underlying cash markets in the event they fall below their fair values. Without the ability to short sell, markets in certain instruments, such as equity options, cannot operate efficiently and effectively, and will find it very difficult to establish a critical mass of liquidity. Most countries within the region also have short selling provisions (Table 23).

Table 23

Short selling practices in selected jurisdictions

	Australia	Hong Kong	India (Bombay)	Indonesia	Malaysia	Philippines	Singapore	Taiwan	Thailand
Short selling provisions	Yes	Yes	Yes	Yes	Yes ^a	Yes	Yes	Yes ^b	Yes

Sources: *Nomura Asia Pacific Market Guide 2000*, Securities Commission; Taiwan Stock Exchange

- Notes: a) Short selling was suspended in 1997 during the regional financial crisis
 b) Short selling is not allowed for qualified foreign institutional investors, local dealers and investment trust companies

ISLAMIC CAPITAL MARKET

The Islamic capital market refers to the market where capital market activities are carried out in ways that do not conflict with the conscience of Muslims and the religion of Islam. It encompasses capital market transactions that are free from any association with activities and elements prohibited by Islam such as usury (*riba*), gambling (*maisir*) and ambiguity (*gharar*). The basic framework for an Islamic financial system is a set of rules and laws collectively referred to as the *Syariah* which governs the economic, social, political and cultural aspects of Islamic societies. Investors in Islamic capital market instruments are not necessarily restricted to Muslims.

Background

The Malaysian Islamic capital market functions as a parallel market to the conventional capital market. It complements the Islamic banking and *Takaful* systems in broadening and deepening the Islamic financial sector. Currently, the main products available in the Malaysian Islamic capital market are equity instruments and equity-based derivatives, debt securities and managed funds. The domestic Islamic capital market leverages on the strengths of the infrastructure within the conventional capital market. There are specialist Islamic financial institutions as well as conventional financial institutions that offer Islamic financial products or services. Table 24 provides a historical overview of important developments for the domestic Islamic capital market.

Table 24
Critical milestones in the development of the Islamic capital market in Malaysia

Year	Critical milestone
1990	Shell MDS Sdn Bhd issues the first Islamic PDS.
1993	Arab Malaysian Unit Trust Berhad issues the first Islamic equity unit trust fund (Arab-Malaysian Tabung Ittikal).
1994	BIMB Securities Sdn Bhd, the first full-fledged Islamic stockbroking company, is established.
1995	SC establishes the Islamic Capital Market Unit which comprises researchers trained in both <i>fiqh muamalat</i> and capital market practices to undertake research in product origination and Islamic capital market operations.
1996	SC establishes the Syariah Advisory Council (SAC). The SAC, which comprises <i>muftis</i> , Islamic scholars, academicians and Islamic finance experts, advises SC on Syariah compliance matters for Islamic capital market activities. Rashid Hussain Bhd (RHB) launches the country's first Islamic equity index, comprising the shares of KLSE Main Board companies whose core businesses are consistent with Islamic principles, as identified by RHB's investment panel.
1997	Khazanah Nasional Berhad launches the Khazanah Murabahah Bond, which is a zero coupon bond based on <i>Murabahah</i> and <i>Bai' Dayn</i> concepts. This is a government initiative to provide an alternative benchmark security for the domestic bond market. SC introduces an official list of Syariah-approved securities traded on KLSE (presently, it also includes securities traded on MESDAQ). ^a SC's criteria for Syariah-approved securities are based on the nature of the core activities of the particular company. Since April 2000, this list is updated twice a year, in April and October.
1999	KLSE launches the country's second Islamic equity index, the KLSE Syariah Index. The index includes all Main Board shares that are on SC's list of Syariah-approved securities and provides a benchmark for the performance of these securities. PUNB announces its intention to set up Islamic-based venture capital (referred to as the New Financial Model). It aims to employ an array of Islamic economic principles, namely <i>Musyarakah</i> (partnership or joint venture), <i>Musyarakah Mutanaqisah</i> (diminishing partnership), <i>Ijarah</i> (leasing facility), <i>Murabahah</i> (deferred payment sales) and <i>Istisna</i> (deferred delivery sales), for disbursement of funds to investee companies. PUNB plans to finance its venture via the issuance of Islamic bonds.

Source: Securities Commission

Note: a) Essentially, securities of companies involved in the following operations are considered as non-Syariah compliant:

- Operations based on *riba* (interest) including activities undertaken by financial institutions such as commercial and merchant banks, finance companies and stockbroking businesses
- Operations involving gaming and gambling
- Operations involving the manufacture and /or sale of haram (forbidden) products such as liquor, pork and meat not slaughtered according to Islamic principles
- Activities containing element of *gharar* (uncertainty) such as those undertaken by conventional insurance businesses

Domestic Overview

Equity and equity indices

Table 25 shows approximately three quarter of the stocks on the KLSE and MESDAQ collectively are Syariah-compliant as at end-September 2000.

Table 25
Number and percentage of Syariah-approved counters

Year	Number of Syariah approved counters on the KLSE and MESDAQ	Number of counters on the KLSE and MESDAQ	Percentage of Syariah-approved counters relative to total KLSE and MESDAQ counters (%)
1997	476	708	67
1998	542	736	74
1999	545	758	72
End-Sept 2000	566	790	72

Sources: Securities Commission; Kuala Lumpur Stock Exchange

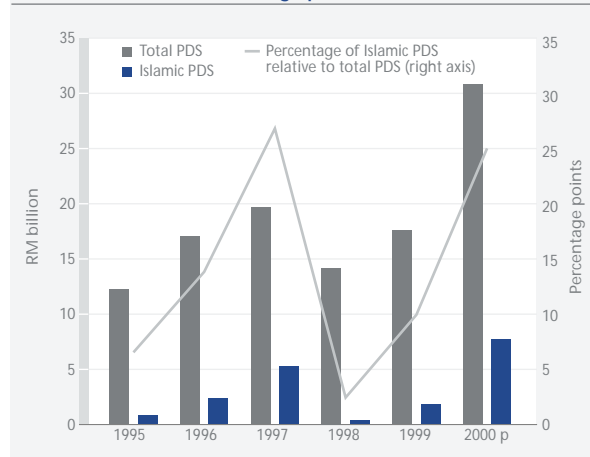
A few specialised Islamic stockbroking companies currently operate in the market, while certain conventional stockbroking companies have dedicated business units to provide Islamic broking services.

Islamic debt securities

In general, there are three broad categories of Islamic PDS that can cater to various financing objectives and cashflow needs of issuers. There are long-term Islamic debt securities of more than five years, medium-term notes of two to five years and short-term commercial papers of one to 12 months. Most financing deals have been structured along the concepts of *Murabahah*, *Ijarah* and *Bai` Bithaman Ajil*. The Islamic debts or assets are then securitised to enable the investors or subscribers to trade the securities in the secondary market.

Many large domestic companies, such as Petronas, Tenaga and Telekom, have sought financing through the issue of long-term Islamic corporate bonds. The first long-term debt security with floating rate characteristics is Segari Energy Venture Sdn Bhd's *Sukuk Ijarah* Notes Issuance Facility, which raised RM521.5 million in 1997. Historically, there have been few new issues of Islamic PDS except in 1996, 1997 and 2000 (Figure 52). The sharp increase in funds raised through Islamic debt securities during 1996–97 was due to the issuance of the Kuala Lumpur International Airport (KLIA) bonds amounting to RM4.4 billion under a Bai` Bithaman Ajil transaction. Comparing data for 1999 and 2000, it is seen that there has been an increase in the percentage of funds raised through Islamic debt securities relative to total debt securities.

Figure 52
Amount of funds raised through private debt securities



Source: Bank Negara Malaysia

Note: Excludes bonds issued by the banking institutions

*p-preliminary

In addition to the issuance of Islamic debt securities by the private sector, the Malaysian government has issued government investment issues based on *Qardhul Hasan* transactions to provide liquidity and to facilitate asset management within the Islamic banking system. Cagamas has issued *Mudharabah* bonds to finance the purchase of Islamic house financing debts based on Bai` Bithaman Ajil transactions.

Islamic funds

Table 26 provides a list of Islamic unit trust funds in Malaysia as at end-September 2000. The table shows that 13 of the 14 unit trust funds are equity-based.

Table 26
Islamic unit trust funds and fund management companies

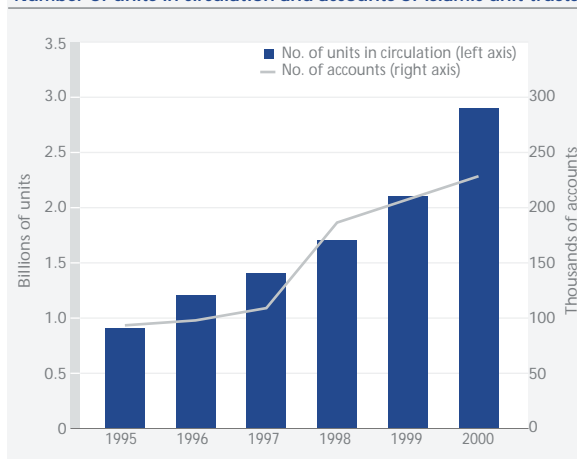
Islamic unit trust fund managed	Management company
Abrar Investment Fund	Abrar Unit Trust Management Bhd
Amanah Saham Kedah	Amanah Saham Kedah Bhd
Arab-Malaysian Tabung Ittikal	Arab-Malaysian Unit Trust Management Bhd
Tabung Amanah Bakti	Asia Unit Trusts Bhd
Dana Al-Aiman	ASM Mara Unit Trust Management Bhd
Amanah Saham Bank Islam (Tabung Pertama)	BIMB Unit Trust Management Bhd
BBMB Dana Putra	BBMB Unit Trust Management Bhd
BHLB Pacific Dana Al-Ihsan	BHLB Pacific Trust Management Bhd
Amanah Saham Wanita	Hijrah Unit Trust Management Bhd
Kuala Lumpur Ittikal Fund	KL Mutual Fund Bhd
Pacific Dana Aman	Pacific Mutual Fund Bhd
Amanah Saham Darul Iman	PTB Unit Trust Bhd
RHB Mudharabah Fund	RHB Unit Trust Management Bhd
RHB Islamic Bond Fund	RHB Unit Trust Management Bhd

Source: Securities Commission

Note: All the aforementioned funds are Islamic equity funds except for the RHB Islamic Bond Fund

The size of the Islamic unit trust industry is small vis-à-vis the unit trust industry as a whole as evidenced by the comparatively low net asset value (NAV) of the Islamic unit trusts. As at end-September 2000, the NAV of Islamic unit trusts amounted to RM1.7 billion (end-1999: RM1.4 billion) or 3.6% (end-1999: 3.2%) of the total NAV of the industry. The growth in investment in Islamic unit trusts is illustrated in terms of the number of units in circulation and number of accounts in Figure 53. The number of units in circulation in the Islamic unit trust market grew at a compounded annual growth rate (CAGR) of approximately 34% whilst the number of units in the unit trust industry grew at 13% from 1995 to 1999. The total number of accounts of Islamic unit trusts grew at a CAGR of 25% compared to 7% for the unit trust industry during the same period.²⁶

Figure 53
Number of units in circulation and accounts of Islamic unit trusts



Source: Securities Commission

Note: 2000 data is as at end-September

Apart from unit trust management companies which offer Islamic unit trust funds, there are three specialist Islamic asset management companies in Malaysia. They are Metrowangsa Asset Management Sdn Bhd, BIMBSEC Asset Management Sdn Bhd and Perdana Technology Venture.

Derivatives

Currently, Syariah-approved derivative products are limited to call warrants, transferable subscription rights (TSR) and CPO futures. The SC's Syariah Advisory Council (SAC) also takes the view that the structure and trading mechanism of stock index futures contracts fulfill Syariah principles, with the condition that the underlying asset is Syariah-compliant.

Growth in domestic Islamic funds

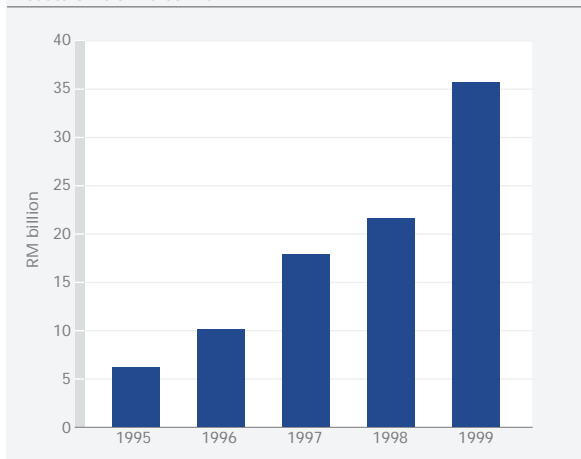
In Malaysia, major pools of Islamic funds are mobilised through the Islamic banking sector, Takaful industry and various Muslim savings vehicles such as the Lembaga Tabung Haji (LTH) or the Pilgrims Fund Board. These sectors have been growing rapidly for the past five years. The size of the assets and deposits that are held by these sectors provides an indication of the magnitude of funds available for investment in the Islamic capital market.

²⁶ Source: Securities Commission.

Islamic banking

The deposits of the Islamic banking sector have grown from RM4.9 billion in 1995 to RM24.7 billion in 1999. Although the total assets in the Islamic banking sector is a small percentage of total banking assets (1999: 4%), these assets have grown from RM6.2 billion in 1995 to RM35.7 billion in 1999 (Figure 54).²⁷ Over the same period, the CAGR of the total assets of the Islamic banking sector (55%) is slightly more than double the CAGR for the overall banking sector (21%).²⁸

Figure 54
Assets of Islamic banks

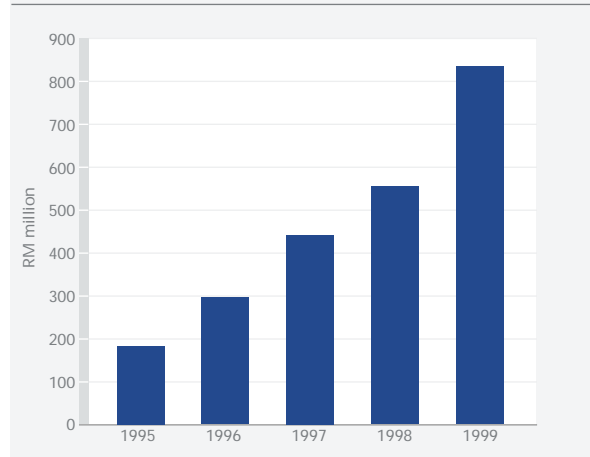


Source: Bank Negara Malaysia

Takaful industry

The total assets of Takaful funds account for a relatively low percentage of the total assets of insurance funds (1999: 2.2%).²⁹ The assets of the Takaful business have increased from RM183.3 million in 1995 to RM834.4 million in 1999 (Figure 55), with a high CAGR of 46%, despite the economic crisis.³⁰ The higher growth in assets in 1999 was partly due to large write backs of provisions for diminution in the value of investment following the improved performance of the stock market during the year.³¹

Figure 55
Assets of Takaful funds



Source: 15th Annual Report of the Director General of Takaful 1999

Figure 56 illustrates the type of investments held by the Takaful funds from 1995–99. During this period, investment accounts with Islamic banks and Islamic banking divisions of financial institutions were Takaful's main investment avenue. There has been a significant increase in the proportion of the Takaful industry's investment in corporate/debt securities relative to total investment for 1999, compared to 1998. In 1999, investments in corporate/debt securities and government investment certificates were 22% and 11% respectively (1998: 13% and 20% respectively).³² Owing to the inadequate supply of new issues of government investment certificates in 1999, Takaful operators have been allowed to invest in government guaranteed bonds to comply with the minimum statutory requirement on the holding of government securities.³³

Lembaga Tabung Haji

The resources mobilised by the LTH also experienced positive growth despite the economic crisis (Figure 57). On the average, from 1995 to 1999, total depositors' balances including bonuses accounted for 92% of resources mobilised by LTH. From 1995 to 1999, between 14% to 33% of the resources were invested in quoted shares, whilst the remaining funds were mainly invested in short-term instruments.³⁴

²⁷ Data on the deposits and assets of the Islamic banking sector are obtained from Bank Negara Malaysia.

²⁸ Sources: Bank Negara Malaysia; Securities Commission.

²⁹ Source: 15th Annual Report of the Director General of Takaful 1999.

³⁰ Source: 15th Annual Report of the Director General of Takaful 1999; Securities Commission.

³¹ See footnote 29.

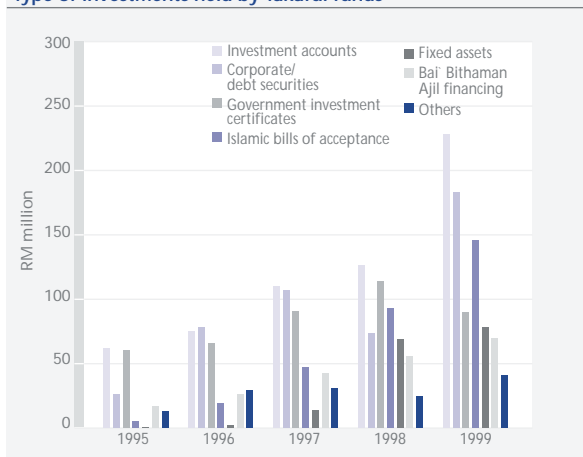
³² See footnote 30.

³³ See footnote 29.

³⁴ See Footnote 28.

Figure 56

Type of investments held by Takaful funds

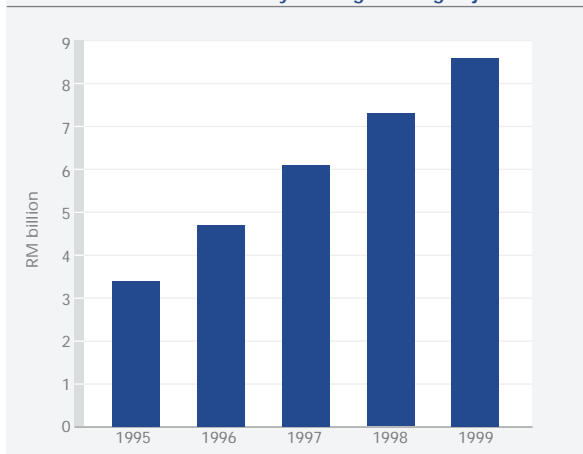


Source: 15th Annual Report of the Director General of Takaful 1999

Note: Other investments comprise unit trusts, cash, deposit and other assets

Figure 57

Value of resources mobilised by Lembaga Tabung Haji



Source: Bank Negara Malaysia

International Landscape

Various attempts have been made to estimate the current and potential size of funds which could be mobilised by the global Islamic financial sector. For example, it is estimated that the Islamic banking sector manages funds of approximately US\$100 billion to US\$150 billion, US\$7 billion worth of capital and assets of more than US\$4,137 billion.³⁵ A forecast suggests that in 8-10 years, at least 40% to 50% of the total savings of Muslims worldwide would be managed by Islamic banks.³⁶ It has also been estimated that approximately US\$800 billion of "latent Islamic capital" belonging to Muslim

individuals and institutions are presently invested in conventional banks throughout the world.³⁷ FTSE and The International Investor Ltd (TII), in a joint-statement during the launch of the FTSE Global Islamic Index Series in London, estimated that the demand for Islamic investment worldwide is growing between 12-15% annually.³⁸

However, despite the attempts to measure the collective pool of Islamic funds globally, the extent to which the funds can be potentially tapped within a particular capital market jurisdiction is, amongst others, determined by its school of Islamic thought.³⁹ The degree of differences and similarities among the various schools of Islamic thought can either pose barriers or opportunities to accessing a particular market.

Equity markets

Table 27 compares the stock exchanges in selected Islamic countries. The table indicates that relative to the exchanges under review, the KLSE has among the most listings as well as the highest market capitalisation and trading value.

Within the Asian region, the screening of stocks for Syariah compliance in the KLSE and the Jakarta Stock Exchange (JSX) is undertaken by a centralised body in their respective jurisdictions, the results of which are disseminated to the public. For example, similar to the functions of the SC's SAC, the Indonesian Council of Islamic Clerics (Majelis Ulama Indonesia) undertakes screening of stocks listed on the JSX which forms the basis for the construction of the Jakarta Islamic Index.⁴⁰ In other countries, such screening services are generally offered by the private sector. In India, for instance, Parsoli Corporation and IBF Net had jointly established the Islamic Equity Research Cell for this purpose in conjunction with the introduction of the country's first Islamic equity index, the Parsoli-IBF Equity Index.⁴¹ In the Middle East, certain financial institutions and investment companies produce their respective lists of Syariah-compliant companies. In addition, both Dow Jones and FTSE have introduced global Islamic indices, complete with a Syariah panel to undertake the screening exercise of stocks which may be included in these indices.⁴²

³⁵ Source: "Islam: The new mover" by Indira Chand, *The Banker*, June 2000.

³⁶ Source: "Islamic Banking: A Brief Introduction to the Industry" by Falaika.

³⁷ Source: Labuan Offshore Financial Services Authority's Annual Report 1999.

³⁸ Source: "Global Islamic indices join the FTSE family", FTSE International, 14 November 1999.

³⁹ There are four schools of Islamic thought, ie, *Hambali*, *Hanafi*, *Maliki* and *Shafie*. In South East Asia, the majority of Muslims follow the Shafie school of thought.

⁴⁰ Source: Jakarta Stock Exchange.

⁴¹ Source: "Parsoli-IBF Equity (PIE) Index", <http://islamic-finance.net/>

⁴² Sources: Dow Jones; FTSE International.

Table 27

Statistics on stock exchanges in selected Islamic countries

As at end-1999	Malaysia	Bahrain	Oman	Kuwait	Saudi Arabia	Pakistan	Egypt
Number of listed companies	757	41	218	82	72	765	1,020
Market capitalisation (US\$ billion)	145.4	7.1	5.9	20.3	60.9	7.1	32.8
Trading value in 1999 (US\$ billion)	48.8	0.4	1.2	6.0	15.1	21.1	9.7

Sources: Kuala Lumpur Stock Exchange; Middle East Capital Group; Karachi Stock Exchange; Bloomberg; Federation Internationale des Bourses de Valeurs

Note: Non-Syariah compliant companies are not excluded from the above

Islamic funds

Total assets worldwide for Islamic equity funds has been estimated to be approximately US\$1.5 billion in 1999.⁴³ It is also estimated that there are approximately 100 Islamic equity funds worldwide.⁴⁴ Table 28 indicates that some countries in Europe and North America collectively have the highest number of companies managing Islamic equity funds whilst most funds are promoted in the Middle East. Malaysia has a relatively high number of Islamic equity funds that are promoted within the country and/or region.

Table 28

Islamic equity funds

Region/country	Number of companies managing Islamic funds in the region/country	Number of funds promoted in the region/country
Middle East	10	43
Europe and North America	34	25
Malaysia	13	13
Asia (ex Malaysia)	4	4
Others	2	1

Sources: Falaika; Securities Commission

- Notes: a) The funds promoted in the respective countries represent the number of Islamic equity funds known to Falaika as at end-September 2000 and it excludes the funds on Falaika's list that are not officially announced yet or if the location of the fund manager is not indicated on Falaika's list
- b) Where the fund is promoted in more than 1 location, the particular fund will be included in all the locations which it is promoted
- c) Similarly, where the management company is located in more than 1 location, the particular company will be included in all its locations in the above
- d) Others consist of South Africa and Egypt

There are other types of Islamic funds besides equity funds such as realty and property funds, commodity funds and trade finance funds, which have been introduced in other countries.⁴⁵

International linkages involving Malaysia

Labuan Offshore Financial Services Authority (LOFSA), the Bahrain Monetary Agency and the Islamic Development Bank have signed a Memorandum of Understanding (MOU) to create an international money market, which is now known as the International Islamic Financial Market (IIFM).⁴⁶ It is intended that the market will operate round-the-clock and is expected to be operational in 2001, potentially mobilising funds amounting to approximately US\$150 billion to US\$170 billion.⁴⁷ Malaysia is expected to spearhead the structural development of a Market Management Centre whilst Bahrain will form a Liquidity Management Centre to support the project.⁴⁸ Other Islamic countries, such as, Indonesia, Brunei Darussalam and Sudan are also participating in this project.⁴⁹

⁴³ Source: "Islamic Equity Funds: A Brief Industry Analysis" by Tariq Al-Rifai, Falaika International Inc., 1 October 1999.

⁴⁴ Source: Falaika.

⁴⁵ Source: "Islamic Investment Funds Unit Prices Universe", *Islamic Banker*, July 2000.

⁴⁶ Source: "Bahrain signs memorandum to create Islamic money market" by Dow Jones Newswires, 2 November 1999.

⁴⁷ Sources: "Labuan IOFC as an offshore centre for Islamic banking and finance" by LOFSA; "IIFM expected to open next year" by Mohd Faizal Zakariah, *Bernama Daily Malaysian News*, 22 November 2000.

⁴⁸ Source: "IIFM expected to open next year" by Mohd Faizal Zakariah, *Bernama Daily Malaysian News*, 22 November 2000.

⁴⁹ See footnote 48.

STOCKBROKING INDUSTRY

Background

The history of stockbroking in Malaysia can be traced back more than 100 years. In the 19th century, early brokers had gathered at colonial clubs and shophouses, in a manner not dissimilar to the early development of the stockbroking industry in England. Share trading companies were soon formed, encouraged by increased trading alongside the boom in the rubber and tin industries. The first formal organisation of stockbrokers was established on 23 June 1930: the Singapore Stockbrokers' Association was formed under the Societies Ordinance of the Straits Settlements (in 1937, the association was re-registered as the Malayan Stockbrokers Association). There were two reasons underpinning the formation of the association. First, the Wall Street crash in 1929 highlighted the need for some regulation of the conduct of stockbrokers. Second, the association provided a means to limit competition from non-British stockbroking firms. Despite the disruption by the Second World War in the 1940s, the association expanded and continued to exist right up to 1960.

1973 saw the introduction of the Securities Industry Act, which, among other things, served as the basis of the legal framework governing stockbroking companies. Before the deregulation efforts undertaken in 1995, however, the number of stockbroking companies was limited to 10. In 1983, the Securities Industry Act was replaced by a new act of the same name. The act passed in 1973—which maintained the licensing requirements for stockbrokers—was part of the major steps taken to improve the stock market and the stockbroking industry. This was followed by the corporatisation of stockbroking companies in 1986 in order to introduce greater professionalism, to improve investment research within the securities industry as well as to improve the financial resilience of the brokerage industry.

In 1990, the minimum paid-up capital requirement of RM20 million was implemented for all stockbroking companies to achieve better capitalisation and stronger financial position for the stockbrokers in view of the growing needs of the securities industry. To further strengthen the industry, the Ministry of Finance (MOF) in 1992 issued a directive requiring that only stockbroking companies with a paid-up capital, unimpaired by losses, of no less than RM20 million would be allowed to provide credit facilities to their clients. On 22 June 1995, the ceiling restriction on the number of listed stockbroking companies was lifted. During this time as well, there was a revamp of the share transaction cost structure, with the implementation of graduated commission rates on KLSE transactions, the revision of stamp duty charges and the reduction of the SC levy. 1995 also saw the release of the *Guidelines on Electronic Client-Ordering System* by KLSE for the benefit of the stockbroking companies.

Work is being undertaken to enhance the client asset protection framework, while prudential regulation for the stockbroking industry was strengthened in 1999, with the coming into effect of the *Capital Adequacy Requirement* (CAR) framework that sought to enable both KLSE and its stockbroking companies to identify more clearly the capital available to cover the risks of running a securities business from the actual level of risk faced by the business at any given point in time.

Domestic Overview

Geographical dispersion

In the early stages of development of the Malaysian stock market, several regulatory measures had been taken to ensure its orderly growth and the availability of stockbroking services for residents in all states. These included a set of licensing rules, which had an impact on the geographical dispersion of Malaysia's stockbroking companies. As a result, stockbroking companies' activities have remained limited geographically. Table 29 shows the number and geographical distribution of stockbroking companies throughout Malaysia.

Table 29
Distribution of stockbroking companies and their branches across Malaysia as at end-September 2000

Location	Number of stockbroking companies / branches
Kuala Lumpur	22
Pulau Pinang	8
Perak	8 ^a
Johor	6
Selangor	5 ^b
Melaka	3
Sarawak	3 ^c
Negeri Sembilan	2
Terengganu	2
Pahang	2 ^d
Kedah	1
Kelantan	1
Labuan	1
Perlis	1
Sabah	1

Source: Securities Commission

- Notes: a) Perak: Includes OSK Securities Ipoh branch
 b) Selangor: Includes Hwang-DBS Securities Shah Alam branch
 c) Sarawak: Includes Sarawak Securities Miri branch
 d) Pahang: Includes Kuala Lumpur City Securities Kuantan branch

Financial profile of the Malaysian stockbroking industry

Stockbroking companies in the Malaysian capital market are generally small- to medium-sized companies of which many are privately owned. Table 30 shows the average shareholders funds figures for selected clusters of stockbroking companies in Malaysia ranked by their shareholders funds. The average shareholders funds of all stockbroking companies in Malaysia stands at under RM200 million as of end-September 2000.

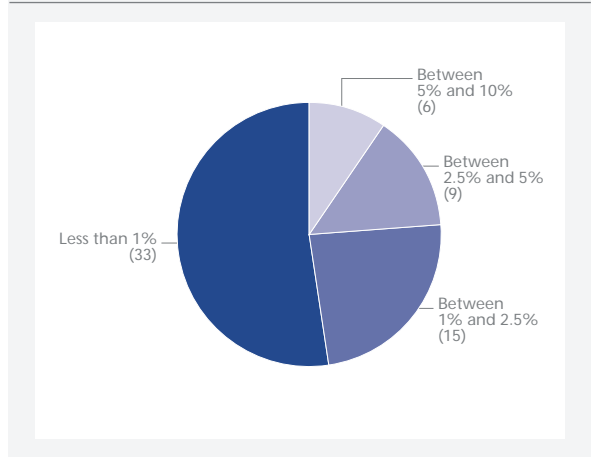
Table 30
Malaysian stockbroking companies: average shareholders funds as at end-September 2000

Stockbroking companies	Average shareholders funds (RM million)
First 10	425
Second 10	230
Remaining 42	91

Source: Securities Commission

Examining available figures for market share and paid-up capital can provide further illustration with regards to the state of the stockbroking industry in Malaysia. Figure 58 and Figure 59 indicate a fairly wide dispersion in the market share and paid-up capital of local stockbroking companies.

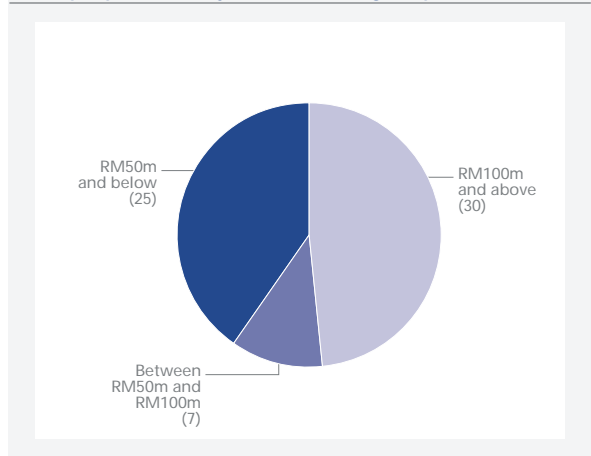
Figure 58
Market share of Malaysian stockbroking companies in October 1999



Source: Kuala Lumpur Stock Exchange

Note: Number of stockbroking companies is in brackets

Figure 59
Paid-up capital of Malaysian stockbroking companies



Source: Securities Commission

Notes: Based on the latest available data as at end-September 2000
 Number of stockbroking companies is in brackets

With regards to stockbroking company ownership, under Malaysia's current commitment to the General Agreement on Trade in Services (GATS), the cap on foreign ownership of local stockbroking companies is set at 49%. Of the 11 stockbroking companies that have foreign equity ownership, four exceed 40%.⁵⁰

⁵⁰ Based on the latest available data as at end-September 2000.

Transaction costs

As of end-June 2000, brokerage commission rates in Malaysia were fixed and followed a system of graduated commissions, which was first implemented in 1995. For instance, the first RM500,000 of a transaction incurred a fixed 1% stockbroker's commission while a rate of 0.75% applied for the next RM1.5 million. All transactions above RM2 million are subject to the lower commission rate of 0.5%.

Apart from brokerage commission, trading on the Malaysian capital market also currently entails various other fees, the details of which are presented in Table 31.

In addition to regulations on brokerage commission rates, Rule 4.8.2 (7) of the *Rules of KLSE* also stipulates that commission earned on trades between remisiers and retail investors should be shared between stockbroking companies and remisiers at a ratio of 60:40 respectively.

Table 31
Components of share transaction costs as at end-June 2000

Cost component	Purpose	Payable by	Payable to	Rates ^a
Brokerage commission ^b	For the execution of sell and buy orders	Investors	Stockbroking companies	Commission rates are charged according to the value of contracts: First RM500,000: 1.0% Next RM1.5 million: 0.75% In excess of RM2 million: 0.5%
Clearing fee ^c	For the clearing and settlement of securities	Investors	SCANS	0.05% Subject to a minimum charge of RM25 and a maximum charge of RM250 in the case of direct business
Stamp duty	Government tax imposed on securities transactions on KLSE	Investors	Government	RM1 per RM1,000 of contract value A ceiling of RM200 applies with regards to transactions between local and foreign brokers
SCORE fee ^d	For the use of the trading system provided by the exchange	Stockbroking companies	KLSE	0.01%
SC levy ^e	Securities regulator fee for regulatory functions	Stockbroking companies SCANS	SC	0.02% whereby 0.01% is payable by brokers, while the other 0.01% is payable by the clearing house
Exit levy ^f	Levy imposed on the repatriation of proceeds from share trading activities	Non-resident investors	Government	10% To be exacted on gains on sales proceeds repatriated by foreign investors Certain securities transactions are, however, exempt from this levy, as specified in BNM's Clarification Notices

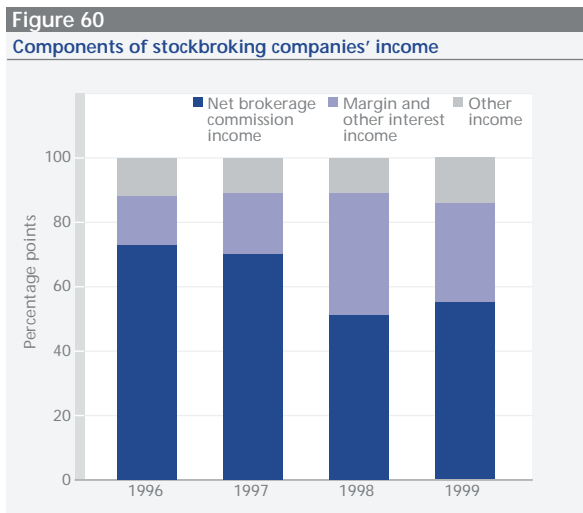
Source: Kuala Lumpur Stock Exchange; Securities Commission

- Notes:
- Unless otherwise stated, all charges are presented as a percentage of transaction value
 - As of 1 September 2000, commission rates for contracts with values above RM100,000 are fully negotiable while a fixed rate of 0.75% still applies for transaction values at or below RM100,000
 - As of 1 July 2001, the clearing fee will be lowered to 0.04%, subject to a maximum of RM200 per contract
 - As of 1 September 2000, SCORE fee has been reduced to 0.005%. Further reduction to 0.0025% has been announced with effect from 1 July 2001
 - With effect from 1 July 2001, the SC levy will be reduced to 0.015%
 - The Budget 2001 abolished the exit levy with regards to foreign funds resident in Malaysia for a period of one year or more

Range of financial services

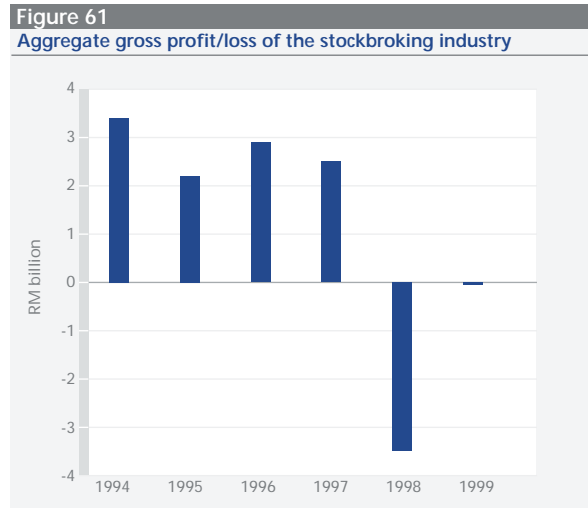
Existing licensing rules in Malaysia also involve certain restrictions with regards to stockbroking companies' activities. Permissible activities for stockbroking companies include trading on the KLSE, providing investment advice, underwriting of new securities issues as well as providing nominee or custodian services.

Available data show brokerage commission as the principal source of income for stockbrokers and this reflects the fact that trade execution in itself constitutes a significant part of many stockbroking companies' activities. Figure 60 shows that while brokerage commissions declined as a percentage of stockbroking companies' income during the crisis years, they still remained a primary source of income for brokerage firms, comprising an average of 55% of stockbrokers' income in 1999.



Sources: Kuala Lumpur Stock Exchange; Arthur Andersen

The analysis of aggregate gross profits/losses of the stockbroking industry reveals a marked volatility (Figure 61). During 1998—the year in which the East Asian crisis was arguably at its peak for Malaysia—brokerage firms recorded huge gross losses.



Sources: Arthur Andersen; Kuala Lumpur Stock Exchange
Note: For the year 1999 the figure indicates net loss before tax

Online broking in the domestic market

The first online trading site by a Malaysian stockbroking company was launched in 1999. Within a year, 13 other Malaysian brokerage firms launched their own online trading services via the Internet.

Malaysia has also seen the emergence of a number of financial portals on the Internet that provide services for investors. These include real-time stock quotes, investment news, investors' forum, research, as well as online trading, which is performed with the collaboration of existing stockbroking companies.

International Landscape

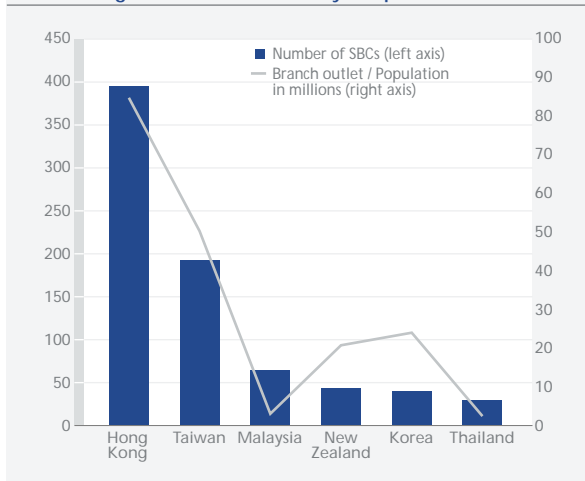
Domestic penetration of stockbroking industry

More stockbroking licences have been granted in Malaysia compared to Korea, New Zealand and Thailand, for instance. The number of licences approved in Taiwan and Hong Kong, on the other hand, are higher than that in Malaysia.

Nevertheless, Figure 62 also shows that higher numbers of licences do not necessarily imply better direct access to stockbroking services, measured by the ratio of the number of branch outlets in relation to population size. Despite having a lower number

of licences than in Malaysia, investors in Korea and New Zealand enjoy higher levels of direct access to stockbroking services.

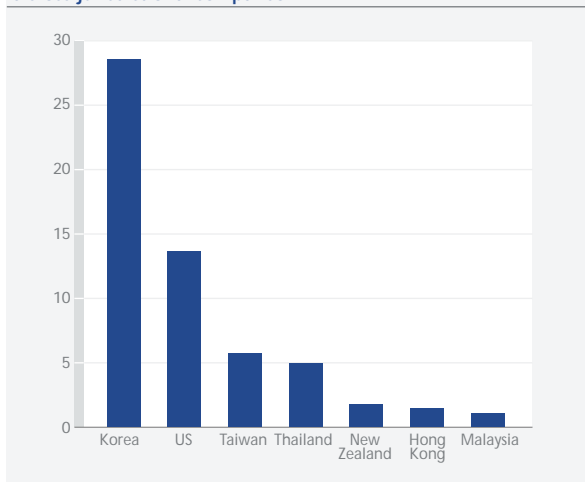
Figure 62
Number of stockbroking licences and access to stockbroking services: a cross-country comparison



Source: Kuala Lumpur Stock Exchange
Note: Based on the latest available data as of end of 1999

An alternative measure of direct access to stockbroking services in Malaysia and other jurisdictions can also be gauged by the number of branch outlets in relation to the number of stockbroking licences issued. The branch outlet-licence ratio for Malaysia is low, compared to a number of other jurisdictions as shown in Figure 63.

Figure 63
Number of branch outlets in relation to stockbroking licences: a cross-jurisdictional comparison

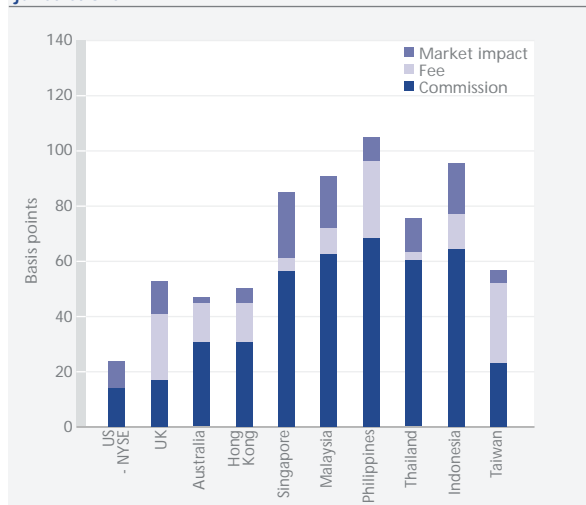


Source: Kuala Lumpur Stock Exchange
Note: Based on the latest available data as of end of 1999

Transaction costs

In comparison with a number of capital markets, transaction costs in Malaysia are relatively high, and indeed they stand out as one of the highest in the Asia-Pacific region.⁵¹ In Figure 64, transaction costs are depicted as consisting of brokerage commission, various statutory fees and the difference between prices of stocks at the execution of trade and the average of stock prices.

Figure 64
Comparison of transaction costs across selected jurisdictions



Source: Arthur Andersen
Notes: a) Market impact is the difference between the price at which a trade is executed and the average of the stock's high, low, opening, and closing prices during the trade date. Fees include clearing and/regulatory fees
b) This analysis takes into consideration the actual breakdown and weightage of different trade values transacted over a period time

Experiences in other jurisdictions have seen efforts at deregulating brokerage commission rates. The following are examples of jurisdictions where deregulation of fixed brokerage fees has been implemented.

In the United Kingdom (UK), the deregulation of brokerage commissions in October 1986 saw a subsequent decrease in the rates (Table 32).

⁵¹ As of end-June 2000.

Table 32

Effects of deregulation of brokerage commission rates in the UK

Value of equity deals	Pre-deregulation	Post-deregulation (1987)
Equity deals of £1,000	1.65%	1.5% generally, 1% for execution-only service
Equity deals ranging between £100,000 and £1 million	0.4%	0.2%
Equity deals exceeding £2 million	0.4%	0.125%

Source: Arthur Andersen

Brokerage commissions in Australia were deregulated in April 1984, which was followed by results similar to the UK example above, except for a marked increase seen for the smallest-sized trades. However, brokerage commission rates on the whole decreased, especially in the cases of high-value trading. Table 33 describes the changes observed in brokerage commission rates for the period between April 1984 and July 1986.

Table 33

Effects of deregulation of brokerage commission rates in Australia

Value of equity under consideration (A\$)	Pre-deregulation rates (%)	Immediate effects of deregulation April 1984	Net impact by July 1986
0 - 500	4.2 - 11	Increased (32%) to 5-15%	Increased 45%
501 - 1,000	3.2	Increased (16%) to 3.7%	No change
1,000 - 100,000	1.5 - 2.8	Decreased (18%) to 0.8-2.5%	Decreased 25%
100,000 - 250,000	1.3	Decreased (45%) to 0.7%	Decreased 45%
> 250,000	0.8	Decreased (56%) to 0.2-0.6%	Decreased 25%

Source: Arthur Andersen

Other forms of deregulation involve the relaxation of the commission sharing agreement between remisiers and stockbroking companies on commissions earned from trades conducted through remisiers. For example, on 28 August 2000, SGX announced its intention of deregulating the existing fixed ratio of 60:40 to be fully negotiable from 1 October 2000.

Range of financial services across jurisdictions

While stockbroking companies in Malaysia are allowed to undertake a number of different yet related activities, regulations at present do not allow them to offer certain fee-based services. In contrast to Malaysia, a number of other jurisdictions—by allowing international securities houses to be involved in various value-added fee-based activities—now offer a wider range of financial services in the stockbroking industry. Table 34 gives an indication of the situation as of end-March 2000.

Patterns of liberalisation across jurisdictions

The advent of globalisation in recent years has been accompanied by significant moves towards liberalisation among the world's various economies. Table 35 outlines the current foreign ownership limits for stockbroking companies in several neighbouring markets.

Table 35

Limits on foreign ownership of stockbroking companies in selected Asia-Pacific markets as at end-January 2000

Country	Limits on foreign ownership (%)
Hong Kong	None
Japan	None
Philippines	None
Korea	None
Thailand	None
Indonesia	85
Singapore	70
Malaysia	49

Sources: Association of Stockbroking Companies of Malaysia; Securities Commission

Notes: In the case of Singapore, while a cap of 70% currently applies to foreign ownership of stockbroking companies which are full members of SGX, no limit applies with regards to stockbroking companies classified as International Members (IM) of SGX. Currently, existing IMs in Singapore are allowed to accept trades with the minimum value of S\$500,000 from local clients. This limit will be removed in January 2001. While the limit of S\$500,000 will apply to newly admitted IMs (members admitted from July 2000 and onwards), this floor on trade value will be reduced to S\$150,000 in July 2001 and will be removed completely in January 2002, thus giving IMs equal trading rights as full members of SGX.

Table 34

Financial services provided by stockbrokers and securities houses operating in Malaysia and other countries

Type of activities	Malaysia	Selected countries ^d
Broking of equity securities	Yes	Yes
Broking of derivative instruments	Yes ^a	Yes
Broking of fixed income securities	No	Yes
Trade in securities as principal for their own trading account (proprietary trading)	Yes	Yes
Margin financing for securities	Yes	Yes
Underwriting of new issues of equities	Yes ^b	Yes
Provide custodial and nominal services	Yes	Yes
Investment research	Yes	Yes
Asset management	Yes ^a	Yes
Investment advisory	Yes	Yes
Participate in government bond issues	No	Yes
Corporate finance activities such as primary market issues and private placements	No ^c	Yes
Corporate advisory services such as debt and corporate restructuring, mergers and acquisitions and related matters	No ^c	Yes
Cash management account – flexible central asset account for securities transactions with functions such as money market fund sweep, Visa debit card and other financial management services	No	Yes

Source: Arthur Andersen; Securities Commission

Notes: "Yes" indicates availability and permissibility of activities, "No" indicates otherwise

a) Broking of derivative instruments: Only through subsidiaries

b) Underwriting of new issues of equities: Currently allowed to certain stockbroking companies based on their resource capabilities

c) Corporate finance and corporate advisory services: As of end-September 2000, only one stockbroking company has been given permission to offer these services in Malaysia

d) Selected countries: Indonesia, Hong Kong, Philippines, Singapore, UK and the US. The information has been obtained from the websites of foreign intermediaries operating in these countries

Online broking in other jurisdictions

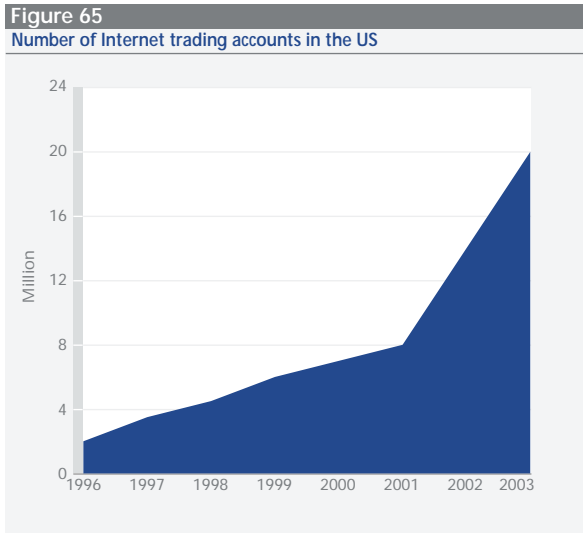
In a number of developed markets, online broking has progressed tremendously, particularly in recent years. In the US, the launch of online broking services by leading traditional full-service brokers such as Merrill Lynch and Morgan Stanley Dean Witter, presented further affirmation of the importance of the Internet as the currently most dynamic avenue for equity trading. A report mentions that the number of households using online trading services has grown from 2.7 million in

May 1999 to 3.5 million in January 2000 in US.⁵² As of early-2000, 35% of trading in the US was reported to take place online.⁵³ From a total of 12 trading sites in 1995, the number of electronic investment sites in the US had grown to 100 at the beginning of 2000. As of end-May 2000, 112 online brokerages are reported to cater for the needs of 8 million individual investors in the US alone.⁵⁴ The continuing growth of Internet trading accounts in the US is shown in Figure 65. Projections indicate that online trading is generally expected to continue to grow in the near future.

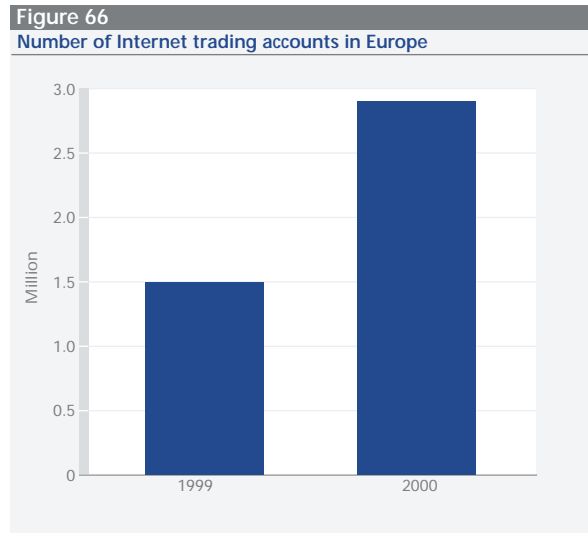
⁵² Source: "US households taking to trading online", JD Associates, Nua Internet Surveys, 9 March 2000.

⁵³ Source: Arthur Andersen.

⁵⁴ Source: "Online share trading fast gaining significance", *Business Times* 11 May 2000.



Source: Arthur Andersen
Note: Figures for the years 2000-03 are estimates as at the beginning of 2000

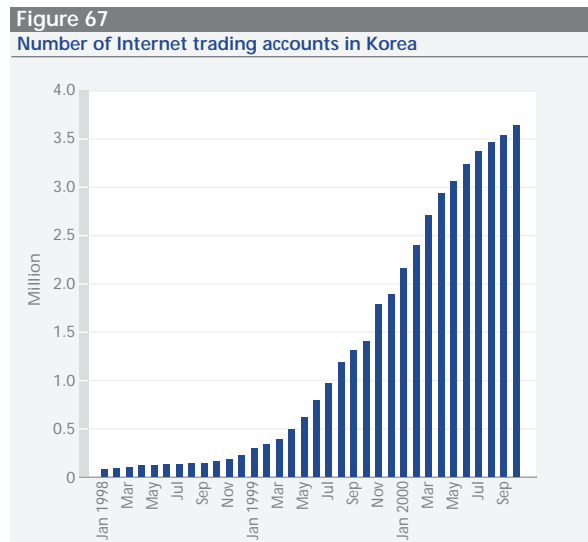


Source: J.P. Morgan, as cited by Nua Internet Surveys
Note: 2000 data is as at end-August

Statistics in Australia, with 1.5% of trading occurring online in January 1999 may seem relatively modest, but the figure had grown to 7% by June in the same year. In March 2000, 29 Internet trading sites were recorded in Australia, with online trading estimated to make up as much as 12% of average daily trade volume. Estimates as of August 2000 put online trading in Australia at 20% of total trading activity.⁵⁵

In Europe, research has revealed that 466 online accounts are opened in Sweden, 685 in Great Britain and 1,178 in Germany in an average week during the first quarter of 2000.⁵⁶ J.P. Morgan reported that as at end-June 2000, there were 2.9 million online accounts in Europe, marking a rise of 1.4 million (Figure 66) from the end of the previous year with Italy recording the most rapid growth in online trading—an increase of 275% from six months earlier.⁵⁷ Furthermore, it was predicted that by 2003, 16.8 million online trading accounts will have been opened on the continent.⁵⁸

Similarly encouraging figures could be seen in Korea, where as much as 63% of total stock trading took place online in August 2000, an increase from the figure of 49% earlier in the year. For the month of August 2000, the value of online trading in Korea amounted to as much as US\$150 billion.⁵⁹ An upward trend in the number of Internet trading accounts is observed in Korea from 1998 to end-September 2000 (Figure 67).

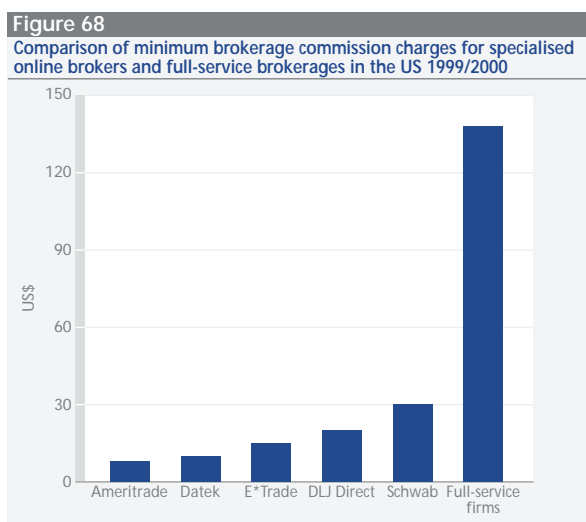


Source: Korea Securities Dealers Association

⁵⁵ Source: "The online trading industry", Australian Securities and Investments Commission (ASIC) survey of online trading websites, 2000.
⁵⁶ Source: "Online stock trading: Rapid growth into an uncertain futures", Datamonitor, 1 March 2000.
⁵⁷ Source: "E-trading surge as European invest on-line", J.P. Morgan, Nua Internet Surveys, 15 August 2000.
⁵⁸ Source: "European online accounts will grow to 16.8 million by 2003", IDC Research, 11 May 2000.
⁵⁹ Source: "Korea Online Trading Hits 63 Percent of Total" by Michael Kim, internet.com Corp., 11 October 2000.

It has also been reported that at least 10% of trading on SGX takes place online.⁶⁰ In the case of Hong Kong, the shares Internet trading, at 1.3% of total volume, appears relatively small. However, in the wake of the launch of the new electronic trading system by Hong Kong Exchanges and Clearing in April 2000, Internet trading in Hong Kong is expected to rise to as much as 40% of total trades by 2004.⁶¹

The experience of many jurisdictions suggests that the introduction of online trading is often followed by a reduction in brokerage commission rates, where such rates are negotiable. Online brokers are able to undercut conventional brokerage service providers due to lower operational costs. In other words, technological advancements appear to have “commoditised” the order-entry services traditionally provided by brokers. Figure 68 illustrates this in the case of the US.



Sources: Securities Commission; figures for online brokerages are obtained from websites of the respective brokerages; figures for full-service firms are obtained from PC World Magazine Survey February 1999 (middle value of the range cited by the survey)

⁶⁰ Source: “Taking stock” by Kathy Wihelm, *Far Eastern Economic Review*, 9 November 2000.

⁶¹ See footnote 60.

INVESTMENT MANAGEMENT

Investment management funds in Malaysia consist of, among others, funds managed by provident and pension funds; unit trust management companies; asset management companies and insurance companies.

Background

The provident and pension fund sector in Malaysia is dominated by the EPF. The EPF, the world's oldest publicly managed provident fund, was first established on 1 October 1951 by an Act of Parliament under the EPF Ordinance 1951 and operates as an open-ended defined contribution fund.⁶² EPF provides a compulsory savings scheme to ensure security and well-being of its contributors in old age. Currently, the EPF statutory rate is 23% of the value of Malaysian employees' monthly remuneration (the employee contributes 11% of his salary while the employer contributes 12% of the value of the monthly remuneration). As at end-September 2000, the EPF had over RM167.09 billion of funds under its management.⁶³ Currently, the EPF Board oversees the formulation and implementation of EPF policies. The MOF appoints the EPF Board, and the EPF Investment Panel that devises EPF investment policies.

Other (non-EPF) provident and pension funds include the LTAT, Malaysian Estates Staff Provident Fund, Teachers Provident Fund, Kumpulan Wang Amanah Pencen (KWAP) or the Pensions Trust Fund, SOCSO and six other provident and pension funds. The largest of these is KWAP, which was set up under the Pensions Trust Fund Act 1991 to provide pension benefits to public employees. Financing for KWAP comes directly from the Budget allocations and employer contributions. Another important component is the SOCSO, which unlike the EPF, is funded on the basis of social insurance principles. The LTAT which is based on the Armed Forces Act 1973, applies to servicemen who enlisted on or after 1972 and who are not eligible for pensions.

Unit trust funds are a form of collective investment that allow investors with similar investment objectives to pool their funds to be invested in a single portfolio of securities managed by professional fund managers. Malaysia introduced the unit trust fund concept relatively early compared to other countries in the region. The first unit trust fund in Malaysia was established in 1959 by The Malayan Unit Trust Ltd. However, it ceased operations in 1969. From 1960–80, five new unit trust companies were established, namely: Asia Unit Trust Bhd in 1966; Amanah Saham Mara Bhd in 1968; Kuala Lumpur Mutual Fund in 1975; Pelaburan Johor Bhd and MIC Unit Trust Bhd in 1977. These five companies launched a total of 18 funds over the same period.

During the period 1960–80, the unit trust industry was regulated jointly by the ROC, the Public Trustee of Malaysia, the Minister of Domestic Trade and Consumer Affairs and BNM. Such a diverse involvement of bodies necessitated the setting up of a committee (comprising representatives from each authority) to co-ordinate the approval process for the establishment of unit trust schemes. Accordingly, the Informal Committee for Unit Trust Funds was established in 1975. This period also witnessed the launching of Skim Amanah Saham Nasional (ASN) or the National Unit Trust Scheme by the government in 1981 with the purpose of inculcating savings habits among the Bumiputera community and to encourage Bumiputera ownership in the corporate sector. In 1990, the Amanah Saham Bumiputera (ASB) or the Bumiputera Trust Fund was launched to replace ASN as a fund that transacted based on daily pricing of its NAV.

The extensive marketing strategies adopted by the ASN and ASB played a key role in making unit trusts a "household product" in Malaysia. In 1993, the SC became responsible for the regulation of the local unit trust industry with the enactment of the Securities Commission Act 1993 (SCA).

Asset management companies, commonly referred to as fund managers, are companies that manage funds on behalf of a client for the purpose of investment. Under section 15A of the SIA, asset management companies in Malaysia are required to be licensed. As at end-1999, there were 71 licensed

⁶² Source: Employees Provident Fund.

⁶³ See footnote 62.

asset management companies. At that time, local asset management funds totalled RM40.7 billion. The bulk of local funds under management, approximately RM33.0 billion (or 80.9% of total local funds under management by asset managers) were from unit trust funds that had chosen to outsource their investment functions to external fund managers.⁶⁴

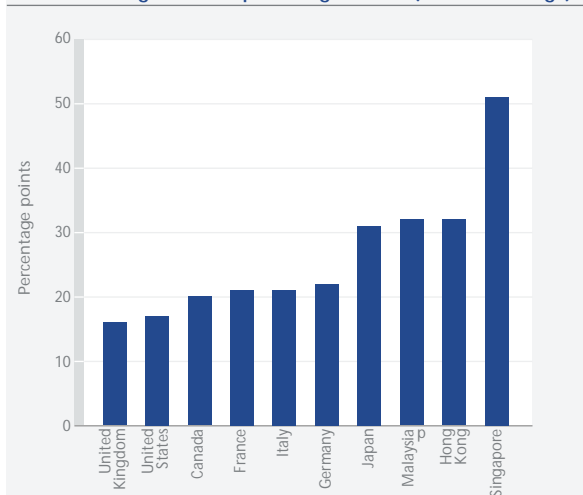
Insurance companies also form a significant source of institutional funds in Malaysia. General and life insurance companies, together with Takaful play a major role in managing funds on behalf of their policyholders. As at end-September 2000, local insurance funds had a total of RM50.4 billion worth of assets under management.⁶⁵

Domestic Overview

Deployment of domestic funds

Malaysia has a relatively high propensity to save (Figure 69). From 1990–99, Malaysia's average savings rate of about 32.4% of GDP was on average higher than that of developed countries such as the

Figure 69
National savings rate as a percentage of GDP (1990–99 average)



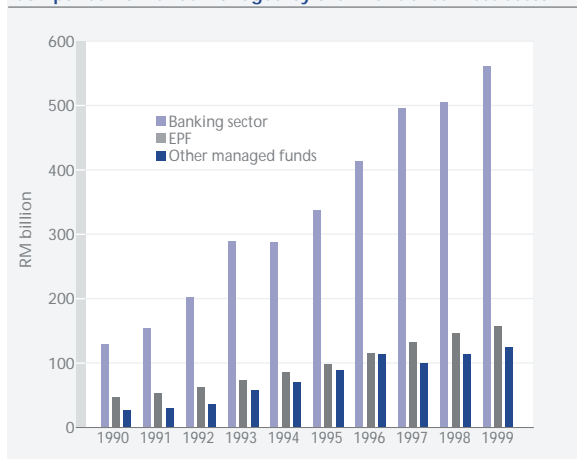
Sources: Securities Commission; Wharton Econometrics Forecasting Associates Group; Bank Negara Malaysia; Monetary Authority of Singapore; United Nations Economic and Social Commission for Asia and the Pacific; Census and Statistics Department, Hong Kong Special Administrative Region

Note: National savings rate equals gross domestic saving divided by nominal GDP

*p-preliminary

US, Canada, Germany and Japan. It was also comparable to Hong Kong's. The value of savings mobilised by banking institutions has grown more than five-fold during the 1990s, thus increasing the domination of the banking sector over the EPF and other forms of managed funds (such as unit trust funds and insurance funds), which have not expanded as rapidly (Figure 70).

Figure 70
Comparison of funds managed by the financial services sector



Sources: Bank Negara Malaysia; Securities Commission

- Notes: a) Funds managed by banking institutions refer to deposits of the financial system, which includes commercial banks, finance companies, merchant banks, discount houses, Islamic banks and BSN
b) Funds managed by the EPF refer to total accumulated contributor's balances
c) Other managed funds refer to funds managed by other provident and pension funds, unit trust management companies, asset management companies and insurance companies
d) Data for asset management companies' funds under management are unavailable for the period 1990–94. 1998 figures are as at end-June
e) Data for funds managed by banking institutions and other managed funds in 1999 are preliminary

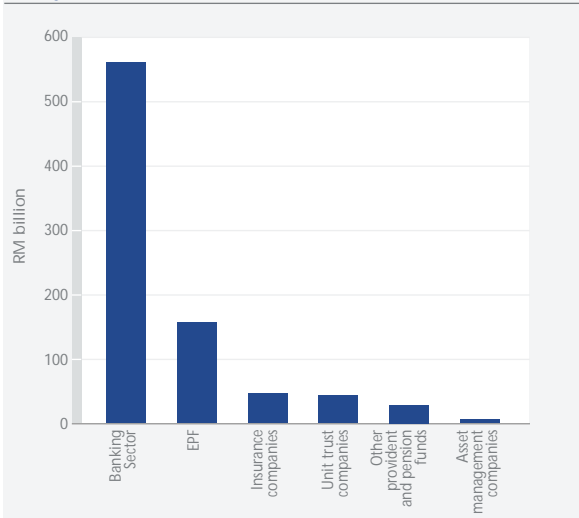
In 1999, about RM560 billion of Malaysia's financial assets were channelled into the banking sector in the form of deposits; by contrast, managed funds, including EPF, amount to less than half that amount (Figure 71). Nevertheless, managed funds (especially unit trusts) have enjoyed growing popularity in recent years. The dominance of the banking sector in Malaysia compares with the situation in Japan and Australia (Figure 72 and Figure 73) but is in stark contrast with that of the US, where capital market intermediaries play a far larger role in savings mobilisation (Figure 74).

⁶⁴ Source: Securities Commission.

⁶⁵ Source: Bank Negara Malaysia. This is a preliminary figure.

Figure 71

Breakdown of funds managed by the Malaysian financial services sector as at end-1999

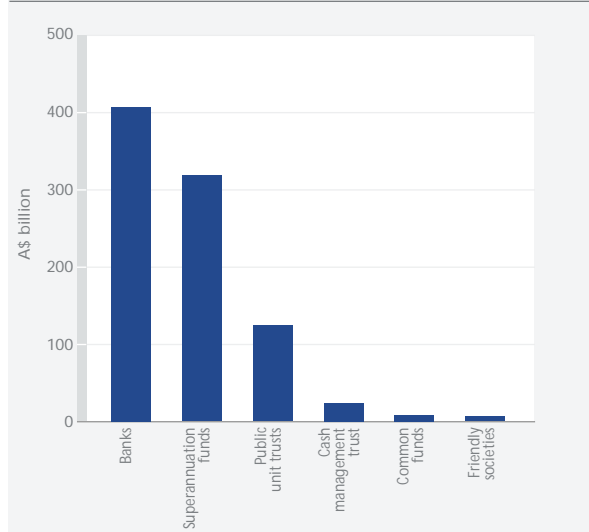


Sources: Bank Negara Malaysia; Securities Commission

- Notes:
- a) Funds managed by banking institutions refers to deposits of the financial system, which includes commercial banks, finance companies, merchant banks, discount houses, Islamic banks and BSN
 - b) Funds managed by the EPF refer to total accumulated contributor's balances
 - c) Fund managed by other provident and pension refers to assets of non-EPF provident and pension funds which include the LTAT, Malaysian Estates Staff Provident Fund, Teachers Provident Fund, KWAP, SOCSO, and six other provident and pension funds
 - d) Funds managed by insurance companies refers to total assets of life and general insurance funds
 - e) Funds managed by unit trust companies refers to total NAV of unit trust companies
 - f) Funds managed by asset management companies refers to total funds managed by asset management companies
 - g) Data for funds managed by the banking sector and other provident and pension funds are preliminary

Figure 73

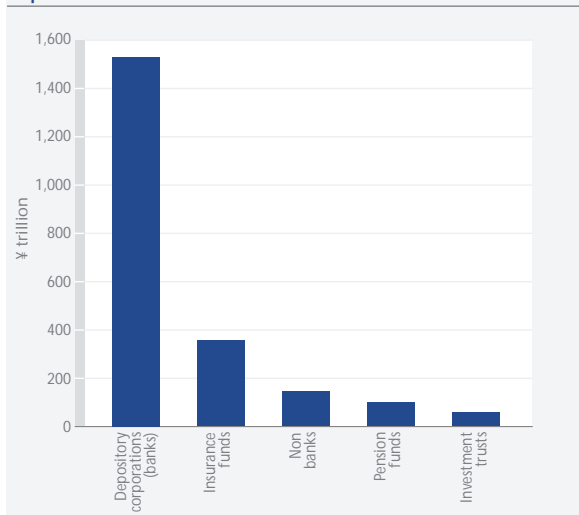
Breakdown of funds managed by the Australian financial services sector as at end-June 2000



Sources: Reserve Bank of Australia; Securities Commission

Figure 72

Breakdown of funds managed by the Japanese financial services sector as at end-March 2000

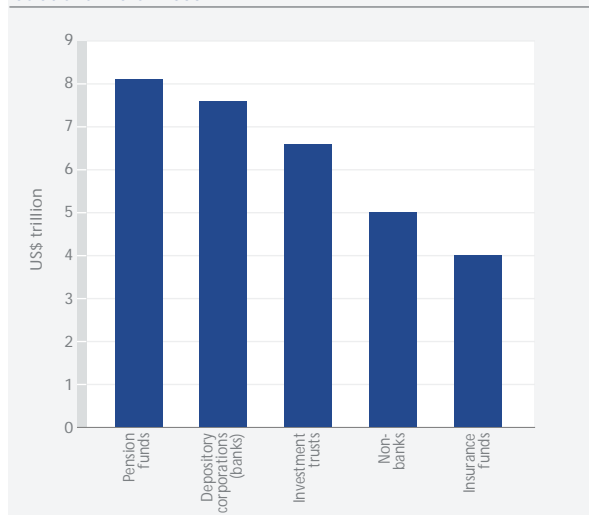


Sources: Bank of Japan; Securities Commission

Note: Figures refers to value of financial assets

Figure 74

Breakdown of funds managed by the US financial services sector as at end-March 2000

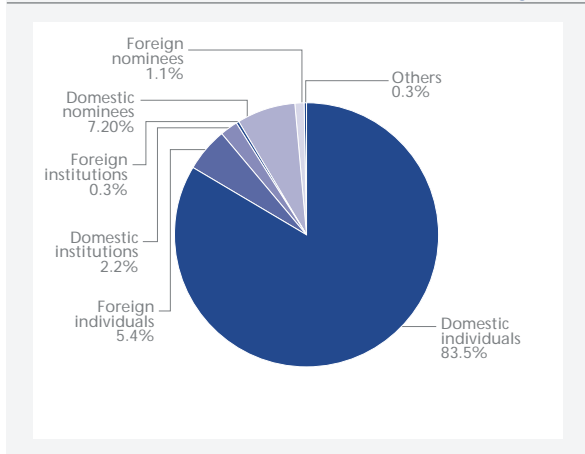


Sources: Federal Reserve; quoted from Bank of Japan; Securities Commission

Note: Figures refer to value of financial assets

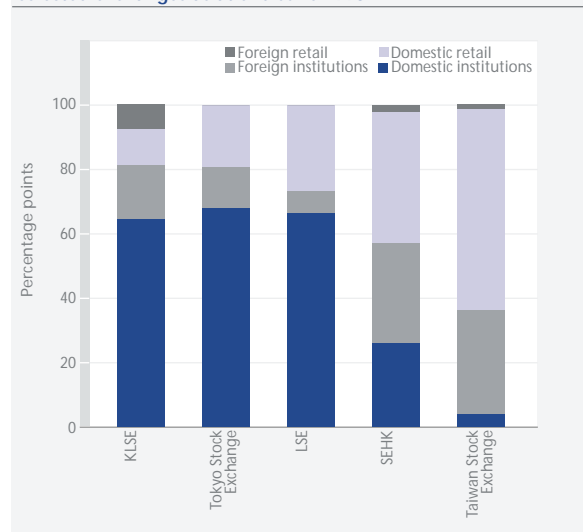
From 1994–99, foreign and local institutions represented on average less than 3% of the total number of KLSE investors (Figure 75), but held about 43% of the total value of KLSE equities (Figure 76). Figure 77 shows the investor profile by value of total equity held on the KLSE and selected exchanges as at end-June 1998.

Figure 75
Total number of investors in the KLSE (end 1994–99 average)



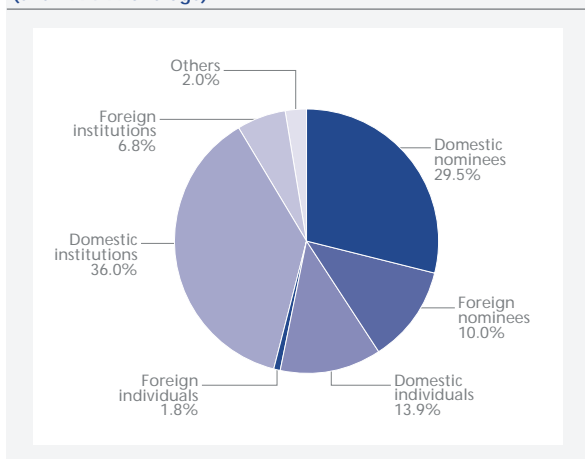
Sources: Kuala Lumpur Stock Exchange; Securities Commission

Figure 77
Investor profile by value of total equity held on the KLSE and selected exchanges as at end-June 1998



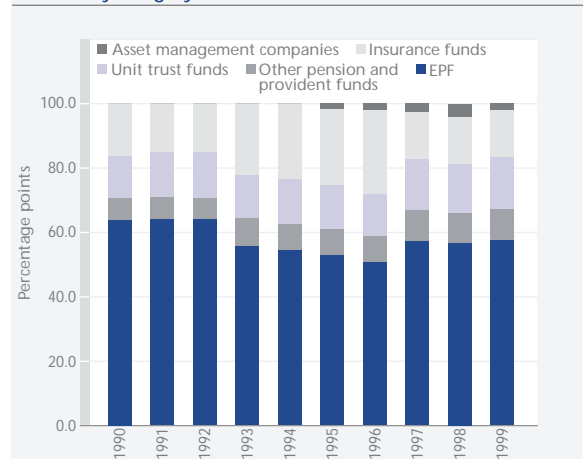
Sources: Arthur Andersen; Kuala Lumpur Stock Exchange; Salmon Smith Barney; Stock Exchange of Hong Kong; Taiwan Stock Exchange; Tokyo Stock Exchange

Figure 76
KLSE investor profile by value of total equity held (end 1994–99 average)



Sources: Kuala Lumpur Stock Exchange; Securities Commission

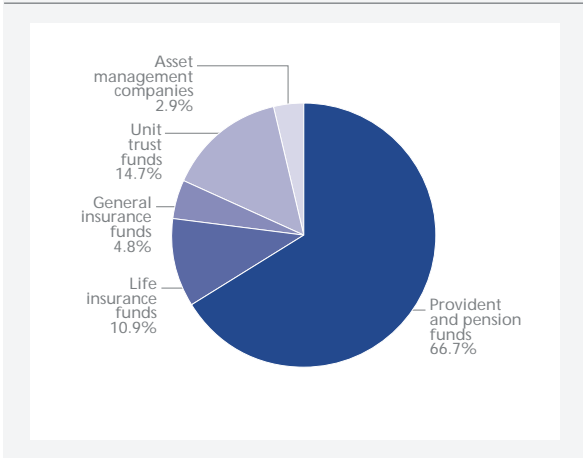
Figure 78
Malaysian investment management funds – assets by category of fund



Sources: Bank Negara Malaysia; Securities Commission
 Notes: a) Data for asset management companies funds under management were not available for the period 1990–94. 1998 figures are as at end-June. Other provident and pension funds include the LTAT, Malaysian Estates Staff Provident Fund, Teachers Provident Fund, KWAP, SOCSO and six other provident and pension funds
 b) Data for funds managed by other provident and pension funds in 1999 are preliminary

⁶⁶ A statutory requirement that up to 23% of employees’ remuneration must be contributed to the EPF is thought to be a major reason for this.

Figure 79
Malaysian investment management funds - assets by category of fund as at end-1999

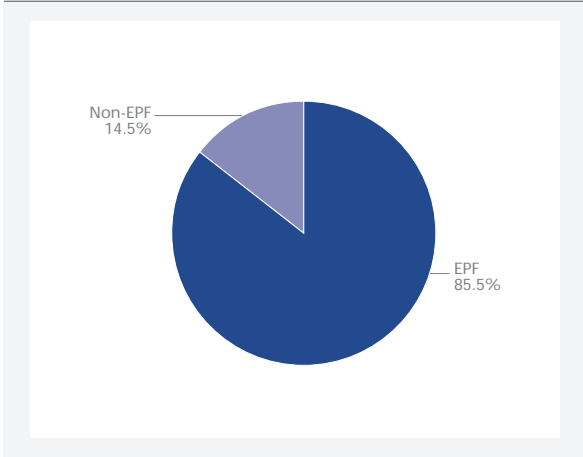


Sources: Bank Negara Malaysia; Securities Commission
 Note: Data for funds managed by other provident and pension funds are preliminary

Provident and pension funds

Provident and pension funds represent the most significant sector of the Malaysian investment management industry. The sector is dominated by the EPF, which manages 86% of overall provident and pension funds (Figure 80). The absolute value of EPF investments continued to rise steadily during the

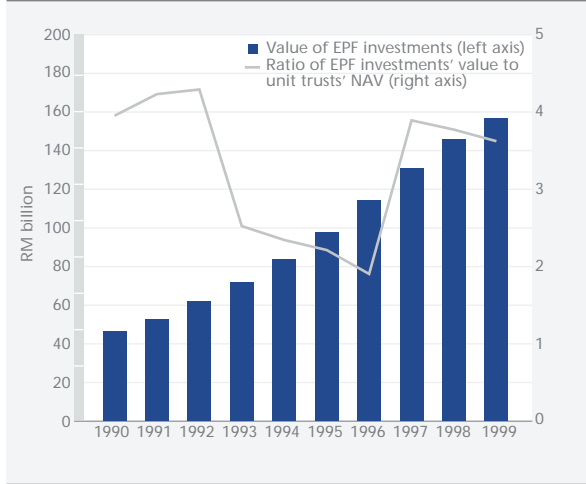
Figure 80
Provident and pension funds as at end-1999 (preliminary)



Sources: Bank Negara Malaysia; Securities Commission
 Note: Non-EPF provident and pension funds include the LTAT, Malaysian Estates Staff Provident Fund, Teachers Provident Fund, KWAP, SOCSO and six other provident and pension funds

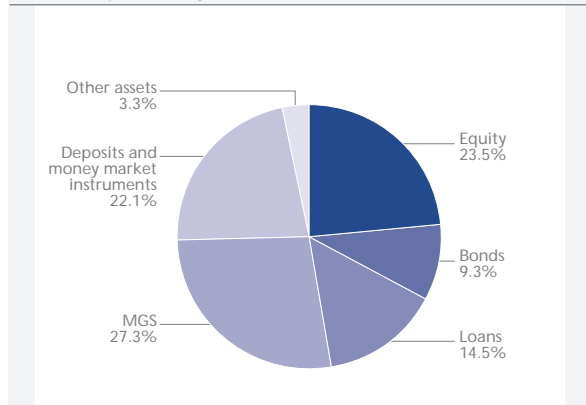
1990s, although it declined in proportion to total unit trusts' NAV from 1992 to 1996 and 1997 to 1999, reflecting the increasing popularity of unit trust funds as a savings vehicle (Figure 81). Currently, pension and provident funds' investment portfolios are concentrated in low risk assets. In 1999, for instance, about 75% of the overall provident and pension fund portfolio consisted of PDS, MGS, straight loans and banking sector deposits (Figure 82).⁶⁷

Figure 81
Value of EPF investments relative to total unit trusts' NAV



Sources: Bank Negara Malaysia; Securities Commission

Figure 82
Investment portfolio of provident and pension funds as at end-1999 (preliminary)



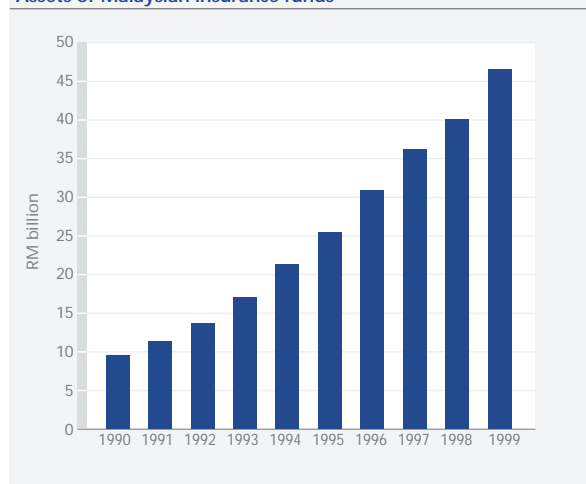
Sources: Bank Negara Malaysia; Securities Commission

⁶⁷ Source: Bank Negara Malaysia.

Insurance funds

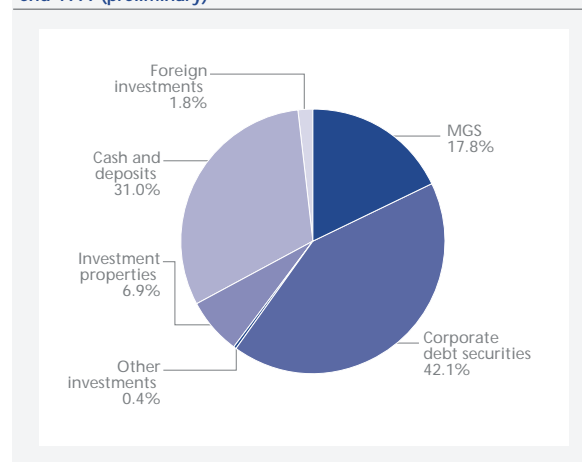
The assets of Malaysian insurance funds have been growing rapidly (Figure 83). Life insurance funds, in particular, have accounted for most of the sector's funds under management. In 1999, 69% of insurance funds' assets belonged to life insurance funds (Figure 84). During the same period, local asset management companies managed RM289.6 million of insurance funds.⁶⁸

Figure 83
Assets of Malaysian insurance funds



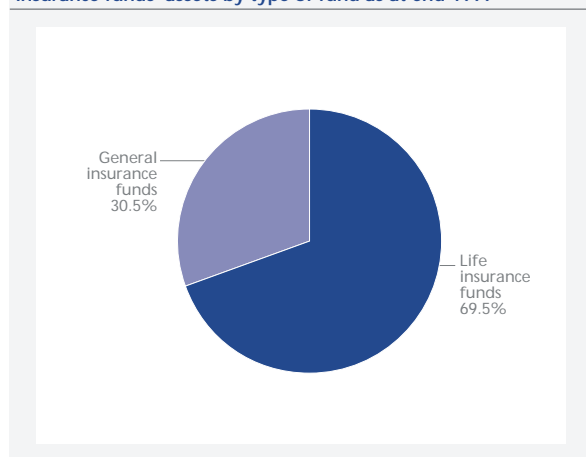
Sources: Bank Negara Malaysia; Securities Commission

Figure 85
Investment portfolio of Malaysian life insurance funds as at end-1999 (preliminary)



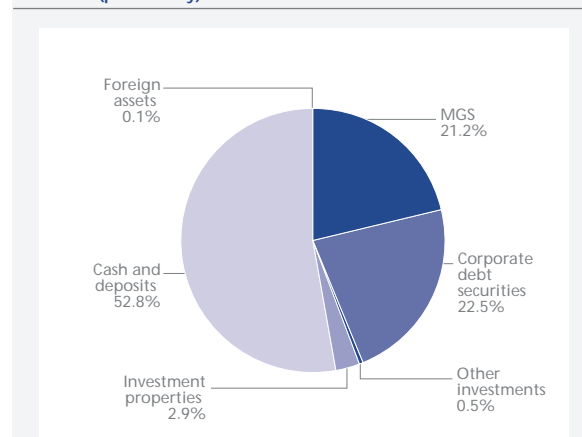
Source: Bank Negara Malaysia

Figure 84
Insurance funds' assets by type of fund as at end-1999



Sources: Bank Negara Malaysia; Securities Commission

Figure 86
Investment portfolio of Malaysian general insurance funds as at end-1999 (preliminary)



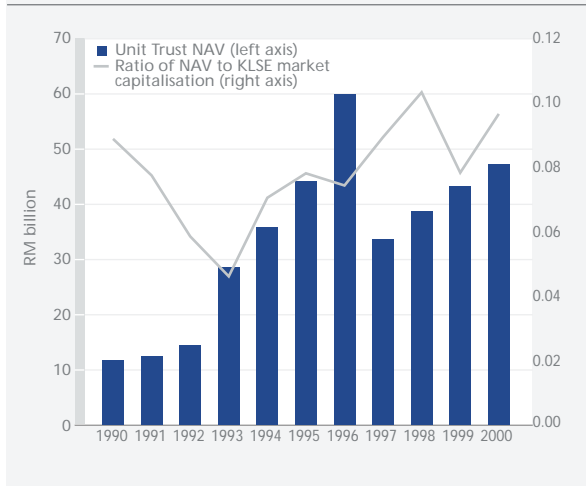
Source: Bank Negara Malaysia

⁶⁸ Source: Securities Commission.

Unit trust management companies

Unit trust funds, which are managed by unit trust management companies primarily for local retail investors, have enjoyed growing popularity since the beginning of the 1990s. The financial crisis of 1997–98 notwithstanding, growth in NAV of Malaysian unit trust management companies during 1990–99 has generally trended upwards (Figure 87). From 1993–96, the NAV of local unit trust management companies more than doubled from RM28.6 billion in 1993 to RM60 billion in 1996. With the onset of the Asian financial crisis, NAV declined sharply by 44% from 1996 to 1997 but has since recovered, albeit more gradually.

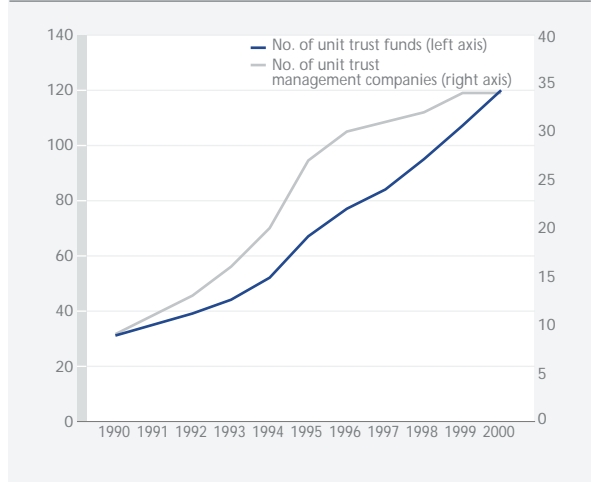
Figure 87
NAV of the unit trusts industry in Malaysia relative to KLSE market capitalisation



Sources: Bank Negara Malaysia; Securities Commission
Note: 2000 data is as at end-September

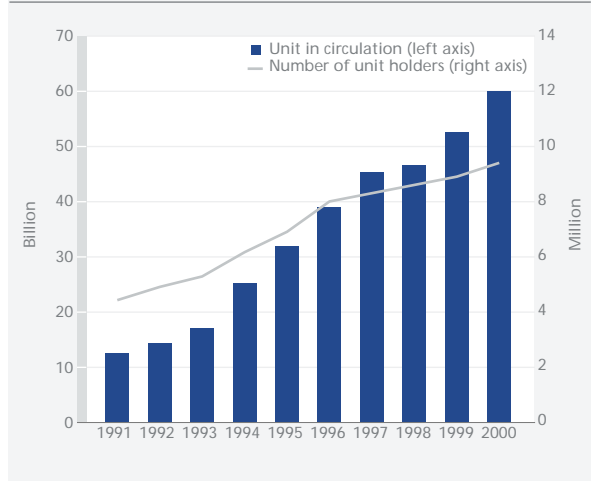
Growth of the Malaysian unit trust industry can be seen from a rise in the number of unit trust funds available, management companies established, unit holders and units in circulation (Figure 88 and Figure 89). Currently, Malaysian unit trust management companies offer mainly equity-based products (Table 36), and have tended to concentrate their investments within the domestic market (Figure 90).

Figure 88
Number of unit trust funds and unit trust management companies



Sources: Bank Negara Malaysia; Securities Commission
Notes: a) Data for 2000 is as at end-September 2000
b) 1993–2000 figures include funds approved but not yet launched
c) 1990–92 figures only include launched funds

Figure 89
Number of unit trust holders and number of units in circulation



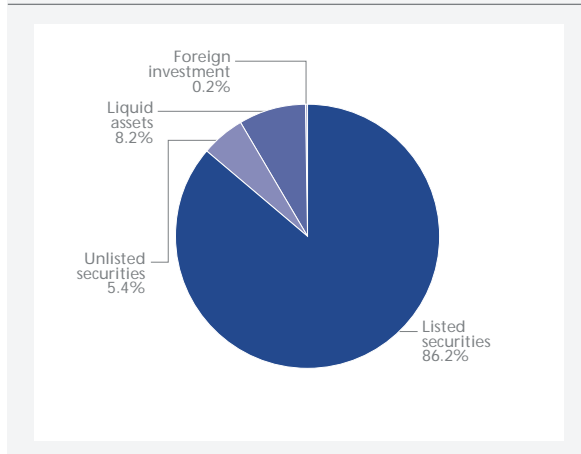
Sources: Bank Negara Malaysia; Securities Commission
Note: 2000 data is as at end-September

Table 36
Types of unit trust funds available in Malaysia as at end-September 2000

Type of fund	Number of Funds
Equity-based funds	72
Islamic funds	14
Balanced funds	11
Bond funds	8
Money market funds	2
Total	107

Source: Lipper Analytical Services
Note: The categories above are those of Lipper Analytical Services

Figure 90
Investment portfolio of Malaysian unit trust industry by value as at end-October 1999



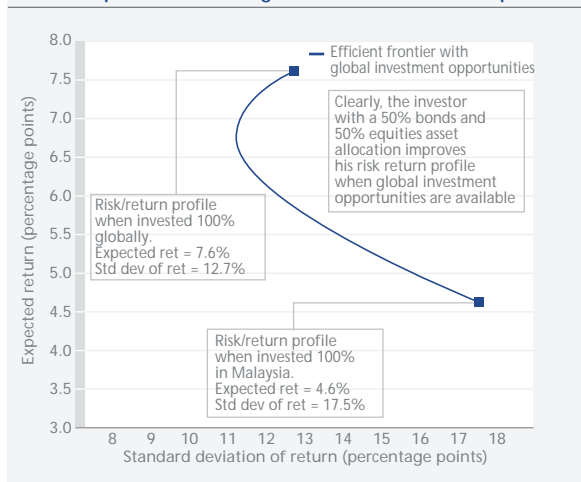
Source: Securities Commission

As a result, the risk-return profile of funds managed by the local unit trust industry appears to be limited. Figure 91 illustrates a hypothetical case of a balanced investment portfolio composed of 50% bonds and 50% equities. If fully invested domestically, the portfolio would have an annual

return of 4.6% with an annualised standard deviation of 17.5% during the period 1990–99. If the portfolio invested globally in stocks and bonds, it would increase its annual return to 7.6% and reduce its standard deviation to 12.7% during the period. Thus, global investing improves the risk/return profile of the investment portfolio.

Malaysia's unit trust management industry is characterised by a high degree of industry concentration (Figure 92). Five large companies manage 85% of the total funds in the industry, while the remaining 29 companies manage only 15% of total funds. This is reflective of the small size of the industry, as well as because Amanah Saham Nasional Bhd (ASNB), a unit trust management company wholly owned by Permodalan Nasional Berhad (PNB), manages almost 70% of the unit trust industry's NAV. Nevertheless, concentration remains high even when the impact of ASNB is taken into account, with the next five largest companies managing about 59% of total funds in the industry (Figure 93).

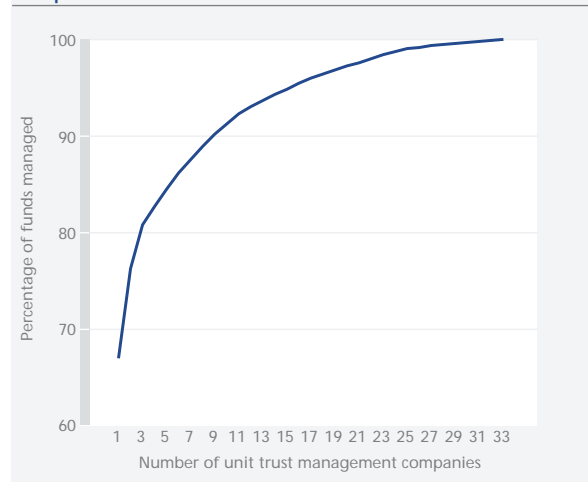
Figure 91
Efficient frontier for a Malaysian unit trust management company that has a portfolio consisting of 50% bonds and 50% equities



Sources: Securities Commission; Datastream/ICV

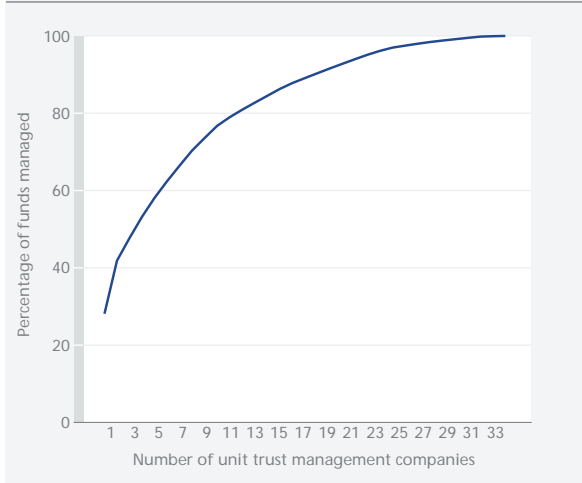
Note: Estimates are based on historical figures. Monthly returns on the three-month Malaysian treasury bill for the period 1990–99 were used as a proxy for the return on Malaysian bonds. Monthly returns on the JP Morgan G-7 Bond Index for the same period were used as a proxy for global bond portfolio returns. Monthly returns on the KLCI for the period 1990–99 were used as a proxy for the return of Malaysian stocks. Monthly returns on the Morgan Stanley Capital International Index (MSCI) Global Equity index over the same period were used as a proxy for the return on a global equity portfolio.

Figure 92
Distribution of funds managed by unit trust management companies as at end-June 2000



Source: Securities Commission

Figure 93
Distribution of funds managed by unit trust management companies excluding ASNB as at end-June 2000



Source: Securities Commission

Asset management companies

Asset management companies manage discretionary funds on behalf of individual and institutional clients (Table 37). The bulk of funds under management by asset management companies were from unit trusts. Unit trust funds under management totalled RM33 billion at end-1999 compared with RM27 billion at end-1998. As at end-1999, this amount represented 80.9% of asset management companies' funds under

Table 37
Funds managed by asset management companies – by type of funds

Type of fund	Local (RM million)		Foreign (RM million) ^a	
	1999	1998	1999	1998
Charitable funds	163.9	149.0	-	-
Corporate funds	2,843.9	1,933.7	1,048.4	423.3
EPF	1,066.0	589.0	-	-
Government funds	432.0	309.7	-	-
Individual funds	650.4	387.3	111.7	106.0
Insurance funds	289.6	300.6	5.7	-
Islamic funds	95.3	56.3	1.9	2.3
Other funds	1,355.0	1,076.9	1,984.7	1,135.1
Private pension funds	866.3	590.1	6.5	8.4
Unit trust funds	32,976.5	26,659.5	112.5	80.2
Total	40,739.1	32,052.2	3,271.4	1,755.3

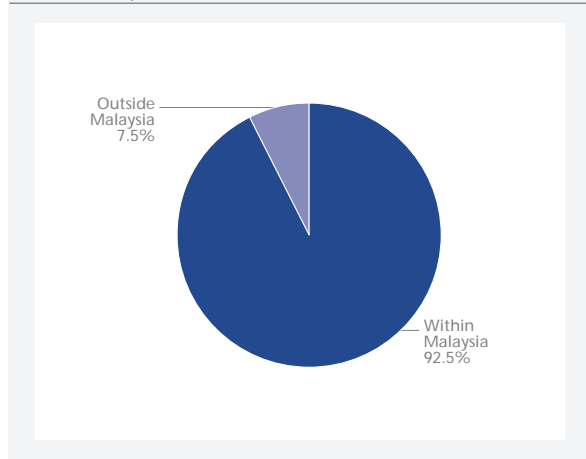
Source: Securities Commission

Note: a) Converted from US Dollars at a rate of US\$1.00=RM\$3.80

management compared with 83.2% as at end-1998. Other types of funds under management include charitable funds, corporate funds, EPF funds, funds of government bodies, individual funds, insurance funds, Islamic funds and private pension funds.

The local asset management industry invested most of its funds domestically (Figure 94). As at end-1999, around RM41.0 billion or about 93% of asset management industry funds were invested within Malaysia, while only RM3.3 billion or about 7% was invested abroad.

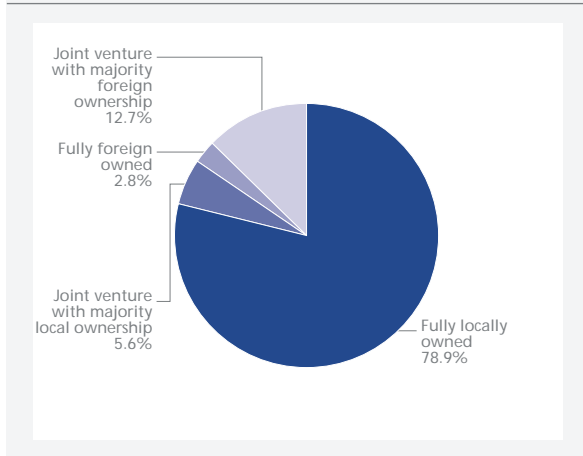
Figure 94
Asset management industry's funds invested within and outside Malaysia as at end-1999



Source: Securities Commission

Foreign participation in the asset management industry is small (Figure 95). In 1999, 78% of asset management companies were 100% locally-owned, while only 3% were fully-foreign owned. The remaining 18% of asset management companies consisted of joint ventures with foreign fund managers.

Figure 95
Ownership structure of Malaysian asset management companies as at end-1999

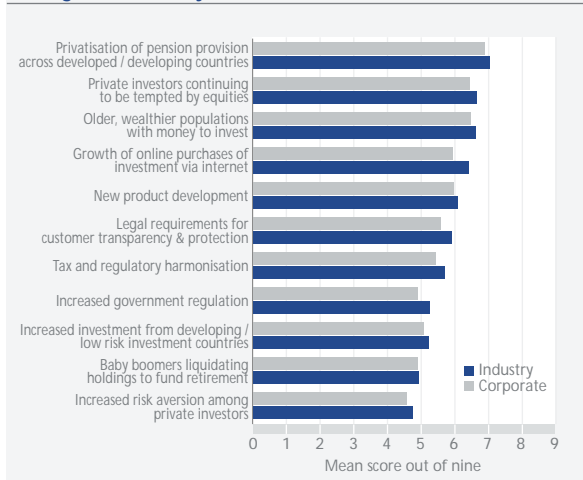


Source: Securities Commission

International Landscape

The global investment management industry is undergoing a period of rapid change. Investment managers are exploring and entering into non-traditional fields such as money market funds, while many banks globally are diversifying their operations from traditional lending and deposit acceptance by venturing into more lucrative asset management activities. A recent study has suggested that the main drivers of this transformation are, and will continue to be, globalisation, deregulation and information technology (IT) (Figure 96).

Figure 96
Factors influencing the future of the global investment management industry



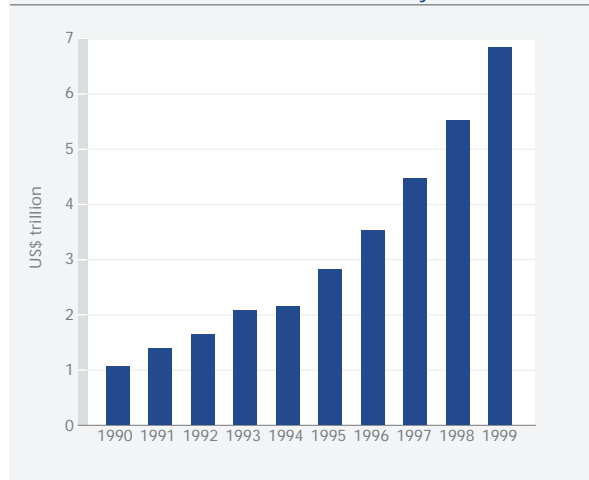
Sources: "Asset management: strategic perceptions of tomorrow's markets", *Global Financial Services Research Papers Issue No.1*, Arthur Andersen, June 1999

Globalisation allows investment managers to tap lucrative sources of funds for management, particularly in developing economies. Deregulation has seen the privatisation of pension systems, and has prompted the growth not only of pension funds but also of mutual funds. Advancements in IT have given rise to much wider distribution channels for fund managers. In the sections that follow, we analyse the investment management industries of the US, UK, Australia and Chile that have experienced rapid growth over the years.

Growth of the US investment management industry

Mutual funds are the key participants in the US investment management industry. Mutual funds were first introduced in 1929, and by 1979, there existed 524 mutual funds with total assets of US\$100 billion under management.⁶⁹ Over the next 20 years, the industry experienced phenomenal growth (Figure 97).

Figure 97
Total net assets of the US mutual fund industry

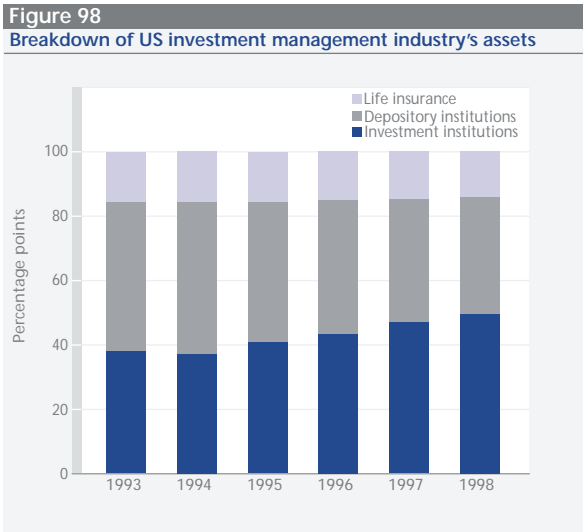


Sources: Securities Commission; Federal Reserve Board of Governors

⁶⁹ Source: "Fund Management Industry – Moving Ahead" by Neville Azzopardi.

From the period 1979–99, the financial assets under management by US mutual funds grew by an average annual rate of 26%.

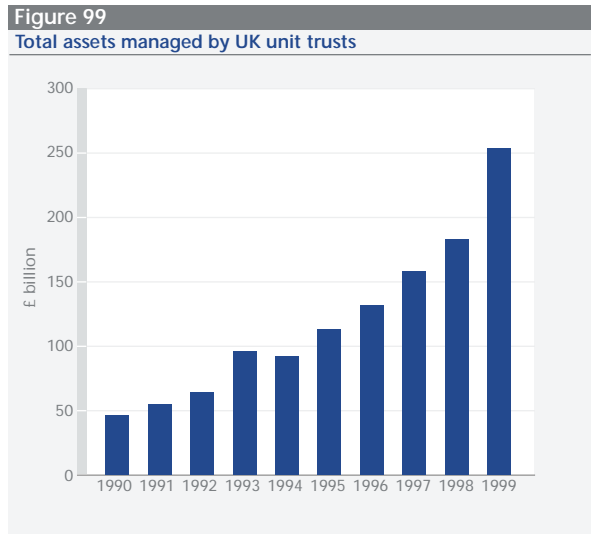
A driver of this growth was the evolution of tax-preferred retirement savings accounts, known as 401(k) plans, which were first introduced in 1981. Under these plans, employers could decide on which mutual fund to allocate pension contributions. This further spurred the growth of the US investment management sector as employers sought to maximise the return earned on their employees' pension contributions. Additionally, investment institutions, which include mutual funds, have captured an increasing share of funds under management (Figure 98).



Sources: Federal Reserve; Federal Financial Institutions Examination Council; Investment Company Institute; Securities Commission

Growth of the UK investment management industry

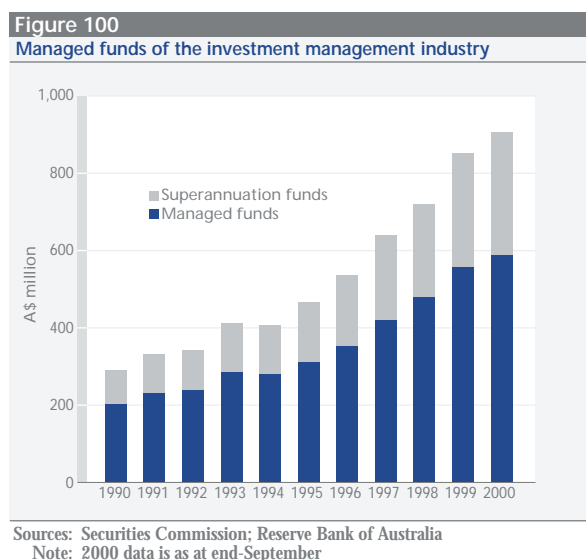
The UK investment management industry has experienced tremendous growth, particularly in the unit trust industry (Figure 99). The incentives given by unit trusts offer some tax incentives to individuals for equity-related investments under a Personal Equity Plan (PEP). Under this incentive, income and capital gains generated within a PEP are tax exempt. A desire to reap this tax benefit explains the growth of the UK unit trust industry.



Source: Datastream/ICV

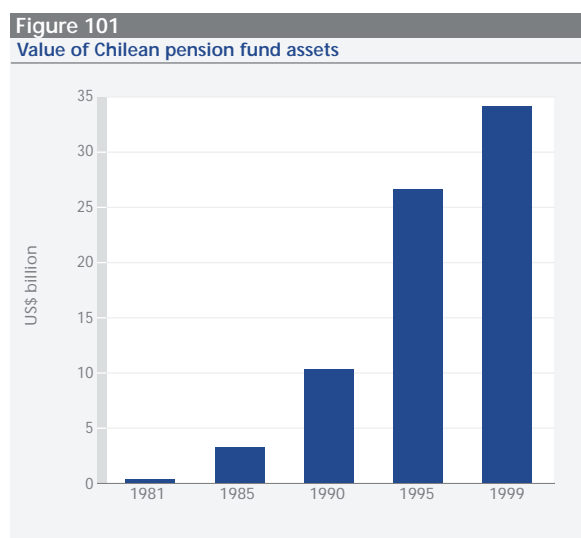
Growth of the Australian investment management industry

From 1990 to 1999, the Australian investment management industry experienced rapid growth (Figure 100). The Australian investment management industry was further boosted in 1993 with the introduction of compulsory superannuation schemes. Since 1993, total superannuation funds have grown annually by an average rate of about 15%. These schemes are trust-based funds that are mainly linked to a particular employer or industry. Under this scheme, employees are free to choose the superannuation fund to invest in, and have the flexibility to transfer monies across the various approved superannuation funds.



Growth of the Chilean investment management industry

The Chilean investment management industry experienced rapid growth after pension reform in 1981 (Figure 101). Subsequent to the reform, an investment-based private system of individual retirement accounts replaced the government pay-as-you-go system. Under the new system, pension funds are managed by specialised joint-stock companies known as Administradoras de Fondos de Pensiones (AFP).⁷⁰ AFPs can be formed by any group of shareholders within Chile. The new system also allows employees to select the fund to invest in and employees are free to switch between funds. Consequently, many AFPs emerged to cater for the needs of Chileans. Thus, this system was a major impetus for the growth of the Chilean investment management industry.



⁷⁰ Source: "The Chilean Pension System", *OECD Working Paper AWP 5.6*.

Comparison of mandatory contributions to pension and provident schemes

Compared to Hong Kong, Chile, Sweden, and Australia, Malaysia has a higher compulsory contribution rate for its provident and pension plan, as a result of the EPF (Table 38). Additionally, the minimum qualifying amount for the optional

pre-retirement scheme in Malaysia is also higher than other economies. Malaysia, has a compulsory contribution rate of 23% and a minimum qualifying amount of greater than RM50,000 for its pre-retirement scheme. In Hong Kong, for instance, the compulsory contribution rate is only 10% with no minimum qualifying amount for the optional pre-retirement scheme.

Table 38

Comparison of mandatory pension and provident fund contribution rates and minimum qualifying amount for pre-retirement schemes

Type of fund	Malaysia	Singapore	Hong Kong	Chile	Sweden	Australia
Compulsory contribution (%)	23% (12% contributed by employers, 11% contributed by employees)	36%	10%	10%	18.5%	7%
Minimum qualifying amount for pre-retirement schemes	Account A > RM50,000 (Account 1 = 60% of total savings)	Balance > S\$60,000	N/A (All funds to be managed by private fund managers)	N/A (All funds are managed by private fund managers)	Split 16% to state and 2.5% to employee selected investment fund	N/A (All funds are managed by private fund managers except for public sector funds)

Sources: Arthur Andersen; Central Provident Fund Board, Singapore

Note: For Singapore, this is the maximum contribution rate with effect from 1 January 2001

REGULATORY FRAMEWORK

Background

The regulatory framework governing the Malaysian capital market consists of various acts, subsidiary legislations, guidelines and codes formulated and released by the SC or other relevant authorities; listing requirements; business and trading rules of the respective exchanges, as well as rules of the clearing houses and central depositories. Table 39 provides a summary of the chronological developments of the regulatory framework relating to capital market regulation in Malaysia.

As a result of historical developments, the Malaysian capital market is regulated by a number of regulatory authorities. Some of the regulatory authorities were created to meet the specific needs of the industry. Apart from the main regulatory bodies tasked with overseeing the securities industry, other government bodies were also responsible for maintaining the cohesiveness of economic and financial policies as a whole, and ensuring that the development of the securities industry is consistent with national objectives and aspirations. Consequently, certain ministries and government departments such as the MOF, MITI and the Prime Minister's Department—via the FIC—have been involved in the regulation of the capital market and the financial system.

The early stages of the development of the capital market regulatory framework were driven by the then Malayan Stock Exchange and the relevant regulatory authorities such as the central bank and the ROC. The exchange developed a regulatory structure through the introduction of rules including listing requirements and supervision of dealings on the exchange as well as the creation of a fidelity fund. In 1963, the exchange set up a board to consider applications for new listings and to determine listing requirements. A consultative process was established whereby the central bank had to be consulted prior to the publication of the

offer document for all companies seeking a listing. This process was formalised with the establishment of the CIC in 1968, whose main function was to consider proposals for the issue, listing and quotation of securities on the exchange. Another role the CIC undertook was to promote and nurture the exchange.

The foundations of the legislative framework of the Malaysian capital market were laid down in the early 1960s. The Companies Act 1965 (CA) was passed as the principal act that governs and regulates all aspects of company law, among which are the pre-incorporation, incorporation, formation, fund raising as well as the duties and operations of a company and its directors. The ROC was entrusted with the administration of the CA.

A milestone in the development of capital market legislation was the introduction of the Securities Industry Act in 1973. The Act was introduced in a conscious effort to create a well-regulated market and to protect investor interests. More specifically, the Act provided for the licensing of dealers, and for powers to regulate the trading of securities in areas such as insider trading and market manipulation. Again, the ROC was the authority administering the Act, as it had already established a legal framework in its management and administration of the CA. Until 1993, the ROC's main functions under the SIA was to be the licensing authority for capital market intermediaries as well as to undertake investigations for breaches of provisions under the SIA. In 1983, a new Securities Industry Act was introduced, which enhanced the regulatory requirements on the industry as well as supervision and control of intermediaries, issuers and conduct of trading. The Act further gave statutory recognition to the CIC and the Panel on Take-overs and Mergers (TOP). With the promulgation of the SCA, the functions of the CIC and TOP were assumed by the SC.

The FIC was set up in 1974 to provide policy direction on the compliance of the corporate sector with the requirements of the New Economic Policy in respect of ownership and capital structure. The policies and guidelines issued by the FIC continue to apply to the securities industry today.

Table 39

The development of the legislative framework for the Malaysian capital market

Date	Changes and developments
1959	Loan (Local) Ordinance Act is passed, giving the government authorisation to raise funding locally with the central bank acting as the agent of the government.
1965	Passing of the CA designed to govern all aspects of company law. The provisions of CA also prescribed, among other things, that reporting entities are obliged to provide a minimum level of disclosure to the public, as well as outlined the rights and obligations of the directors and shareholders vis-a-vis a third party. The ROC is appointed as the body responsible for the registration and incorporation of companies.
1968	CIC is formed as a measure to formalise the <i>modus operandi</i> with regards to companies intending to offer shares to the public. The Governor of BNM becomes the chairman of the committee and the central bank is appointed as its secretariat.
1973	The Securities Industry Act 1973 is introduced to provide more specific regulation for the securities industry and to protect investor interests. The Act provides for, among other things, the licensing of dealers, and for powers to curb excessive speculation, insider trading and market manipulation.
1974	The government sets up the FIC to monitor the flow of funds into the country. The establishment of the committee is mainly for the purpose of formulating policy guidelines on foreign investment in all sectors of the economy as well as monitoring the progress and resolving the problems relating to foreign private investment in the country. The FIC is situated within the Economic Planning Unit (EPU) of the Prime Minister's Department.
1983	The SIA repeals the 1973 Act, and statutory recognition was given to the CIC as the main authority that approves listing on KLSE and advises the MOF on capital market industry issues. This new Act enhances the supervision and control of the industry by regulating the operations of capital market intermediaries, prohibiting market manipulation and empowering the MOF with further supervisory authority over the exchange.
1986	Further amendments to the SIA, which includes the stipulation that a dealer's licence could only be held by corporations, among other things. This leads to the corporatisation of the stockbroking companies.
1987	The enactment of the <i>Malaysian Code on Take-overs and Mergers 1987</i> under the CA.
1989	The BAFIA becomes law, providing for the licensing and regulation of the activities of financial institutions such as finance companies, commercial and merchant banks, insurance companies, discount houses and other institutions that provide money-broking services. BNM is appointed as the custodian to the Act.
1991	The Securities Industry (Central Depositories) Act 1991 (SICDA) is promulgated. This Act allows for the maintenance and operation of a central depository system. The ROC is named as the enforcer and custodian of SICDA.
1993	The SCA is passed. This brings about the formation of the SC as a statutory regulatory body for the capital market. The functions of the SC are provided for under the SCA. Consequential amendments are made to the SIA, removing references to the CIC and at the same time giving recognition to the SC as the regulatory body. The Licensing Officer (LO) is also established within the MOF as the issuer of licences. The FIA is also passed, providing for the establishment of futures exchanges and regulation of the trading in futures contract. The SC also becomes the sole regulator of the futures market.
1995	Amendments are made to the SCA and FIA. The amendments in the SCA mark the first move of the regulatory regime towards a disclosure-based approach. It provides for a "due diligence" requirement on corporations, its officers and experts in capital market proposals. It further provides for criminal liability in offences related to capital market proposals, as well as provides for enhanced supervisory functions with regard to licensed persons to promote and maintain the integrity of licensed persons. This is consequent to the amendments to the SIA, which among other things, transfers licensing powers of the LO to the SC. Amendments to the FIA redefine the concept of "futures contracts" for the purpose of regulatory certainty. OTC markets would also come under the regulatory purview of the Act. The amendments also facilitate the establishment of the MDCH and transfer licensing powers of futures intermediaries to the SC.
1996	Amendments to the CA make the SC the sole regulator of the unit trust industry. Prior to this, the supervisory function over the unit trust industry is shared between the SC and ROC. The SICDA and SIA are also amended. The SICDA amendments made the SC the sole authority that regulates the CDS. Prior to this, some regulatory functions over the central depository were concurrently performed by the SC and the ROC. Amendments to the SIA, among other things, transfers licensing powers of the LO to the SC.
1997	The Financial Reporting Act 1997 (FRA) comes into force. The Act is promulgated as a measure to bring financial reporting in step with international standards and for effective enforcement. The Act is implemented via the establishment of the Financial Reporting Foundation (FRF) and the Malaysian Accounting Standards Board (MASB) to set reporting and accounting standards.
1998	Amendments are made to SICDA with the view to enhance transparency in share ownership and to require full immobilisation of securities. Amendments are also made to SIA, SCA and FIA, which among other things, seek to increase enforcement powers of the SC.
1999	A new <i>Malaysian Code on Take-over and Mergers 1998</i> is introduced with statutory effect as a subsidiary legislation of the SCA.
2000	Amendments are made to SCA, CA, BAFIA, FIA and SICDA. The amendments of 1 July 2000, make SC the sole regulator for all fund-raising activities and thus the approving authority for prospectuses in respect of all securities, excluding securities issued by unlisted recreational clubs. Through these amendments as well, the SC becomes the sole regulatory authority for the corporate bond market.

Sources: Securities Commission; Bank Negara Malaysia; Kuala Lumpur Stock Exchange

Note: For the sake of exposition, this table does not depict the chronological developments pertaining to the various guidelines

The regulatory framework for PDS was introduced by BNM in 1988 in the form of guidelines for the issuance of PDS. BNM had been the primary regulator of the debt market until the inception of the SC. Thereafter, the debt market was regulated jointly by BNM and the SC. With the amendments to BAFIA and the SCA in July 2000, the SC became the sole regulatory authority with oversight over the corporate bond market.

Prior to the establishment of the SC, the unit trust industry was under the oversight of the ROC and the Informal Committee on Unit Trust Funds (comprising the ROC, the Public Trustee of Malaysia, the Minister of Domestic Trade and Consumer Affairs and BNM). This committee's functions were later assumed by the CIC, which issued the *Guidelines on Unit Trust Funds* in 1991. With the establishment of the SC, the functions of the CIC in relation to the unit trust industry were subsequently taken over by the SC. The SC also regulates the fund management industry: the SIA currently provides licensing provisions as well as reporting requirements and fiduciary obligations of fund managers.

With regards to the futures market, the functions of the Commodities Trading Commission (CTC), the regulator for the commodities market, were assumed by the SC in 1997.

Domestic Overview

Present regulatory structure of the Malaysian capital market

The Malaysian capital market is governed by five major Acts, namely, the SCA, SIA, SICDA, FIA and CA. Table 40 summarises the provisions of these Acts.

Table 40

Malaysian capital market regulatory framework: principal governing acts

Legislation	Regulatory provisions
SCA	<ul style="list-style-type: none"> Establishment of SC, including its functions, membership of the Commission, funding and reporting requirements Requirement for submission of corporate proposals Requirements for submission of proposals in a take-over, merger or compulsory acquisition SC's enforcement powers and related matters
SIA	<ul style="list-style-type: none"> Establishment of stock markets Declaration of recognised clearing house SC to approve rule and amendments to the rules of stock exchange and recognised clearing house Provisions on licencing of intermediaries Compensation fund Trading offences including insider trading Enforcement and investigation powers etc
SICDA	<ul style="list-style-type: none"> Establishment of the central depository SC to approve rule and amendments to the rules of the central depository Regulation to the central depository's operations including matters related to secrecy provisions and rights of depositors Offences Investigation powers of the SC etc
FIA	<ul style="list-style-type: none"> Establishment of futures market Futures contracts Licensing of intermediaries Trading practices Fidelity fund Offences etc
CA	<ul style="list-style-type: none"> Duties of directors and officers of the company Substantial shareholding reporting requirements Winding up of companies, receivers and managers etc

Source: Securities Commission

Note: As of 1 July 2000, the SCA has been expanded to include three new divisions on the regulation of prospectuses, debentures, unit trust schemes and prescribed investment schemes

As a result of efforts to streamline the regulatory structure, there are now five principal authorities involved in regulating the capital market. They are the SC, BNM, ROC, FIC and MITI. Table 41 summarises their functions.

Table 41

Regulatory authorities of the capital market

Regulatory authority	Main regulatory functions in the capital market
SC	<ul style="list-style-type: none"> To regulate all matters in relation to securities and futures contracts To ensure enforcement of securities and futures laws To licence, regulate and supervise the conduct of market institutions and licensed intermediaries To encourage and promote the development of the capital market To advise the Minister of Finance on all matters relating to the capital market industry etc
BNM	<ul style="list-style-type: none"> Regulation and supervision of financial institutions who are exempt dealers under the SIA Approval of issues of securities by financial institutions licensed under BAFIA and control of shareholding in licensed financial institutions
ROC	<ul style="list-style-type: none"> Substantial shareholding reporting requirements Enforcement of offences under the CA which relate to the securities industry
FIC	<ul style="list-style-type: none"> Provides recommendations to the SC on national policy aspects of an acquisition for the purpose of exemptions from the provisions of the <i>Malaysian Code on Take-overs and Mergers</i> Administration of FIC guidelines mainly pertaining to the regulation of merger and acquisition activities, as well as any acquisition of interests or assets by foreign interests in Malaysia
MITI	<ul style="list-style-type: none"> Regulatory approval for issuance of securities by companies regulated by MITI such as manufacturing companies

Source: Securities Commission

In addition to these authorities, market institutions also undertake certain regulatory functions with respect to the particular market segments in which they operate.

As a result of certain overlaps in regulatory jurisdictions, certain areas of oversight fall under the responsibility of more than one authority. In the case of an IPO, for instance, an issuer would need to seek approval from several authorities, other than the SC and the exchange, such as the FIC, BNM, ROC and MITI (Table 42). A similar situation had previously existed in the regulation of corporate bonds. While the SC had been one of the approving authorities for the issuance of bonds by public companies, the bulk of the supervisory responsibilities pertaining to the bond market used to fall under the purview of the central bank, especially in the case of the principal bond dealers, which included discount houses and selected commercial and merchant banks. With the amendments made to the SCA in July 2000, the particular area of overlap in the approval process has been resolved and the SC has been made the sole approving authority for the corporate bond market.

Table 42

Overlaps in regulatory framework pertaining to the issuance of equity shares

Regulatory provisions	Authority responsible
SCA	
<i>Policies and Guidelines on Issue/Offer of Securities</i>	SC
<i>KLSE Listing Requirements</i>	KLSE
<i>MESDAQ Listing Rules</i>	MESDAQ
Exchange Control Act 1953	
Exchange Control Notices	BNM
BAFIA (for issuance by licensed financial institutions)	
FIC Guidelines	FIC
Industrial Co-ordination Act 1975	MITI

Source: Securities Commission

Overlapping jurisdictions and legal powers have also resulted in several areas of enforcement of securities laws falling under the jurisdiction of multiple authorities (Table 43).

Table 43

Certain examples of overlaps in securities laws and rules implementation as at end-June 2000

Regulatory provisions	Overlapping regulatory functions	
Insider trading involving company officers	Governed by the CA (Section 132A), which is enforced by the ROC.	Also governed by the SIA (Section 89E), which is enforced by the SC.
Related party transactions	Governed by the CA (Section 132G), which is enforced by the ROC.	Also governed by sections 111-120 of the <i>Main Board Listing Requirements</i> , which prescribe stringent requirements with regard to related party transactions. Administered by KLSE.
Reporting of substantial shareholding	The CA (Division 3A) has provisions relating to reporting requirements by substantial shareholders, which are enforced by the ROC.	The Securities Industry (Reporting of Substantial Shareholding) Regulations 1998 has similar provisions and enforced by the SC.

Source: Securities Commission

Note: Different regulatory bodies/institutions may have different limitations with regards to enforcement powers as implied by the governing acts/rules

Merit-based regulation and disclosure-based regulation

As early as 1995, the SC had mooted the idea of shifting from a merit-based regulatory regime towards DBR. The regulatory framework of the capital market previously reflected a merit-based regulatory regime. A shift in the SC's regulatory philosophy was effected in 1996 with the phased approach towards a disclosure-based regulatory framework. The SC envisioned the move towards DBR taking place in three phases.

While Phase 1 involved the gradual introduction of greater transparency and disclosure standards, the implementation of Phase 2 in the shift towards DBR involves reducing SC's involvement in a number of areas such as the pricing of securities offered under the various corporate proposals, the valuation of assets for acquisition purposes and the utilisation of proceeds raised from the issuance of securities. Phase 3 of the DBR programme would see the SC evaluating corporate proposals wholly from the perspective of the quality of information disclosed in public documents. Under this third and final phase of DBR, KLSE would be the approving authority for the listing of securities on the exchange. Merit assessment would not be applied by KLSE in considering applications for the listing of securities, except for IPOs and reverse take-over/back-door listing exercises. This would be in line with international practices. MESDAQ would, under Phase 3 of DBR, be the sole approving authority for the listing of securities on its exchange and undertake suitability assessment on IPOs and reverse take-over/back-door listing exercises.

Table 44 summarise the timeframe for the shift towards a DBR regulatory framework.

Table 44
Shift towards a DBR regulatory regime: timeframe

Phase	Timeframe	Focus
One	1996–99	Flexible/hybrid merit-based regulation with enhanced disclosure, due diligence and corporate governance. Significant events: 1. Removal of the SC's control over pricing of new issues of securities 2. Legislative changes to refine disclosure requirements and accountability.
Two	2000	Partial DBR with further emphasis on disclosure enhancement, due diligence, corporate governance as well as promotion of accountability and self-regulation. Significant events: 1. Reduced involvement of the SC in valuation of assets 2. Removal of the SC's control over pricing for all issues of securities.
Three	2001 onwards	Full DBR with high standards of disclosure, due diligence, corporate governance and exercise of self-regulation.

Source: Securities Commission

In the period 1995–2000, a number of specific measures to improve disclosure standards had also been taken. These are outlined in Table 45.

Table 45

Main steps relating to the shift towards a DBR regime

Date	Actions taken
September 1995	The first amendments to the SCA is designed to act as a catalyst towards the move from a merit-based to a disclosure-based system of regulation. It introduces a duty to act with "due diligence" on the corporation, its officers and experts when submitting information to the SC in capital market proposals and submissions on take-overs and mergers. Also, it introduces criminal liability for offences relating to capital market proposals, take-overs and mergers.
April 1998	Significant amendments are made to the SCA and SIA with the view of bolstering disclosure requirements and SC's enforcement powers. The Securities Industry (Substantial Shareholding Reporting) Regulations is introduced to provide for further transparency in shareholding by substantial shareholders. The amendments to the SIA, among other things, requires additional disclosure from directors and chief executive officers with regards to reporting on securities holding. Amendments to the SICDA broadened the definition of securities and provided for greater disclosure regarding beneficial ownerships.
December 1998	Changes are made to the KLSE <i>Listing Requirements</i> requiring greater transparency with regards to related-party transactions.
January 1999	A new <i>Malaysian Code on Take-overs and Mergers 1998</i> came into effect. The so-called "Code 1998" replaces the 1987 Code, and is designed to increase transparency and minority shareholder protection. The right of the FIC to grant a general offer exemption under the 1987 Code is subrogated to the SC with the aim to enhance transparency and further consolidate capital market regulation. Amendments are also made to the KLSE's <i>Listing Requirements</i> with the view of promoting enhanced disclosure by PLCs on matters relating to mergers and take-overs.
March 1999	The KLSE announces certain measures to be undertaken in order to strengthen the accountability and transparency among PLCs. These mainly include the mandatory quarterly reporting of financial statements by PLCs. The KLSE also announces its intentions of imposing a bar on directors of PLCs from holding more than 10 PLC directorships and 15 directorships in non-listed companies.
May 1999	Amendments are made to the <i>Guidelines on Unit Trust Funds</i> to further improve the process regarding the submission of monthly statistical and compliance returns.
June 1999	The Securities Industry (Compliance with Approved Accounting Standards) Regulations 1999 comes into effect. The regulations are intended to enhance the quality of information disclosed by PLCs in their financial statements and to ensure that accounting standards issued by the MASB are strictly complied with.
July 1999	The SC releases the results of a survey conducted to gauge market response to plans regarding DBR.
December 1999	The SIDC releases a booklet on DBR titled <i>Disclosure-Based Regulation: What Directors Should Know</i> , which is aimed at company directors. The SC amends the <i>Policies and Guidelines on Issue/Offer of Securities</i> , in preparation for the commencement of Phase 2 of the three-stage implementation of DBR in 2000.
March 2000	Pursuant to its <i>Listing Requirements</i> on disclosure, the KLSE issues a practice note to strengthen disclosure requirements for Internet-related businesses and electronic commerce activity.
May 2000	The KLSE sets up a Taskforce on Internal Controls, which will be responsible for the formulation and issuance of the guidance to assist PLCs in the annual reporting of the state of their internal controls. This is implemented with the view of increasing transparency for PLCs' internal controls.
July 2000	Amendments are made to the SCA, making the SC the sole regulator for fund-raising activities and the corporate bond market. The Securities Commission Act (Amended) 2000 amendments provide for enhanced disclosures in any document purporting to be an offer document. The amendment to the Act is complemented by the introduction of a number of guidelines, again, to enhance the disclosure requirements in the issuance of securities, including: <ul style="list-style-type: none"> • <i>Guidelines on the Offering of Private Debt Securities</i> • <i>Guidelines on Contents of Prospectus for Debentures</i> • <i>Guidelines on Minimum Contents Requirements For Trust Deeds</i> • <i>Prospectus Guidelines covering public offerings, abridged and supplementary prospectuses.</i>

Source: Securities Commission

Front-line regulators

As part of the efforts undertaken to establish a DBR regime, the SC has also taken the initiative to highlight the importance of the exchanges in Malaysia as front-line regulators (FLRs). In its *1998-2000 Business Plan*, the SC outlined the strategies to be undertaken in order to redefine the roles and responsibilities of potential FLRs in the Malaysian capital market. Table 46 summarises some key

measures. FLRs are vested with regulatory powers under the relevant securities or futures laws, and this brings with it the responsibility for the regulation and surveillance of securities or futures markets.⁷¹ The SC has formed a special task force to lead the initiative by focusing on developing the KLSE's capacity in undertaking its role as a FLR. A number of measures have been adopted to enhance the role of FLRs.

⁷¹ Securities laws include for instance, the SIA (Section 11).

Table 46

Front-line regulation—some key measures

Date	FLR-related measures
Early 1997	A Joint Audit Committee (JAC) for the derivatives market is formed in early 1997, comprising representatives from KLOFFE, KLCE, MME and MDCH (KLCE and MME merged on 7 December 1998 and is now known as COMMEX). The objectives of the JAC include the standardisation of audit procedures, scope and report, elimination of duplication of audit work by the exchanges on common members, and discussing common matters or issues of concern.
July 1997	MOU on the Joint Committee for Market Surveillance (JCMS) is signed between KLSE and MESDAQ to essentially co-operate in the sharing of information, market surveillance, investigation, audit and such other areas of operations as identified by the members from time to time. Due to the economic crisis, the activities of the FLRs have been focused on the problems faced by the industry. With the aim of strengthening market intermediaries and to increase investor protection, the SC re-initiates the formation of the JCMS for the equities market, which is formalised in the fourth quarter of 1999. In addition to representatives from KLSE and MESDAQ, representatives from SCANS and MCD have also been included to improve the effectiveness of the JCMS. The JCMS is to oversee several sub-committees with specific functions.
September 1998	Amendments are made to SIA, which among other things increases the fine that an exchange may impose for breach of listing requirements, up to RM1 million, as well as clarifies the right of exchanges to enforce its listing rules against directors or any parties to whom the rules or listing requirements are directed at.
December 1998	The SC approves the CAR with the view to refining the prudential benchmark for maintaining better market integrity at the level of the exchange and clearing house.
January 1999	<p>An early warning system for monitoring the Adjusted Net Capital (ANC) of futures brokers is implemented in the derivatives market, based on the role of the members in monitoring their level of ANC. The early warning system acts as a tool for an early detection of problems relating to ANC, and taking appropriate actions to prevent breaches of the minimum ANC requirement, which is a violation of the business rules of exchanges. It may also have implications on the members' licence.</p> <p>The amendments to MESDAQ's <i>Business Rules</i> are initiated following the introduction of the quote-driven trading system, the amendments made to the securities laws and to maintain consistency with the <i>Rules of KLSE</i>—particularly in light of the revised financial requirements, and the incorporation of matters such as branching provisions and the measures to increase transparency and prevention of trading on other markets. The amendments also take into account the feedback received from post-market simulation reviews with members and market makers. The amendments to the MESDAQ's <i>Business Rules</i> are approved by the SC in January 1999.</p>
June 1999	<p>A major overhaul of the <i>Rules of KLSE</i> is conducted to include all the necessary provisions and elements to enable it to function as an effective FLR, whilst rationalising the rules of KLSE and MESDAQ to facilitate a coordinated and systematic application of standards for the industry as a whole. The amendments include:</p> <ul style="list-style-type: none"> • Change in the membership structure of the KLSE • Provisions on Best Sales Practices and Compliance • Appointment of compliance officers • Provisions on enhancing the role of KLSE as a FLR • CAR <p>The amended Rules above come into effect from 1 June 1999, except for CAR, which came into effect from 1 December 1999.</p>
July-August 1999	Steering Committee is set up with the task of developing a <i>Code of Conduct for Market Institutions</i> which is principally aimed at ensuring that regulatory decisions are not unduly influenced by conflicts of interest. The code is expected to set general standards of conduct for market institutions, their management and their staff.
October 1999	The appointment of compliance officers in both the KLSE and the MESDAQ markets has been set in motion to ensure investor protection and market integrity. Like its counterpart in the derivatives market, a compliance officer will be responsible for securing effective internal controls, and an active segregation of duties between trading and operational functions within a stockbroking company. In addition, the <i>KLSE-MESDAQ Joint Guidelines for Compliance Function</i> have been formulated to provide guidance on the requirements of a stockbroking company's supervisory and compliance function. The above provisions were approved during the first quarter of 1999 and were fully implemented on 1 October 1999.
December 1999	<p>CAR comes into effect to replace the <i>Minimum Liquid Fund (MLF) Requirements</i>. The new rules on CAR is to focus on ensuring that stockbroking companies' financial resources and capital should be maintained in a readily liquid form to meet the sum of their individual risk areas. With CAR in place, the KLSE, in tandem with the SC, began to monitor the CAR ratios of stockbroking companies daily. The monitoring is complemented by weekly monitoring of the Margin Financing Capital Adequacy Risk Framework (MFCAR).</p> <p><i>Compliance Guidelines for Futures Brokers</i>, developed by COMMEX, KLOFFE and MDCH based on the guidelines issued by the KLSE and MESDAQ and in consultation with the SC also took effect. The Compliance Guidelines were intended to enhance and reinforce the compliance culture among the members of the exchanges.</p>

Source: Securities Commission

With the completion of the pilot project involving KLSE as well as the progression towards Phase 3 of the implementation of the DBR, MESDAQ and KLSE are expected to be the sole authorities responsible for the approval of securities listing on their

respective exchanges. Both MESDAQ and KLSE will also undertake suitability assessments on IPOs and reverse take-over/back-door listing exercises, as opposed to the current arrangement in which such responsibilities are shared with the SC.

International Landscape

Regulatory reform efforts and different approaches to regulation

There have recently been a number of efforts in various jurisdictions, such as the UK and Hong Kong, towards reforming the legal and regulatory framework with regards to the capital market and even the financial sector as a whole. While the debates surrounding reforms tend to reflect the currently prevailing institutional structure in the various countries, the roots of such recent debates can mostly be pinned down to a number of general factors:

- In many countries, the structure of regulatory agencies was devised for a different financial system structure than the extant one, and structural change and financial innovation have challenged many of the assumptions made at the time those structures were created. In a number of cases, this has been seen to raise the issue of whether institutional structure should mirror the evolution of the financial system and the business of regulated firms
- Over time, in many instances, changes in institutional structure have arguably been made as a response to a particular financial crisis, and thus, a pragmatic piecemeal structure has been said to emerge
- Financial innovation and the emergence of new financial markets have added to the complexity of the financial markets in general as well as the risk characteristics of financial firms. In particular, the systemic dimension to regulation and supervision may no longer be exclusively focused on banking
- Increasing internationalisation of financial operations has been seen to accentuate the international dimension to regulation and this has implications for the institutional structure of agencies at both national and international levels

While the attempts to reform legal and regulatory frameworks have varied across jurisdictions, existing regulatory structures currently practised across the

world tend to fall into three broad approaches to regulation as described in the next section.

Existing regulatory frameworks

A range of approaches to regulation is currently in place across different jurisdictions. In Australia, for instance, the regulatory framework is based on the separation of prudential and product regulation, which falls under the purview of the Australian Prudential Regulation Authority (APRA) and the Australian Securities and Investments Commission (ASIC) respectively. Hong Kong, on the one hand, relies on the Securities and Futures Commission (SFC) which is an independent and self-funding statutory regulator that involves SEHK in the supervisory framework as a self-regulatory entity under its oversight. Singapore on the other hand, has the regulation of bank and non-bank financial institutions as well as the capital market consolidated under the purview of the Monetary Authority of Singapore (MAS). Table 47 describes these three approaches to regulation.

Table 47
Three approaches to regulation

Regulatory approach	Description
Institutional regulation	Regulation by types of institutions, where the regulation applicable would depend on the institution being governed. In the institutional approach, regulation is directed at financial service providers irrespective of the mix of business undertaken.
Functional regulation	Regulation by type of activity, where regulation would be made on a "functional" basis. Functional regulation could be implemented on the basis of the different types of services offered in the financial market, as can be seen in the US where different regulatory bodies catering for the different types of financial activities such as securities and banking services. In the case of Australia, on the other hand, functional regulation is implemented along the lines of regulatory objectives, which are segmented into the protection of systemic stability, prudential supervision and consumer protection, and conduct of business regulation. Therefore, in this case, functional regulation focuses on the business undertaken or regulatory objectives concerned irrespective of which institutions are involved. This approach requires specialist regulators.
Single-regulator approach	This approach entails the consolidation of all regulatory organisations and bodies in one authority that will assume the responsibility of regulating the full range of financial services and markets.

Source: Securities Commission

⁷² Source: Arthur Andersen.

⁷³ There are circumstances, however, in which, the requirement that the FRB defer to functional regulators does not apply. The FRB is allowed to investigate functionally regulated financial entities in the following three cases:

- There is a reason to believe that the entity is engaged in activities that could pose risk to an affiliated depository institution
- It is necessary to inform the FRB about the risk management system of the company
- The FRB has reasonable cause to believe that the entity is not in compliance with the banking laws.

Source: *International Capital Markets: Developments, Prospects, and Key Policy Issues* by International Monetary Fund, September 2000.

The following are selected details on several recent efforts in reforming the legal and regulatory framework for the capital market and/or the financial system.

- The functional regulation approach in US

The enactment by the US Congress of the Gramm-Leach-Bliley Act marked an adoption of a functional regulation approach to the regulation of financial services. While repealing the Glass-Steagall Act 1933 that imposed restrictions on the affiliations between banks, insurance firms, securities firms and the various financial service providers, the Gramm-Leach-Bliley Act also contains new elements that reflect the current nature of the financial system. One of the main provisions of the Gramm-Leach-Bliley Act calls for the formation of a new financial holding company, an avenue for banking organizations to engage in all kinds of financial activities as well as affiliate themselves with all kinds of financial companies. It also provides for, *inter alia*, increased competition in the provision of financial services, as well as for the supervision by regulators with specialised knowledge of the complex financial products offered by banks, securities broker-dealers and other non-bank intermediaries.⁷²

One of the main results of the Gramm-Leach-Bliley Act is the termination of the broad exemption previously enjoyed by commercial banks from being registered as broker-dealers. The Act requires that commercial banks wishing to offer underwriting and dealing services alongside other securities market activities—such as brokerage services, margin lending and investment advice—must establish a securities broker-dealer affiliate or subsidiary that is registered and supervised by the Securities and Exchange Commission (SEC).

One of the main impacts of the Gramm-Leach-Bliley Act is to increase the powers of the functional regulators with regards to regulating the different financial service providers. Equally notable is the fact that the Act implies a reduction in the powers of the Federal Reserve Board (FRB). Under the new legislation, the FRB must defer to the functional regulators of holding company subsidiaries in the

regulation of such subsidiaries, as well as refrain from imposing capital requirements on subsidiaries that are in compliance with requirements already imposed by the functional regulators. For example, a financial holding company that is overseen and regulated by the FRB may own a bank that is supervised by the Office of the Comptroller of the Currency, a securities firm that is overseen by the SEC and an insurance company under the authority of the state insurance regulator.⁷³ This new arrangement is hoped to limit the potential for duplication of the regulatory functions performed by functional regulators, which among others, include the establishment of prudential standards for holding company subsidiaries.⁷⁴

- The single-regulator approach in UK

Prior to 1987, the regulatory needs with regards to the capital market were catered for by way of self-regulation. This reliance on the traditional practitioner-based self-regulation came to an end when the Financial Services Act was passed in 1986. This Act provided for the creation of a self-funded regulatory body called the Securities and Investments Board (SIB). Following general elections in 1997, major policy initiatives were undertaken by the government to reorganise the institutional structure of financial regulation by consolidating all regulatory agencies in the financial services industry into one single authority. As a result, SIB was renamed the Financial Services Authority (FSA) in October 1997.⁷⁵

Efforts toward consolidating all regulatory functions arose, among other things, from the confusion and inefficiencies perceived in having a myriad of regulators, which included self-regulatory organisations (SROs) under SIB.⁷⁶ This was due to the formalised structures of the SROs undertaking quasi-regulatory functions which overlapped with the regulatory functions of the SIB. The concept of a single regulator was also to bring a degree of consistency to the regulatory system, reduce the number of regulators and clarify their responsibilities and accountability, reduce the number of contact points in the system, and make international agreements easier to reach.⁷⁷

⁷⁴ See footnote 73.

⁷⁵ Source: Financial Services Authority.

⁷⁶ These included the Investment Management Regulation Organisation (IMRO), which was responsible for fund management firms and participants; Personal Investment Authority (PIA), which was responsible for independent financial advisers who advise on retail investment products or act for private investors; and the Securities and Futures Authority (SFA), which regulated markets, corporate finance specialists and off-market traders. The SIB was responsible for these three SROs, six investment exchanges, two clearing houses and nine professional bodies, that is, 20 front-line regulators or "recognised bodies".

⁷⁷ In particular, there is also the belief that the breaking down of barriers between institutions and financial products will increase cost and reduce the effectiveness of supervision.

With the Royal Assent given to the Financial Services and Market Bill in June 2000, the FSA received the full powers necessary to play the role of a single regulator for all financial services.⁷⁸ The passing of the Financial Services and Market Act 2000 also transformed the FSA into the “broadest financial regulator in the world combining prudential, conduct of business and market conduct regulation across the full range of financial services, including banking, securities, investment management and insurance”.⁷⁹ The Chancellor of the Exchequer, Gordon Brown, when first announcing the creation of the FSA, in his *Statement to the House of Commons* on the Bank of England in May 1997, envisioned that nine regulatory organisations would be brought together in a single regulatory authority:

- Bank of England’s Supervision and Surveillance Division
- Building Societies Commission
- Friendly Societies Commission
- Insurance Directorate of the Department of Trade and Industry
- Investment Management Regulation Organisation (IMRO)
- Personal Investment Authority (PIA)
- Registrar of Friendly Societies
- Securities and Futures Authority (SFA)
- Securities and Investments Board (SIB)

The regulatory response in the UK has also been to move towards a “risk-based” approach. Differentiated standards are intended to reflect the risks of particular firms and markets, and the quality of a firm’s management controls, thus providing incentives for the proper conduct of business. Emphasis is given to senior management responsibility to ensure financial soundness and proper conduct of business. In particular, the regulatory approach is aimed at making a distinction between regulation of wholesale and regulation of retail businesses, so as to reflect the differing levels of expertise of the consumers and their relative need for protection.

- Hong Kong’s regulatory consolidation

In Hong Kong, efforts are being made to consolidate eight of the nine principal ordinances applicable to the various parts of the financial services industry, into a single piece of legislation. The government is moving towards rationalisation of its companies’ legislation for purposes of simplification and modernisation. Of significance is the proposal to remove all provisions relating to securities regulation, charges, insolvency, not-for-profit organisations, as well as provisions relating exclusively to authorised financial institutions. Generally, a functional approach to regulation is adopted over the financial system where the Hong Kong Monetary Authority (HKMA) oversees the banking system, and the SFC oversees the capital market and licensing of all entities, including banks operating as capital market intermediaries.

- Moves toward reforms in Australia

In Australia, questions related to the institutional structure of financial regulation were the main agenda of the Wallis Committee, whose recommendations were given in the *Australian Financial System Inquiry Report*, more commonly known as the *Wallis Report (1996)*. The stated objective is to ensure that regulation is flexible and responsive to the changing financial environment, and standardised across the industry in recognition of the diminishing distinctions between the providers of financial services.

For the regulation of capital markets and provision of consumer protection, the ASIC was given comprehensive responsibilities for market integrity and consumer protection, as well as oversight of corporations generally across the financial system. Its functions include establishing a consistent and comprehensive disclosure regime for the whole financial system, regulating advisory services and sales of retail financial products, licensing financial advisers under a single regime, and overseeing

schemes for complaints and dispute resolution for consumers. ASIC has oversight of industry initiatives for consumer protection in the areas of new technology in the finance sector and ensures that such initiatives develop in a co-ordinated way.

The possibility of self-regulation is not discounted, and ASIC is given broad and flexible powers in relation to industry and may adopt industry codes or delegate authorisation powers to industry bodies. It is also equipped with considerable enforcement powers, powers of information gathering, powers to impose administrative sanctions, and the powers to initiate civil actions, including punitive and remedial court orders.

The *Wallis Report* also upholds the principle of “competitive neutrality” and in doing so, recommends a standardised regime for the authorisation of financial exchanges. Additionally, the definition of “securities” and “futures” would be replaced by a broad definition of “financial products” so as not to allow technicalities to exclude any financial exchange from being able to offer the products.

TECHNOLOGY AND E-COMMERCE

Background

The use of technology within the Malaysian capital market is, in many areas, already quite extensive. Many key aspects of the capital market infrastructure, such as trading, clearing, settlement and depository systems, had already moved to electronic platforms by the beginning of the 1990s. For instance:

- The KLSE's enhanced trading system, SCORE was introduced in 1989, initially as a semi-automated trading system to replace the open outcry system. Order-entry was automated whilst matching remained manual. In October 1992, fully automated trading was introduced
- In 1987, KLSE introduced MASA, a real-time price quoting system. It not only displayed real-time orders, prices and trades, but also disseminated corporate and economic news as well.⁸⁰ The system was further enhanced in 1990 with MASA II, which was subsequently replaced by WinStock, a more integrated Windows-based information system in 1994
- The KLSE's clearing system was computerised with the establishment of a central clearing house, SCANS, in 1984
- A computerised book entry system was implemented in 1993 and forms the basis of the CDS. It replaced the practice of holding and moving physical scrip
- In 1999, the MCD introduced MCD Call-Direct, an interactive voice response system that allows users to obtain their CDS account balances via telephone
- In the area of IPOs, electronic share application was introduced in 1999 that allowed for share applications through banks' automated teller machines

- In the bond market, FAST was launched by BNM in 1996 to replace the tender form submission used by principal dealers in bidding for MGS, Cagamas bonds, Malaysian treasury bills, Bank Negara Bills and government investment issues. In addition, BIDS is now linked to the RENTAS system, a real time gross settlement system (RTGS), for settlement of transactions

The nature of technology and its application to financial activity have undergone radical changes in the last decade, to the extent that information and communication technology is driving significant innovations in the financial services industry at an accelerating pace. The Internet, in particular, now offers unprecedented immediacy, flexibility and cross-border interactivity at relatively low cost.

Although electronic commerce (e-commerce) in the Malaysian capital market has yet to fully take-off, there are some indications that this segment of market activity is set to grow.⁸¹ For instance, electronic broker-client linkages are being re-introduced to the market in the form of online Internet-based facilities. Such linkages initially took the form of proprietary systems, whereby stockbroking companies provided share trading, investment information and other services through systems that involved closed-system protocols. However, with the advent of Internet technology, the use of web-based applications for online trading has increased. The first such service in Malaysia was introduced in 1999, and there are currently 14 online broking services currently in operation as of end-September 2000. Recently, at least one broking firm has introduced order-routing via Wireless Application Protocol (WAP) enabled mobile phones.

KLSE and MESDAQ actively use the Internet to disseminate market information about their listed companies. KLSE LINK was established to enable all announcements made by KLSE-listed companies to be made available on KLSE's website. Supercomal Technologies Bhd, the first company to list on MESDAQ, posted its prospectus on MESDAQ's website in 1999. It is believed that this electronic prospectus constitutes a first in the region. Online trading quotes for KLSE are made available on the Short Message System (SMS) and via WAP technology.

⁸⁰ MASA is the short form of *Maklumat Saham*, which means "share information" in Bahasa Malaysia.

⁸¹ E-commerce is broadly defined as the use of IT to effect linkages among functions provided by participants in commerce. The term describes technology platforms that allow the transfer and dissemination of information to a wider number of users within and between networks; the execution of trade and other transactions without the need for parties to the transactions to be physically present at the same location; and the distribution or delivery of services and products in electronic form, such as software products offered by software vendors on the Internet. (Source: Securities Commission's consultation paper on the *Framework for the Implementation of Electronic Commerce in the Capital Market*.)

Relevant regulations and guidelines have been introduced to facilitate e-commerce trading in the domestic capital market. Since 1995, KLSE member companies who wish to provide electronic means of routing orders from its clients, whether through proprietary or open systems, must comply with the *Guidelines on Electronic Client-Ordering System* for KLSE Member Companies. To facilitate a conducive e-commerce environment, SC had also issued a policy statement on *Primary Offers of Securities via the Internet* and a consultation paper on the *Framework for the Implementation of Electronic Commerce in the Capital Market*. The consultation paper addresses several areas, including trading infrastructure (order-routing, clearing and settlement and straight-through processing [STP]) and regulatory infrastructure issues (associated with electronic issues or offer of securities, and electronic dealing in securities, fund management and investment advisory business). Recommendations presented in this paper in relation to facilitating e-commerce activity in the capital market form the basis of some of the recommendations in the Masterplan.

Domestic Overview

Market infrastructure

KLSE's trading system

KLSE's trading system comprises the SCORE and WinSCORE. SCORE is the central computer engine responsible for the matching of all orders. WinSCORE, the broker front-end trading system, enables each dealer to have a single integrated workstation that incorporates order-entry, trade routing, trade confirmation, and real-time market information, and facilitates credit risk management by enabling real-time monitoring of dealers' and broking companies' risk exposure. Orders from investors can be routed from the front-end Internet system attached to the Electronic Client-Ordering System (ECOS) of the broker firm. The network of electronic systems connecting brokers and the exchange is based on a proprietary communications protocol.

The *Rules of KLSE* currently restrict the establishment of any form of electronic system capable of routing orders directly from the investors into the SCORE system, and a dealer and/or remisier has to manually execute the transaction order into the SCORE system.⁸² In US, for instance, this procedure can be automated whereby the trade is electronically routed directly to the exchanges without the need for manual intervention by the broker as soon as the investor places his order. In Hong Kong, the newly implemented AMS/3 Open Gateway Interface Specification for Broker Supplied System, allows for automatic order distribution, automatic approval and electronic workflow support.

MESDAQ's trading system

MORE! was launched in July 2000 to replace the MESDAQ Quotation System (MQS). Unlike the MQS, MORE! allows brokers to route orders directly to MESDAQ. Currently, it allows the investor to trade MESDAQ-listed counters by routing the order via participating broker firms' MORE Front End (MFE) system through the telephone (the net-enabled MFE is expected to be available in the near future), or via participating broker firms' ECOS through the telephone and the Internet. However, the orders have to be keyed in by approved brokers, and routed to MESDAQ for confirmation. The operating platform of MORE! is modular, scalable, and is built on open standards and open specifications. The system is Transmission Control Protocol/Internet Protocol (TCP/IP) compatible and hence, this allows MESDAQ to link seamlessly with the ECOS of its members. MESDAQ has also adapted the Financial Information eXchange (FIX) protocol as a messaging standard developed for real-time electronic exchange securities transactions.

KLOFFE's trading system

KLOFFE operates a fully automated trading system, the KLOFFE Automated Trading System (KATS). KATS is based on the Eurex Deutschland trading system but has been substantially adapted to meet the requirements of the domestic market. The KATS system takes into consideration, amongst other features, scalability and expandability concepts.

⁸² Rule 5.1.6. (1) of the *Rules of KLSE* states that "No person other than Automated Trading System Operators shall make any order entry into the system. These Operators are defined as "In relation to a Member Company, means Dealer's Representatives who are duly authorised by the Member Company *inter alia* to make entry of orders into SCORE and for that purpose, has been given a unique personal identification number by the exchange pursuant to Rule 5.1.6 (2), and includes such other persons who are authorised by the Member Company to operate any other facilities or any part of the systems which form the Automated Trading System".

MDCH's risk management system

A key aspect of MDCH's risk management system includes the risk-based margining system known as the Theoretical Intermarket Margining System (TIMS) developed by the Options Clearing Corporation (OCC) of the US to measure financial and market risk inherent in clearing members' portfolios and to assign margin requirements accordingly. The personal computer version is used in Malaysia. TIMS is widely utilised in various platforms by exchanges and clearing houses worldwide.⁸³

Debt securities tendering and settlement systems

The market infrastructure for debt securities consists of several distinct yet integrated components. BIDS is a computerised centralised database on Malaysian debt securities, which provides information on the terms of issues, real-time prices, details of trades done and relevant news on the various debt securities issued by both the government and the private sector. However, only commercial banks, merchant banks, Tier-1 finance companies, discount houses, Cagamas Berhad, the rating agencies, money brokers, insurance companies and other market participants, as approved by BNM, are eligible to be members of BIDS. FAST is an automated system for invitations to tender, submission of bids, processing of tenders and the dissemination of bid results. Members of FAST can access information on the forthcoming tenders, which includes the type of security, tender date, issue date, maturity date, issue amount and other details relating to the issue. Membership in FAST is restricted to commercial banks, merchant banks, discount houses, development banks, insurance companies, statutory bodies, other financial bodies and other market participants, as approved by BNM.

FAST and BIDS are integrated (BSIS module) to remove re-input of information and to make the systems more user-friendly. BIDS is linked to the

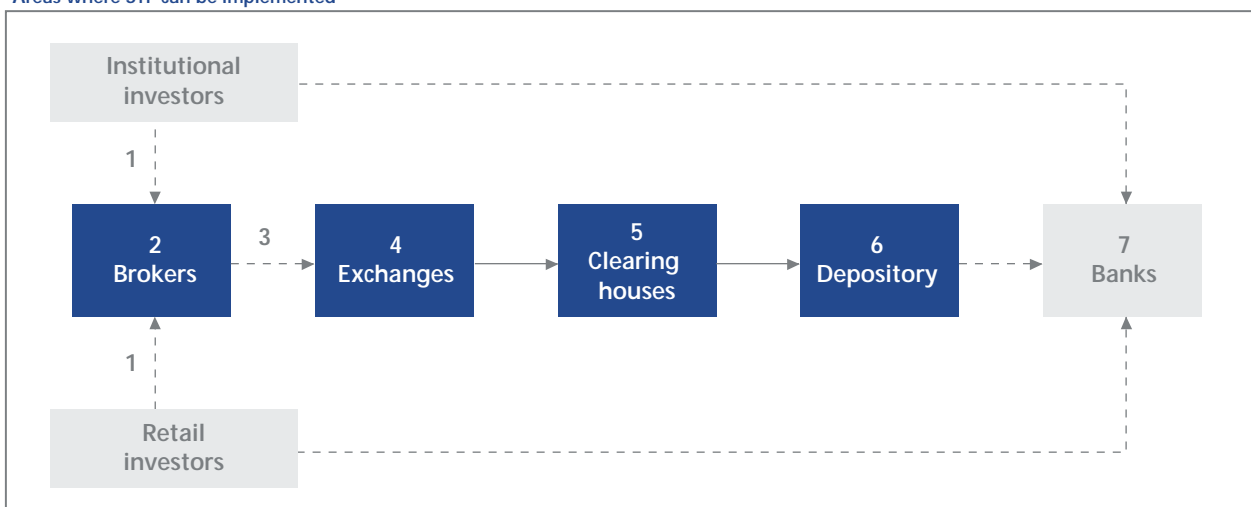
RENTAS. Under RENTAS, transactions are processed and settled individually and continuously throughout the working day; all settled transactions will be considered as final and irrevocable. RENTAS has the capacity to handle a higher volume of transactions compared to the previous system, Sistem Pemindahan Elektronik untuk Dana dan Sekuriti (SPEEDS). The RENTAS system incorporates better security features through the use of smart cards for authentication and transmission. It caters for the partial redemption, multiple interest payments and re-opening of the existing stock, which SPEEDS could not accommodate. The system has also made provisions for international linkages to facilitate real-time DVP should the need arise in the future. The RENTAS utilises COINS (Corporate Information Superhighway, a nationwide broadband network that supports multiprotocol and multimedia applications). Membership to the RENTAS system is restricted to financial institutions licensed under the BAFIA.

Issues concerning straight-through processing in the Malaysian capital market

The creation of STP-compliant market players essentially requires a workflow structure that incorporates extensive use of technology, for example, to communicate orders, disseminate real-time information, settle trades, and eliminate duplication of work, such as, the need for re-keying orders and executions. In particular, the establishment of STP would have to consider the development of a variety of specialised systems that form the building blocks of STP. New business developments may be introduced, such as the outsourcing of back office operations.

Figure 102 and Table 48 summarise the issues faced in order to achieve STP.

Figure 102
Areas where STP can be implemented



Source: Arthur Andersen

Table 48
Issues facing implementation of STP in Malaysia

Area	Parties	Challenges
1	Investors and brokers	Implementation of online broking.
2	Brokers	IT systems of intermediaries are not sufficiently developed to enable STP within their organisations, particularly, for the back office systems.
3	KLSE and brokers	Order routing from the investor to the exchanges requires manual intervention by brokers.
4	KLSE, MESDAQ, KLOFFE and COMMEX ^a	KLSE, MESDAQ and KLOFFE operate on separate electronic trading platforms. They have different outlays, protocols, interfaces and front-end systems. Foreign orders for instruments listed on domestic exchanges need to be routed through domestic intermediaries.
5	SCANS and MDCH	There are separate clearing systems for the equities and derivatives markets
6	MCD	Absence of a global depository account requires investors to maintain separate accounts with each broker.
7	Banks	Establishing more direct linkages between the capital market clearing and settlement system, and corresponding payment system to facilitate online transmission of money settlement via electronic links to banking institutions and other payment sources.

Sources: Securities Commission; Arthur Andersen

Note: a) COMMEX continues to support an open outcry system, although trade information is electronically disseminated and transmitted to relevant institutions

International Landscape

Developments in the capital markets

Table 49 briefly summarises some of the e-commerce and technology developments, and their impact on the capital markets of developed countries.

Table 49
Summary of selected e-commerce and technology developments

Area	Developments
Market institutions	<ul style="list-style-type: none"> • ATS, eg ECNs • Remote access membership
Equity market	<ul style="list-style-type: none"> • Online IPOs • Use of the Internet to match investors with entrepreneurs
Bond market	<ul style="list-style-type: none"> • Online bond offerings • Online trading
Derivatives market	<ul style="list-style-type: none"> • Placement of terminals in other derivatives markets • Online trading
Investment management	<ul style="list-style-type: none"> • Online distribution of fund management products and services • Investment and financial portals
Stockbroking industry	<ul style="list-style-type: none"> • Online broking • STP efforts • Investment and financial portals

Source: Securities Commission

Global straight-through processing developments

Investment managers, broker dealers and custodian banks have identified STP as one of their main priorities. In US, it is estimated that most significant STP-related improvements have been achieved by 45% of the securities firms.⁸⁴ In Hong Kong, STP is identified as one of the key initiatives under the "eInfrastructure" plan.⁸⁵ The Society for Worldwide Interbank Financial Telecommunication (SWIFT) estimates that Hong Kong's STP rates are approximately 40-45% which are comparable with Singapore, but are below the rates in Australia and Japan.⁸⁶

Various global market players, such as investment managers, broker dealers and custodian banks, have established the Global Straight Through Processing Association (GSTPA) to co-ordinate work towards an infrastructure and standards to enable STP to be implemented across markets for post-trade and pre-settlement activities of cross-border institutional securities trading. Some of the primary objectives are to accelerate the flow of cross-border trade

information, and reduce the number of failed cross-border trades, the level of risks, inefficiencies and costs of cross-border trade settlements. Settlement failure rates remain as high as 20% for cross-border trades.⁸⁷ It has been estimated that the current trade discrepancies during the trade confirmation process, for example, could be significant, up to 33%.⁸⁸ Furthermore cross-border trades are expected to increase significantly. GSTPA had estimated that there were approximately 200,000 cross-border trades per day in 1998 and this is expected to increase to 600,000 trades per day by 2002.⁸⁹

GSTPA also aims to move towards T+1 in the near future. One part of the solution proposed by GSTPA is to adopt multilateral interconnectivity and the Transaction flow managers (TFMs) that pre-match transaction to reduce the risk of settlement failure. GSTPA also supports a convergence of standards. It has been proposed that the International Securities Identification Numbers (ISIN) be used to identify securities, Bank Identifier Codes (BIC) to identify financial institutions, ISO 15022 Data Dictionary for data syntax and format, and Extensible Markup Language (XML) as the technical message standard.⁹⁰

⁸⁴ Source: "STP trends and progress report for Investment managers, Brokers/dealers, and Custodian Banks" by Dushyant Shahrawat, TowerGroup, <http://www.wstonline.com/>, 27 June 2000.

⁸⁵ Source: "Report on the Enhancement of the Financial Infrastructure in Hong Kong - An eInfrastructure for a Leading eEconomy" by the Steering Committee on the Enhancement of the Financial Infrastructure Hong Kong, September 1999.

⁸⁶ See footnote 85.

⁸⁷ See footnote 84.

⁸⁸ Source: "Introduction to Global Straight Through Processing Association" by Global Straight Through Processing Association, September 1999.

⁸⁹ Source: Global Straight Through Processing Association.

⁹⁰ See footnote 89.