



**UNIVERSITI PUTRA MALAYSIA**

**THE ASSET PRICING AND BID-ASK SPREAD: AN EMPIRICAL  
EVIDENCE BASED ON THE KLSE MARKET**

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**By**

**LEE SAY OH**

**Thesis Submitted in Fulfillment of the Requirement for the  
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**Faculty: Economics and Management**

Asset pricing theories, particularly the Capital Asset Pricing Model (CAPM) asserts that the expected returns on any particular capital asset consists of only two components, namely the returns on a risk-free security and a premium for the risk. This study reexamines the CAPM by incorporating two important variables, namely the bid-ask spread as a measure of the transaction costs and firm size to test on the validity of both variables in the equilibrium asset returns model. Using the Generalized Linear Regression method as described in Kmenta (1986), this study finds a positive significant relationship



between the stock returns and bid-ask spreads as a measure of the transaction costs for all the three regression models, namely all-companies, average-size companies and ten size-sorted portfolios models. The findings confirm the theoretical conjecture that bid-ask spreads are priced in the asset returns, and stocks with higher bid-ask spreads carry a liquidity premium in their prices. The results suggest that by decreasing the transaction costs will generate a greater order flow, which in turn increase the frequency of the market. Nevertheless, the negative relation between the firm size and stock returns can only be found in two out of the three regression models, that is, the all-companies and average-size companies models. The results corroborate previous studies where small firm anomaly exist in the asset pricing model in the KLSE market. However, the size effect is found to be insignificant in explaining the portfolios returns in the ten size-sorted portfolios model. Thus, this study evidenced the ability of the spread variable in explaining the variation in the stock returns as compare to the firm size variable in the KLSE market.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi sebahagian keperluan untuk Ijazah Master Sains.

**PENENTUAN HARGA ASET DAN PERBEZAAN HARGA  
JUAL-BELI : SATU PENGALAMAN EMPIRIKAL  
BERDASARKAN PASARAN BSKL**

Oleh

**LEE SAY OH**

**Mac 1998**

**Pengerusi:       Profesor Madya Dr. Ahmad Zubaidi Baharumshah, Ph.D.**

**Fakulti:         Ekonomi dan Pengurusan**

Teori-teori penentuan harga aset, terutamanya *Capital Asset Pricing Model* (CAPM) yang menyarankan bahawa pulangan jangkaan bagi sesuatu aset kapital mengandungi dua komponen, iaitu pulangan ke atas sekuriti tanpa-risiko dan premium untuk risiko aset tersebut. Penyelidikan ini mengkaji semula model CAPM dengan menambah dua pembolehubah penting, iaitu perbezaan di antara harga jual-beli sebagai satu ukuran kos urusniaga dan saiz firma untuk mengkaji kepentingan kedua-dua pembolehubah tersebut di dalam model keseimbangan pulangan aset. Dengan menggunakan Model Regresi Secara Umum yang diterangkan dalam Kmenta (1986), keputusan kajian ini menunjukkan bahawa



terdapat hubungan positif di antara pulangan stok dengan perbezaan harga jual-beli sebagai satu ukuran kos urusniaga dalam ketiga-tiga model regresi, iaitu model bagi semua-syarikat, saiz-purata syarikat, dan sepuluh portfolio yang dibezakan mengikut saiz syarikat. Keputusan kajian ini sejajar dengan jangkaan teori yang menyatakan bahawa perbezaan harga jual-beli adalah salah satu penentu pulangan aset, dan stok-stok yang mempunyai perbezaan harga jual-beli yang tinggi membawa premium kecairan dalam harga mereka. Keputusan kajian ini mencadangkan bahawa aliran pesanan dalam pasaran dapat ditingkatkan dengan mengurangkan kos urusniaga, dan seterusnya dapat menambah bilangan urusniaga dalam pasaran. Sementara itu, hubungan negatif antara saiz firma dan pulangan stok hanya boleh didapati pada dua dari tiga model regresi, iaitu model bagi semua syarikat dan saiz-purata syarikat. Keputusan ini sejajar dengan kajian lepas yang menyatakan bahawa “anomaly” syarikat kecil wujud dalam model penentuan harga di pasaran Bursa Saham Kuala Lumpur (BSKL). Akan tetapi, kesan saiz ini tidak dapat dibuktikan dalam model sepuluh portfolio yang dibezakan mengikut saiz syarikat. Oleh itu, kajian in telah menunjukkan kelebihan pembolehubah bagi perbezaan harga jual-beli dalam menerangkan variasi pulangan stok dibandingkan dengan pembolehubah saiz firma dalam pasaran BSKL.

# CHAPTER I

## INTRODUCTION

Capital market plays a crucial role in the Malaysia's economic development. It provides access to medium and long term funds which are essential for sustained economic growth. The capital market acts as financial intermediary that bring together investors who are willing to take risks for larger returns and entrepreneurs that structure financing packages to match the needs of their enterprises. In this respect, the market provides capital needed for development and complement the role of commercial banks by pooling savings and making them available for investments.

In Malaysia, the capital market transacts all public and private debt instruments with maturity exceeding one year, corporate stocks and shares, for which there is no maturity period, and more recently commodity futures. Funds raised in Malaysia's capital market have increased steadily over the past three decades reflecting rising income levels and savings following the growing demand for long term funds by both public and the private sectors. In 1970, funds raised by the market was estimated at RM405 million. It increased to



RM2.5 billion in 1980 and exceeded RM14.7 billion by 1990. At the end of 1996, it has increased substantially to approximately RM30.8 billion.

However, a well-functioning and efficient capital market is needed in order to ensure financial resources are mobilized efficiently. In an efficient capital market, prices of security fully reflect all available information. In other words, relevant information about the security is instantaneously computed into the price of the security.

The security market in Malaysia is still at its developing stage and it is small compared to the major markets of the industrialized economies. Recent studies by Ariff and Johnson (1990) and Annuar and Shamsheer (1993) showed the Kuala Lumpur Stock Exchange (KLSE) market met the criteria of weak-form and semi-strong form criteria of efficiency as defined by Fama (1970)<sup>1</sup>. The results implies that investors cannot consistently earn abnormal profits by using past and public information<sup>2</sup>. However, there are possibility that investors can earn abnormal returns using insider information at least in the short run.

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<sup>1</sup> Fama (1970) defined market efficiency into strong, semi-strong, and weak-form in terms of the price adjustment to available information. Weak-form efficiency means that the security price reflects the past price and trading history of the security. Semi-strong efficiency refers to the security price which fully reflect all publicly available information while strong-form efficiency exists when the price of a security reflects all information, including publicly available or insider information.

<sup>2</sup> An abnormal returns is defined as the difference between the actual returns and the expected returns from an investment strategy.

## **An Overview of the KLSE**

The securities industry in Malaysia began in the late 19th century as an extension of the British corporate presence in the rubber and tin industries. The first formal organisation was established in June 1930 when 15 stockbrokers formed the Singapore Stockbrokers' Association and was registered under the name of Malayan Sharebrokers Association in 1938 to reflect the PanMalayan character of its membership. There were no public trading of shares until 1960 after the constitution of the Malayan Stock Exchange.

In 1961, the Board system was introduced with two trading rooms, in Singapore and Kuala Lumpur, that were linked by direct telephone lines into a single market with the same stocks and shares listed at a single set of prices on both boards. In 1964, the Malayan Stock Exchange was renamed as the Stock Exchange of Malaysia with the formation of the Federation of Malaysia in 1963. The operation of the Exchange were strengthen with the adoption of new rules and by-laws, the creation of a fidelity and the implementation of listing requirements.

With the secession of Singapore from Malaysia in 1965, the common stock exchange continued to function but as the Stock Exchange of Malaysia and Singapore (SEMS). Subsequently, the 1965 Companies Act came into force to provide for a



more comprehensive legal framework in supervising the operations of companies in the country. In 1968, with the establishment of the Capital Issues Committee (CIC), the Bank Negara Malaysia (BNM), the Exchange and Registrar of Companies (ROC) were formalised in guiding the development of the stock market.

As a result of the termination of the Currency Interchangeability Agreement between Malaysia and Singapore on May 8, 1973, the SEMS was separated into the Kuala Lumpur Stock Exchange Bhd (KLSEB) and the Stock Exchange of Singapore (SES). This decision was taken in view of the overriding need to develop a strong and healthy national capital market which could be closely identify with the country's overall objectives and development priorities. However, the Malaysian companies continued to be listed on SES and vice-versa.

The KLSEB was established under the Malaysian Securities Industry Act (SIA) 1973 (later known as Securities Industries Act, 1983), operating on provisional rules, by-laws, listing requirements and corporate disclosure policy. When the SIA 1973 was brought into force in 1976, a new company called The Kuala Lumpur Stock Exchange took over the operations of the KLSEB as the stock exchange.

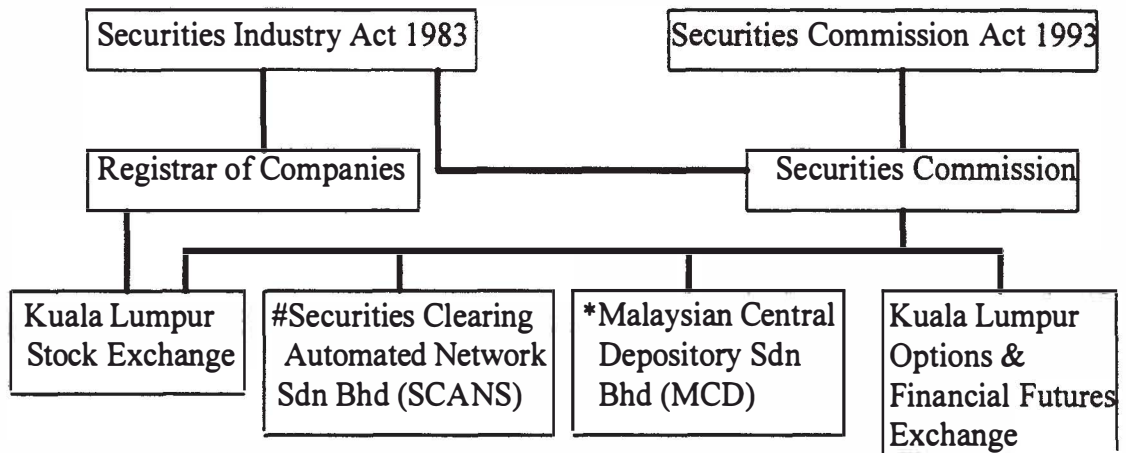
Over the years, The KLSE's close links with the Stock Exchange of Singapore Limited has rendered it very vulnerable to development in Singapore. Thus, the

delisting of Malaysian incorporated companies from the SES and vice-versa took place in January 1990. Later, on April 26, 1994, The KLSE was renamed to the current Kuala Lumpur Stock Exchange (KLSE). At present, it is the only official market for trading in securities in Malaysia beside the inactive Pasaran Saham Bumiputra (Bumiputra Stock Exchange).

### **Regulatory Structure of the Malaysian Securities Industry**

The securities industry in Malaysia is governed by the four Acts of Parliament, namely Securities Industry Act 1983, Securities Industry (Central Depository Act) 1991, Securities Commission Act 1993 and Companies Act 1965. Whilst the regulatory bodies that are responsible for the supervision and management of the securities industry include Securities Commission (SC), Registrar of Companies (ROC), Foreign Investment Committee (FIC) and Kuala Lumpur Stock Exchange (KLSE). Figure 1 and 2 show the various bodies /parties involved in the regulation of the security industry.

Although the KLSE is the official stock exchange of the country under the Securities Industry Act, there is in existence, the Bumiputra Stock Exchange (BSE) which was set up in 1969 for Bumiputra companies. At present, there are only five companies listed on the BSE and the trading is generally inactive.



#SCANS operates as the clearing house for KLSE and its wholly-owned subsidiary.

\*MCD is a subsidiary of KLSE and operates the Central Depository System pursuant to the Securities Industry (Central Depositories) Act 1991.

Figure 1 : Regulatory Structure of the Securities and Financial Futures Industry Encompassing -- Supervisory and Monitoring

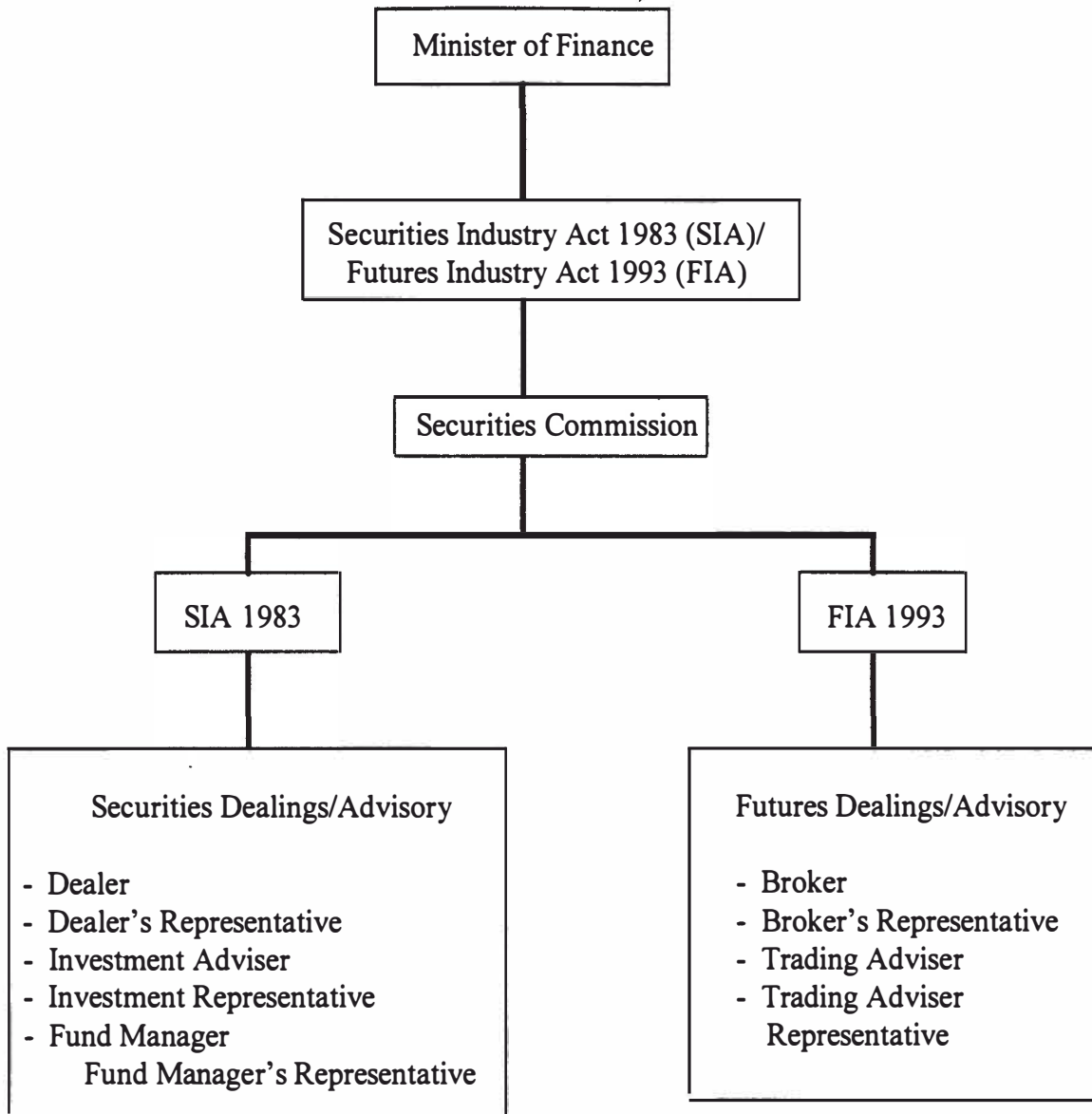


Figure 2 : Regulatory Structure of the Securities and Financial Futures Industry Encompassing -- Licensing

## **Organisation Structure of the KLSE**

KLSE is governed by a board of nine Committee Members where four of them are appointed by the Minister of Finance including the Executive Chairman of the KLSE, and the remaining five are elected from the stockbroking fraternity. Members of KLSE are either individuals or corporations who are shareholders of Member Companies (i.e. stockbroking companies). Currently, there are 60 stockbroking companies throughout the country.

The day-to-day operations of the KLSE are managed by various departments as outlined in Figure 3. In addition to these departments, the KLSE has several subsidiaries and affiliate companies (as showed in Figure 4) which collectively serve to expand and enhance the KLSE's role and operations.

## **Market Structure and Growth**

Since its inception, the KLSE has grown rapidly in terms of number of listed companies, volume of trading, unit as well as value, and market valuation. Table 1 provides the summary statistic of its growth in terms of number of companies listed on the KLSE and its nominal and market valuation for the period 1973 to 1996. The

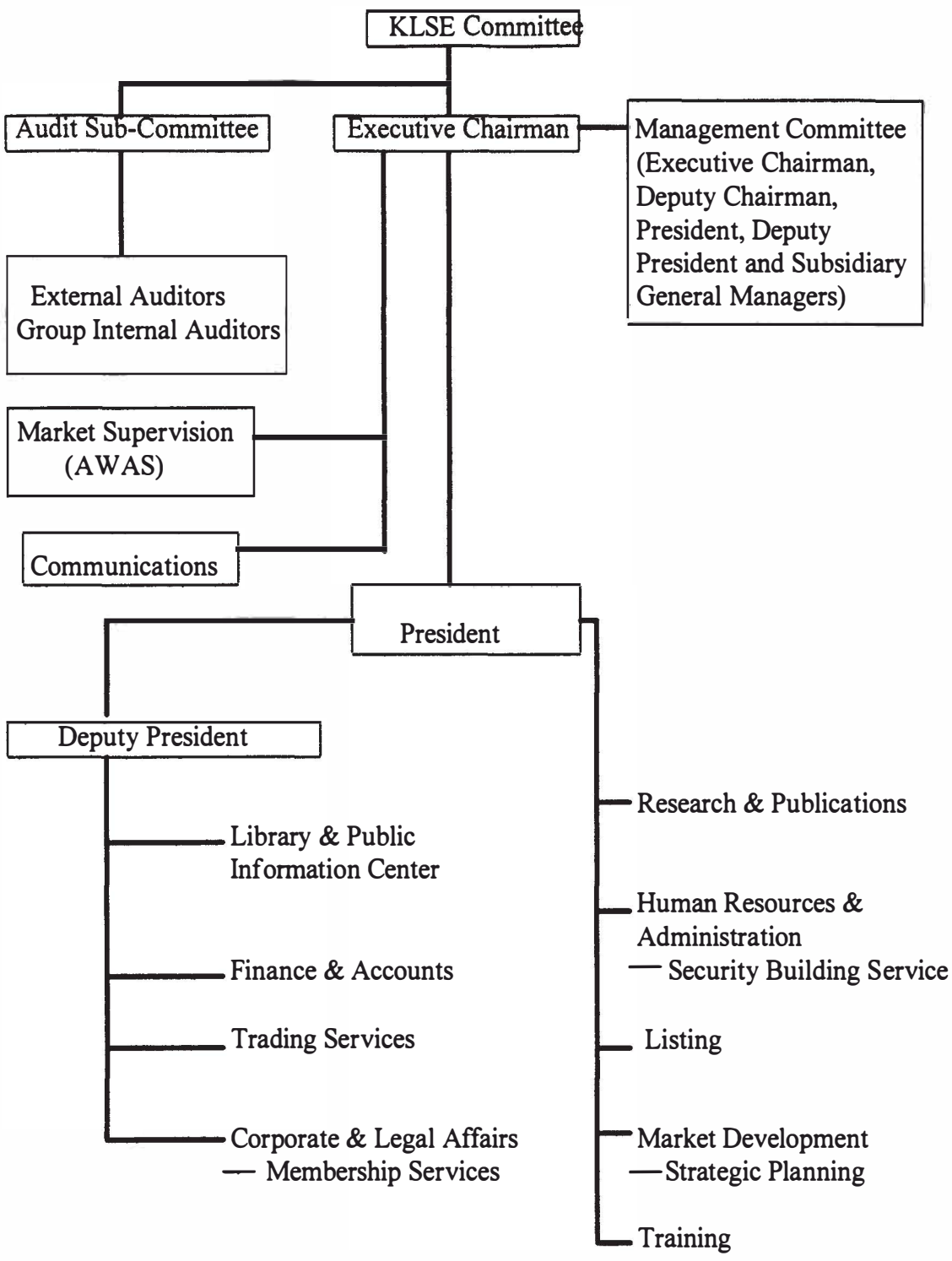
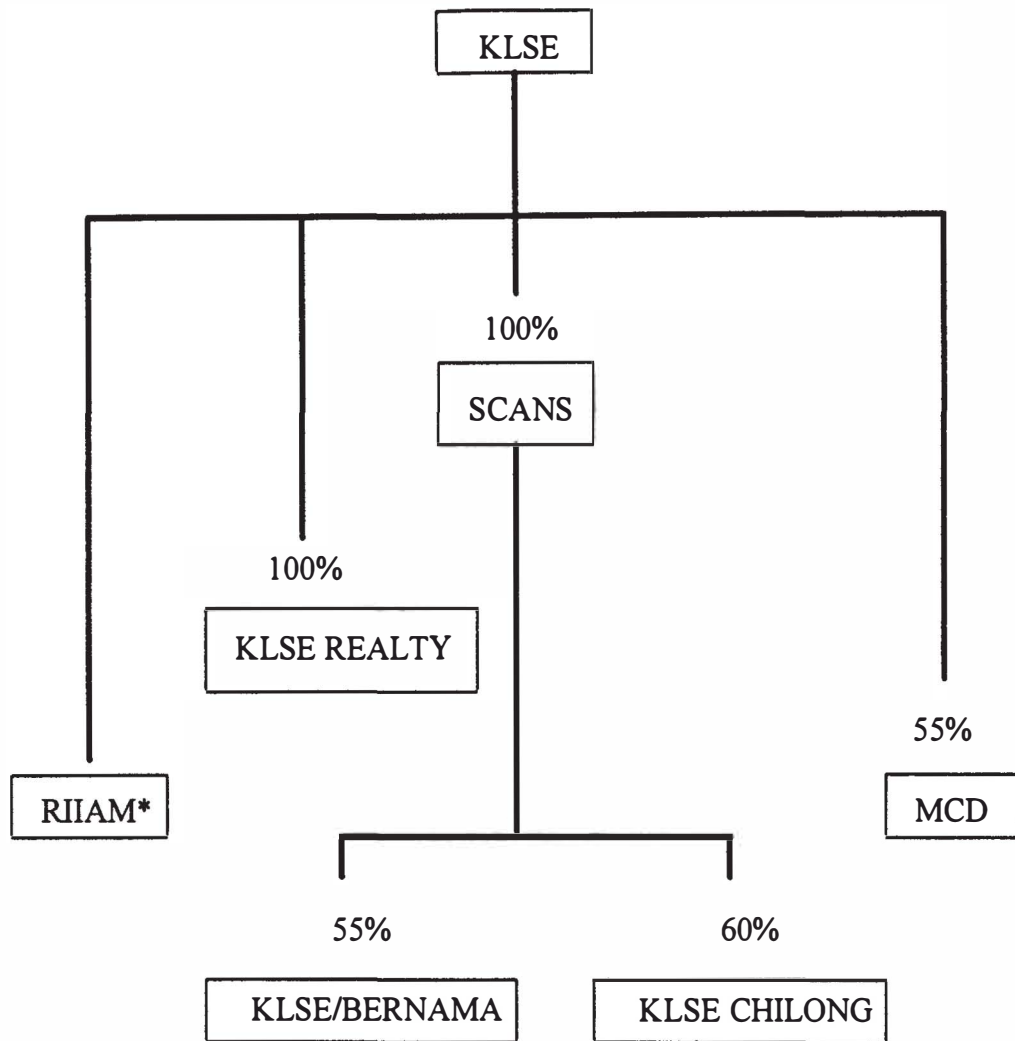


Figure 3 : Structure of Kuala Lumpur Stock Exchange





\*RIAM is a company limited by guarantee without a shareholding

Figure 4 : KLSE Group of Companies

number of companies listed grew from 262 in 1973 to 307 in 1989. The number of companies dropped to 285 in 1990 because 53 Singapore companies were delisted from the KLSE's List. Currently, there are 413 companies listed on the Main Board and 208 companies on the Second Board. The 621 companies have a nominal value of RM112.1 billion and a market valuation of RM 806.8 billion.

Table 2 exhibits the yearly and daily average trading volume in terms of volume and value. Yearly trading volume which stood at only 0.5 billion units in 1973 increased over the year to 13.2 billion units in 1990, and touched an unprecedented level of 107.7 billion units in 1993. Market sentiment was very bullish in 1993 and new records were set. On April 15, 1993, daily trading activity touched an all-time high of 1,039 billion units amounting to RM2,475 billion and daily value hit a staggering RM5,568 billion or 953.9 million shares on January 5, 1994. As a result, the total volume for 1993 stood at 107.7 billion units worth RM387.2 billion.

Subsequently in the next two years, trading shares worth RM178.9 billion. In order to encourage greater market participation especially for the higher priced counters, the minimum bid for counters in the RM25.00 to RM99.50 category was revised from 50 sen to 25 sen and for the counters priced above RM100,00 the cost was reduced from RM1.00 to 50 sen in July 1995.<sup>3</sup>

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<sup>3</sup> Minimum bid refers to the minimum permissible change on the offer to buy price over the previous done or quoted price. For more detail discussion on the bid-ask spread see the section of Transaction Costs in Malaysia's Stock Market.



The facility to trade in lot of 200 units was also implemented in September, 1995, to enable high-priced securities to be more affordable to a larger portion of the investing public. Currently, there are 16 counters being traded in board lot of 200 units. These measures in some ways have enable the market to recover. For example, in 1996 the trading volume increase to 66.5 billion shares worth RM463.3 billion.