# CHAPTER II

# MARKET STRUCTURE

## A. Thai Market Structure

The growing Thai economy requires more and more capital which can be satisfied by both domestic capital and foreign capital flows, spurring the drive for financial deregulation. Financial deregulation is normally related to the relaxation of supervisory constraints or the intervention of the authorities, allowing the market to function more freely. In Thailand, deregulation has been gradually introduced, starting with interest rate reform in 1979-1980 (a summary of the liberalization process are presented in Appendix 1). As a result of the financial system deregulation policies, foreign investment in Thailand has been gradually increasing for years.

Despite the move toward less regulation in the Thai financial markets, the Thai government has maintained some restrictions. For example:

- Foreign ownership of any Thai company is capped at 49%. Limits vary across industries and across firms within an industry. For example, the maximum foreign ownership limit is 25% for commercial banks and finance companies. Foreign shareholding is further limited by laws governing investment promotion licenses and concession permits, or specific company memorandum or articles of association.
- Foreign investors in general are subject to taxes on income from securities investment including capital gains, dividends, and interest. This income earned is also subject to 10-15 percent withholding tax, depending on whether the recipient is an individual or institution, and depending on the

type of income. For individual investors, capital gains from securities traded on the SET are exempt from income tax. The summary of income tax regulations on securities investment by foreigners is shown in Appendix 2.

The Stock Exchange of Thailand (SET) maintains two separate listings for common stocks which have reached foreign ownership limits. The SET inaugurated its Alien Board in 1987. For companies which have reached their foreign ownership limit, Thais continue to trade shares on the Main Board while foreigners submit orders to the Alien Board. Main and Alien Board shares are identical in all other respects. The existence of the Alien and Main Boards implies some direct access barriers for foreigners. The 'no short-selling' regulation also limits the Thai market by restricting investors' possible portfolio holdings. Short-selling is currently prohibited and Thailand does not have any organized derivative markets yet.

The Thai market makes an excellent study choice--testing whether or not it is internationally integrated or segmented--for many reasons. First of all, the Thai market liberalized its restrictions on foreign investment and implemented economic reforms in order to satisfy the increasing need for capital. Therefore, we would expect that the Thai market should now be more integrated with other markets, and the integration has increased over time. This point merits further investigation to confirm our belief since previous studies are inconclusive. Moreover, the steps in the liberalization process in the Thai market are clearly marked; we know exactly when a specific policy was adopted. This fact makes it simpler to construct empirical tests using available historical data.

Secondly, international diversification remains a concern since the Thai market seems to attract international investors as an emerging market. One of the reasons why investors are interested in our market is their ability to reduce risk by diversifying their portfolios. By adding equities from the Thai markets to their portfolios, foreign investors can both reduce overall risk and increase expected returns. The benefit of international portfolio diversification, made possible by integrated capital markets, has received substantial attention. However, the extent to which an investor wishes to diversify his portfolio will depend on the barriers to international investment that the investor faces. Barriers to investment are a critical factor to gauge the international integration of capital markets since investors need the ability to invest across borders to gain from international diversification. By searching for and examining investment barriers in Thailand, this study will provide some answers to the segmentation-integration question and measure the investment barriers in the Thai market.

Lastly, the 'no-short-selling' regulation is an interesting feature of the Thai capital markets. Most earlier studies testing for integration in other markets did not encounter any regulations prohibiting short-selling. This regulation forms a barrier to investment that segments the Thai market from the other countries' markets since investors cannot trade assets when they desire.

## B. Earlier Studies

Most of the empirical findings from Thai financial markets show evidence of a higher degree of segmentation which is not consistent with the trend toward financial liberalization. Moreover, none of the studies span the period after 1992, when various deregulation policies were adopted. For instance, Seth (1991) initially studied market integration between the US and Thailand using a single-latent variable model with investment barriers. He finds that from January 1977 to August 1988, the investment barriers faced by a US investor were not significant. On the other hand, Bailey and Jagtiani (1992) found a significant difference in risk premium for the same stocks traded on the Main and Alien boards from 1988 to 1991. The differences in risk suggest an investment barrier imposed on foreign investors. Cumby and Khanthavit (1992) use a Markov switching model to examine the degree of integration between the Thai market and world markets from 1977-1990. The results show that the markets are more integrated over time. Using a different methodology, Bekaert and Harvey (1995) also show an increase in the degree of integration beginning in 1986 for the Thai capital market. Khanthavit and Sungkaew (1993) conducted an especially interesting study. They also use the single-latent variable model with investment barriers but, unlike Seth (1991), Khanthavit and Sungkaew include a set of instrumental variables used to predict excess returns. This study investigates the extent of market integration between the Thai market and markets in its major investor countries: Hong Kong, Japan, Singapore, the UK, and the US. They find that investment barriers did exist from January 1986 to December 1989 and ranged from 2.85 percent for a US investor to 7.39 percent for a Japanese investor. In an earlier period (January 1976 to December 1985), the barriers were not significant. The authors claim that the lack of significant barriers in the 1976-1985 period were due to low Thai stock returns and a lack of asset trading in that period. A recent study from Hataiseree and Phipps (1994) documents the effect of market integration in the money market during 1987-1992. They find that the degree of capital mobility appears not to have increased significantly though several reductions in capital controls were applied during this period.

### C. The Effects of Investment Barriers

The central issue is the effect of barriers to investment in Thailand especially when residents of other countries (US, Hong Kong, Singapore, and United Kingdom) can invest in both the Thai market and their home equities (see Figure 2.1). These investment barriers faced by foreign investors are different across countries and different across assets within the same market.

In our market setting, foreign investors are not interested in all the stocks listed in the Thai market. As a result, the Thai market is segmented by expected ownership: some stocks are held by foreign investors and Thai investors; some stocks are not chosen by foreign investors. For instance, there is evidence that only some large capitalization stocks (such as stocks in the banking and finance industries) are actively traded on the Foreign Board. As a result, when testing international market integration, one should compare the set of domestic assets chosen by foreign investors against foreign equities, instead of comparing national indices against each other (see Figure 2.2). As I indicate, eligible assets are stocks that are chosen by foreign investors when investing in the local market whereas the opposite is true for ineligible assets.

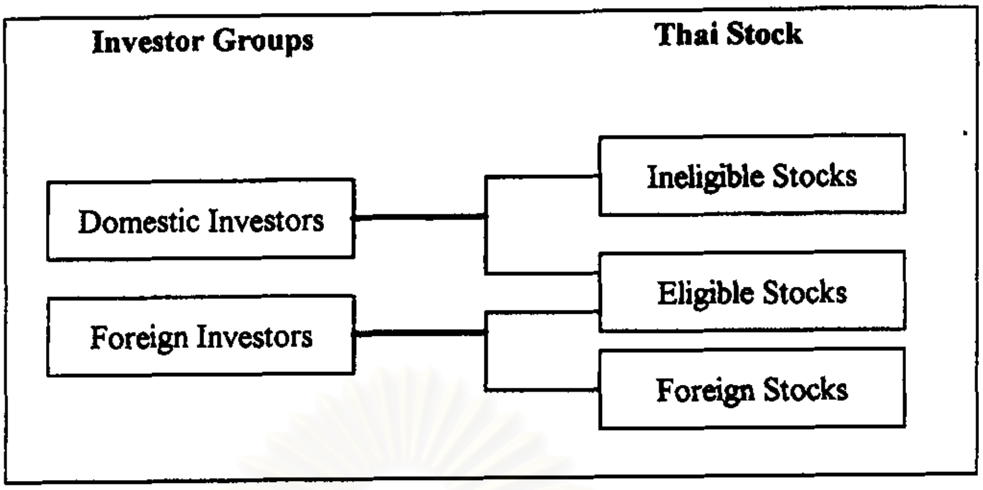


**Figure 2-1: Investor groups and sets of stocks in the Thai market**

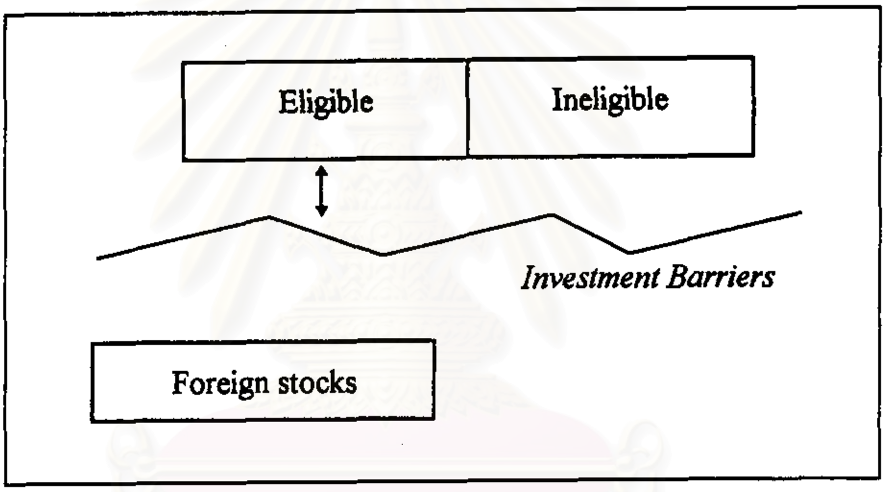


**Figure 2-2: Investment barriers in the international context**

With this variety of methods and conclusions, the answer of whether investment barriers or market segmentation does exist in the Thai market during the 1980s up through the early 1990s requires further research. This study attempts to reconcile what appears to be contradictory evidence.