Second Board Markets in APEC Economies

Report to ABAC

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Second Board Markets in Asian Economies

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EXECUTIVE SUMMARY

ABAC asked the U.S. PECC FMD task force to conduct a study of Second Board Markets (SBMs) in selected APEC and developed economies in line with its *2000 ABAC Report to Leaders.* ABAC recommended study of the best practices in the development of SBMs in APEC economies. The research reported here is based primarily on a survey of exchange officials and experts in selected APEC economies study and is not comprehensive in terms of economies and exchanges in the region. The survey results and related research undertaken by the U.S. PECC FMD are summarized here for discussion pending completion of a more comprehensive study of the issues confronting markets for small-firm shares.

- The mostly widely cited "best practice" among survey respondents was SBM listing requirements requiring corporate reporting to foster transparency and the most widely cited challenge or lesson learned was lack of transparency in their markets. Listing requirements alone have not been enough to solve information asymmetry problems in these markets;

- The goal in founding all APEC SBMs is to improve the flow of funds to small high-tech firms, yet domestic investor interest and trading volume on these exchanges has been disappointing for many of the economies. Many markets are limited to domestic companies in a few industries;

- Liquidity and trading activity has been limited on most of the APEC responding economy SBMs and international investor interest has been disappointing to most markets. Attracting additional company listings has in some cases been difficult;

- Many survey respondents mention that issuers, investors, and regulators often do not understand the role of capital markets. Companies often do not appreciate the importance of providing timely and complete information necessary to gain investor confidence. Investors often do not comprehend the substantial risks (and returns) of investing in small firms. Regulators often fail to understand the needs of issuers and investors and to appreciate the role markets play in allocating capital efficiently, requiring that gains *and losses* can be experienced by investors;

- Government policies affecting small firms (like taxation and restrictions on foreign ownership) can be important influences on the attractiveness of small firm stocks trading on SBMs and hence can be an important influence on these markets' success.

The detailed discussion of the survey results in the following report and the essay by Professor Harris, a financial market micro-structure expert, provide the following proposals for consideration and suggestions for further research in an effort to foster future development of small-firm share markets:

- The prospects and challenges for regional integration of small-firm exchanges should be studied. Most APEC exchanges were established around the same time and hence collaboration with existing regional exchanges was not possible. Many economies now planning SBMs and some operating exchanges now indicate an interest in more exchange cooperation;

- SBMs should take the lead on providing investors with better information on listed firms because that is how they can add the most value to the investment community. SBMs should consider alternative trading mechanisms (such as monopoly dealers or market makers) in an effort to promote research and increase investor confidence concerning the quality of information available on listed shares;

- Exchanges should consider expanding industries represented by listed shares, combining company shares with guarantees (sale of puts) by sponsoring firms, and find other means of increasing investor interest and confidence. Exchanges should consider possibly conducting experiments with various innovative market structures to find solutions to problems of lack of transparency and investor confidence;

- A systematic education program directed at issuers, investors, and regulators should be undertaken to assure long-run viability of small-firm markets and to enable these markets to perform their economic role of allocating capital efficiently, thereby promoting growth of the entire economy;

- An analysis of the complete range of government policies, from industrial policy to securities regulation, should be undertaken to assure harmonization of policies in terms of their implications for the attractiveness of public issuance of small-firm shares to companies, investors, and exchanges.

The detailed reasoning supporting these recommendations for future policy discussions and research follows.

A STUDY OF ASIAN AND BENCHMARK SECOND BOARD MARKETS

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Implications of Research on Second Board Markets

The survey data and related research on second board markets (SBMs) reported in this study confirm the importance of public markets for emerging-firm shares but raise important questions concerning their survival or future evolution. The results of the survey are discussed at length below, but the major findings and their implications for future policy research and debate leading to policy recommendations must focus on several issues:

(1) Problems of information asymmetry that limit investor interest in small-firm shares have not been satisfactorily addressed despite efforts undertaken by existing SBMs in APEC economies. While disclosure is required by SBM listing requirements and is described as a "best practice" by respondents for many SBMs, they also report shortfalls in the reliability of corporate reporting and standards of disclosure. Ways of increasing regulatory enforcement and strengthening investor rights in the APEC economies must be examined carefully to improve compliance and strengthen investor confidence in information on firms trading on SBMs;

(2) Liquidity and foreign investor interest in SBM shares fall short of levels desired by investors and the exchanges and may be less than required for long-term viability. While this issue is directly related to the above point, it also suggests study of possible regional or global efforts at market integration that could expand the liquidity and trading volume of the small-firm shares. Despite the SBMs starting trading

independently of other economies for a variety of reasons, many SBMs now have an interest in possible collaboration with other exchanges. Regional harmonization of listing requirements and disclosure rules combined with multi-economy trading in shares could both make trading more efficient and expand investor interest;

(3) Lack of interest in SBM share trading has resulted in limited liquidity on most of the markets in this study. Fundamental aspects of exchange organization ought to be explored in an effort to increase issuing firm and domestic and international investor interest. Diversification of industries listed on exchanges might be an important step that, combined with more reliable disclosure, could increase international investor interest in small-firm shares. Requiring securities firms to sponsor listed companies and to perform market-making activities in company shares, as is being considered by China, and other means of promoting research and analysis of small firm shares should be explored as a means of engaging recognized firms' reputations in the trading of small-firm shares;

(4) Education of investors and regulators concerning the risks and possible returns of small-firm shares should be a high priority. It must be well understood that an important function of capital markets is to establish the relative costs of funds against alternative uses whether or not that implies high or low share prices. Issuers must recognize the role of research and information on securities' values and the importance of disclosure to inform investors necessary to trade in markets, providing liquidity and thereby reducing their cost of funds in the long run. Regulators must appreciate that enforcing trading rules and disclosure is not the same thing as eliminating risks to investors;

(5) A close look at different economies' policies toward small firms, in terms of taxation, industrial policy, ownership restrictions, international trade regulation and promotion, and so on, should be synthesized with a review of exchange listing requirements to insure that policy makers and exchange officials and exchange users (securities firms, investors and issuers) goals and needs are harmonized.

Analysis of Survey Results from Respondent Economies

The survey answers have been summarized and presented here in the table "Summary of Survey Responses of SBMs in Selected Economies." The motivating factors behind the establishment of the APEC SBMs are virtually uniform. All respondents with currently operating SBMs (shown in Panel (A) of the table), except Japan and the United States, explicitly describe their motivation for establishing a small-firm or SBM as an effort to encourage or foster investment in smaller firms, and in three cases specifically small high-tech firms. Furthermore, Panel (B) of the table shows that three of the four economies considering or recently establishing a SBM cite funding for emerging high-tech firms as their motivation. The focus on start-up, high tech firms clearly reflects the consensus view that technology and start-up firms will be the engines of future economic growth for these economies. Interestingly, respondents for the Japanese Mothers and the NASDAQ cite availability of public equity for all venture firms as its motivation, while Japan also cites expansion of the opportunities for investors as an objective.

The focus on trading of high-tech firm shares highlighted in the survey raises several interesting issues. First, as we discuss below, there is growing evidence that stock returns across economies are increasingly highly correlated, reducing the benefits

Table - Summary of Survey Responses of Second Board Markets (SBMs) in Selected Economies

Panel (A) Economies with Established Second Board Markets

Survey Questions	Japan	Korea	Singapore	Chinese Taipei	United States	Germany	Hong Kong	Malaysia (KLSE)
Motivating factors behind establishment of SBM	Encourage venture businesses. More diversified investment product.	To foster SMEs and high-tech start-ups and to improve their access to capital markets.	To provide SMEs with means to raise funds in the capital markets.	To strengthen capital-raising ability of SMEs.	To provide marketplace to bring firms public and raise capital.	To create market segment for high-growth companies.	To assist capital formation for emerging firms, and broaden investment for investors.	To provide market for SMEs to raise capital.
Why go alone rather than cooperative regional arrangements?	TSE and its market infrastructure are already established.	Domestic investors. No SBMs elsewhere.	No SBMs elsewhere then. Different regulatory standards, and competition among exchanges.	Only domestic firms eligible for listings.	OTC market is breeding ground for young, innovated start-ups.	Part of wider Deutsche Boerse.	Own domestic market characteristics and, legal and regulatory framework.	Cross-border alliance and trading uncommon then. Also local objectives in establishing SBM.
Examples of best practices.	Liquidity and transparency.	Increased capital base. Market transparency.	Full disclosure.	Easing of listing requirements.	Multi-dealer system resulting in more transparency.	2 market makers and stringent reporting.	Enhanced disclosure based approach.	"Lock-in" period and profit guarantees.
Lessons learnt	Need for deeper involvement by regulatory bodies, and to educate the public.	Increased venture business activities after financial crisis but Kosdaq market not ready then.	Sesdaq too small. Lack of liquidity. Lack of diversity among listed firms.	Trading system not convenient for investors.	Need for fair and transparent marketplace to allow embryonic firms to grow over time.	Shared benefit through dual listings.	Liquidity unevenly distributed. Also need for more investor education on risks.	Many family-controlled firms, leading to lack of understanding over the role of public company.
Most difficult challenges	Corporate disclosure system.	Accounting and disclosure systems not well developed.	Getting more listings. Enlarging investor base.	Gap between concerns of regulators and those of investors.	Having technology and its development accepted in marketplace.	Restoring confidence with overall credibility affected.	Getting right balance between investor protection and market flexibility.	Low liquidity and perception of "lower" quality of firms.

Survey Questions	Japan	Korea	Singapore	Chinese Taipei	United States	Germany	Hong Kong	Malaysia (KLSE)
Responses of international investment community	A third of investors are foreign.	Not popular.	Inactive participation due to low liquidity and market capitalization.	Not much interest	Outstanding response. More foreign firms listed on Nasdaq than NYSE.	Strong participatio-n	Interest waning.	Lack on interest due to low liquidity.
Additional comments		Start-ups becoming more popular among would-be entrepreneurs.		Need to provide economic incentives for investor participation.			Need for regular review of regulatory frameworks.	SBM fulfilled purpose of providing avenue for SMEs to raise capital.

Panel (B) Economies with new or planned Second Board Markets

Survey Questions	Chile	China	The Philippines	Malaysia (Mesdaq)
Motivating factors behind establishment of SBM	Providing avenue for firms to raise capital aside from bank financing.	Growing importance of SBM in financing small firms and high-tech start-ups.	Emergence of SBMs elsewhere and development of IT industry	To enable high growth, high-tech firms and SMEs to raise capital.
Bias toward "stand alone" or cooperative regional SBM?	Bias towards "stand alone" due to the local context. Open to possibility of foreign firms participating in the market.	No bias. Important to strengthen cooperation among regulatory authorities of different economies.	Cooperative model more favorable due to more liquidity and efficiency.	Cooperative model due to increased globalization and new technology, as well as greater liquidity.
Factors considered in deciding between "stand alone" and cooperative regional SBM	Local character and necessity of satisfying local demand	Accounting standards, legal framework, information disclosure system, and liquidity.	Listing standards, settlement procedures, tax and inter-jurisdictional issues.	Individual market's unique characteristics such as regulations, policies, time zones etc.
Additional comments	Mixed view from private sector. Current exchange characterized by low activity and liquidity.	Considering advisor/market-maker mechanism for trading	SBM fairly recently established and maybe too premature to comment.	Public education to promote SBM as viable avenue for capital raising and investment.

of international diversification in terms of portfolio risk reduction to investors. In view of the goal of expanding the choices offered by share markets as mentioned by the Japanese survey, and the recent experience that technology firm shares led by NASDAQ move together globally, exclusively trading high-tech firm shares may reduce these exchanges' attractiveness to potential investors by increasing the correlation of returns of firms in the same industry, even though listed on different economies' exchanges. Increased correlation of returns implies that the risk-reducing properties of international portfolio diversification are reduced. Second, other economies, such as France with its *Second marché*, have established exchanges facilitating public trading in shares of small, family-owned, companies, often active in old-economy industries. To the extent that smaller family businesses are important in APEC economies, limiting listing to high-tech firms may bias investment against more traditional types of small businesses and adversely affect the relative cost of funds for small old-economy firms. Finally, the growth of labor-intensive service industries not based on high-tech in developed economies suggest that limiting SBM listings to high-tech firms may disadvantage another important source of economic growth in APEC economies, the service sector.

When asked why the exchanges were established by "going it alone," two responses are prevalent in the survey responses. Some economies respond that no other markets were established at the time they set up their SBM so they were forced to organize their exchanges in isolation. With the exception of the NASDAQ, Singapore Sesdaq, and the Kuala Lumpur Stock Exchange (KLSE), all the SBM markets in the survey economies have been founded since 1996. The other common response for "going it alone" is that listings for a variety of reasons (policy or regulation) was limited to domestic companies. On the other hand, several economies contemplating establishing a SBM or with very new SBMs indicate an interest in collaboration with other economy small-firm markets.

The historical development of the small-firm exchanges provided by the survey responses allows the interpretation that the fragmentation of small-company share trading into separate-economy exchanges and exclusive listing of economy-specific firm shares on them may not necessarily be relevant for the future. Given the newness of most of the APEC SBMs surveyed, and the interest demonstrated by some economies in moving to integrate their markets with other exchanges to deal with some of the problems discussed below, it may be time to consider means of integrating SBM activities across economies. Integration could come from either joint ventures involving common trading platforms and clearing mechanisms or through cross listing of securities.

Among the "best practices" cited by nearly all the respondents from the SBMs are various aspects of transparency, usually defined in terms of corporate financial disclosures. In the case of one of the Malaysian SBMs (Kuala Lumpur Stock Exchange or KLSE), corporate governance is regulated through listing requirements by setting restrictions on sales of shares by insiders and payout of profits during a "lock-in period." The NASDAQ specifically cited the use of a multi-dealer trading system as leading to more transparency and qualifying as a "best practice."

On the other hand, several APEC economies responded to questions concerning lessons learned or most difficult challenges by mentioning problems with corporate disclosure and limitations to transparency. The tentative conclusion is that the goals of the corporate reporting requirements of the APEC SBMs are not met in reality and that reported information is inadequate in reducing problems of information asymmetry. The survey responses and the listing requirements for the SBMs summarized in Appendix Table 1 display substantial variation in the level of disclosure required and in standards of company profitability and size for listing. In the long term, reliable and consistent reporting standards are essential and, if market integration is a goal to be pursued, they must be consistent across economies. As discussed in Professor Harris' essay in this report, solving problems of information asymmetry is the single most important issue acing small-firm share markets.

The most common problems with SBMs mentioned by survey respondents are lack of liquidity, the level of trading activity, and lack of investor interest. Most APEC economies (aside from Japan and the United States) mention in particular the lack of foreign investor interest in listed shares as a problem for the exchanges. These problems are echoed in other comments in the survey concerning low trading volume and difficulty in keeping a satisfactory number of listed companies. Problems of liquidity, trading volume, and number of listings, are in part associated with market fragmentation across economies. They also result from both domestic and international investors' inability to assess risks and returns due to information asymmetry.

Many economies cited the need to educate investors concerning the advantages and risks of investing in smaller firms in an effort to enlarge the base of traders. Another concern cited by survey respondents was the gap between the view of securities market regulators and the goals and needs listed companies and share investors. Regulators are subject to political pressure and market downturns with their associated losses are unpopular, even though inevitable in free markets. Appreciation by regulators of the value of the price-discovery function of public markets, important to managers for evaluating investment options even if the information does not please investors, is essential for securities markets to lead to economic efficiency and growth. Regulators must be made aware that they are not able to determine what happens to trading in shares on exchanges and that most importantly their role is to enforce fair rules of the trading game.

Another issue cited by the Japanese survey respondents is the importance of broader government policies, for example taxation, subsidies, restriction on foreign ownership, international trade policies, etc., related to small-firm business opportunities and optimal strategies. These policies, together with regulation of the trading and exchanges, must be compatible with the goals of managers and investors of firms listed on SBMs. Implicit in these comments is the necessity of predictability in government policies, since changes in government policy can lead to large changes in securities values that can undermine investor confidence. The implication is that government policies toward small firms must not only not integrate policies concerning corporate governance, reporting, and securities trading, but must also be consistent with the success of small firms as they are affected by broader government policies concerning taxation, competition, and trading authorities for small firms.

Price and Trading Volume for APEC SBMs

Price indices and trading volume data are available for some APEC SBMs as well as the NASDAQ and Neuer Markt. These data are presented in the following graphs, Figures 1 to 3, and the complete data is provided in Data Appendix Table 3. Figure 1 shows the performance of indices for which data was available from 1997 with January, 1997, set equal to 100 for all exchanges. With exception of a few exchanges (like Sesdaq), all indices trended upward from 1997, reaching a peak level in March 2000. Starting with that date, all indices trended downward, some dramatically. Figure 2 shows the performance of more SBM exchange indices since 2000 (with January 2000, equal to 100 for all exchanges) since many of the APEC markets were organized and starting trading in more recent years. As noted in the text above, it is apparent that all the indices closely track the NASDAQ index which over this period was dominated by the high market weights associated with high-tech firms.

Data Appendix 3, Panel B, provides correlations in the monthly returns of the SBM markets indices from January 2000. Although the correlations are estimated with two years of data, all the correlations show a remarkable linkage to the NASDAQ returns, with the market index returns correlations ranging from .81 for the Neuer Markt to around .5 (.47 to .56) for three of the APEC SBM indices. The lowest correlations of index returns with the NASDAQ return were .34 for the Malaysian Mesdaq and Singapore exchange.

While the index return correlations are estimated with relatively few data points and over a period of global devaluation of tech stocks, they confirm that using APEC SBM shares in international portfolios to risk reduce portfolio risk may have limited usefulness. These results support the widely held conclusion from evidence based on a larger array of stock markets over longer time periods that international portfolio diversification may provide decreasing benefits to investors (see for example the IMF working paper cited in the bibliography). The importance of these findings is that

Figure 1 – Selected SBM Monthly Index Performances, 1997 – 2001

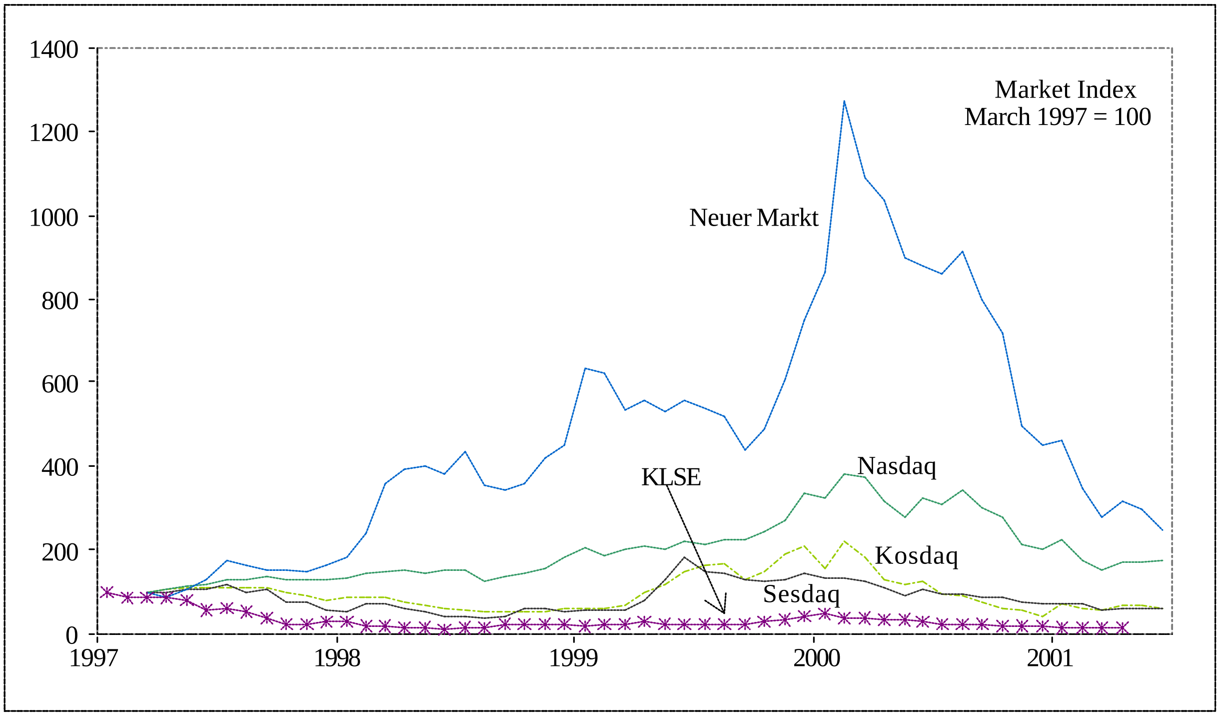


Figure 2 – Selected SBM Monthly Index Performances, 2000 – 2001

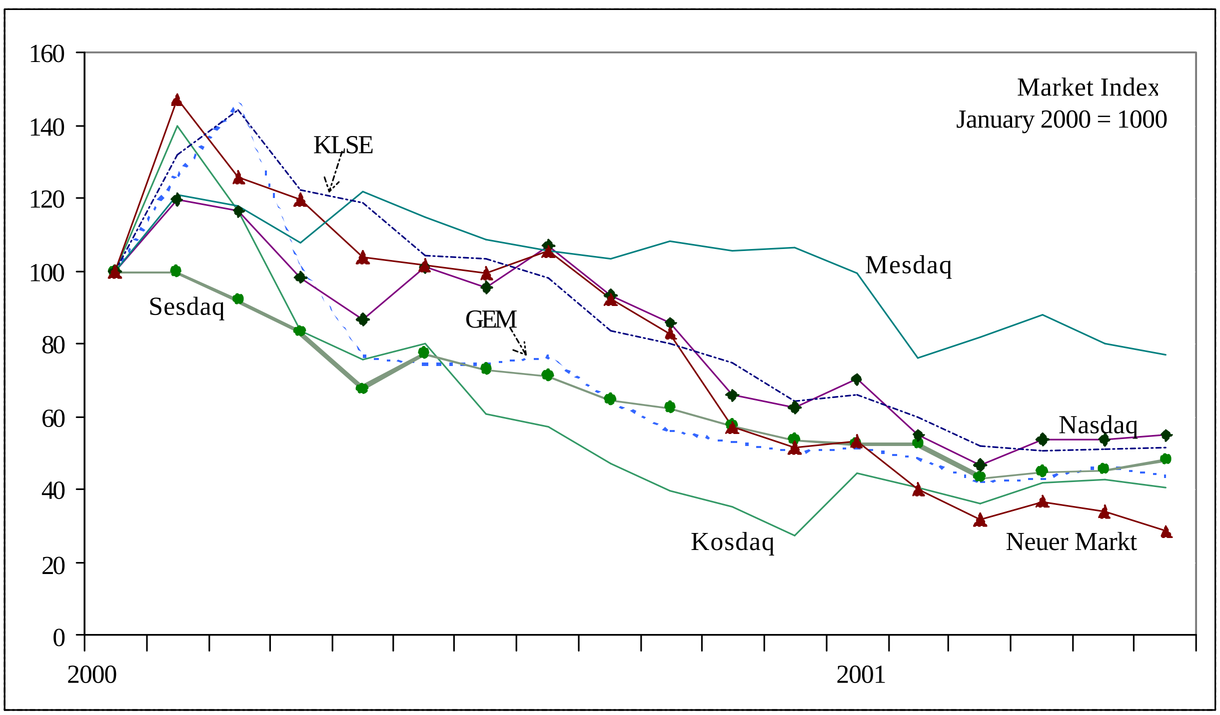
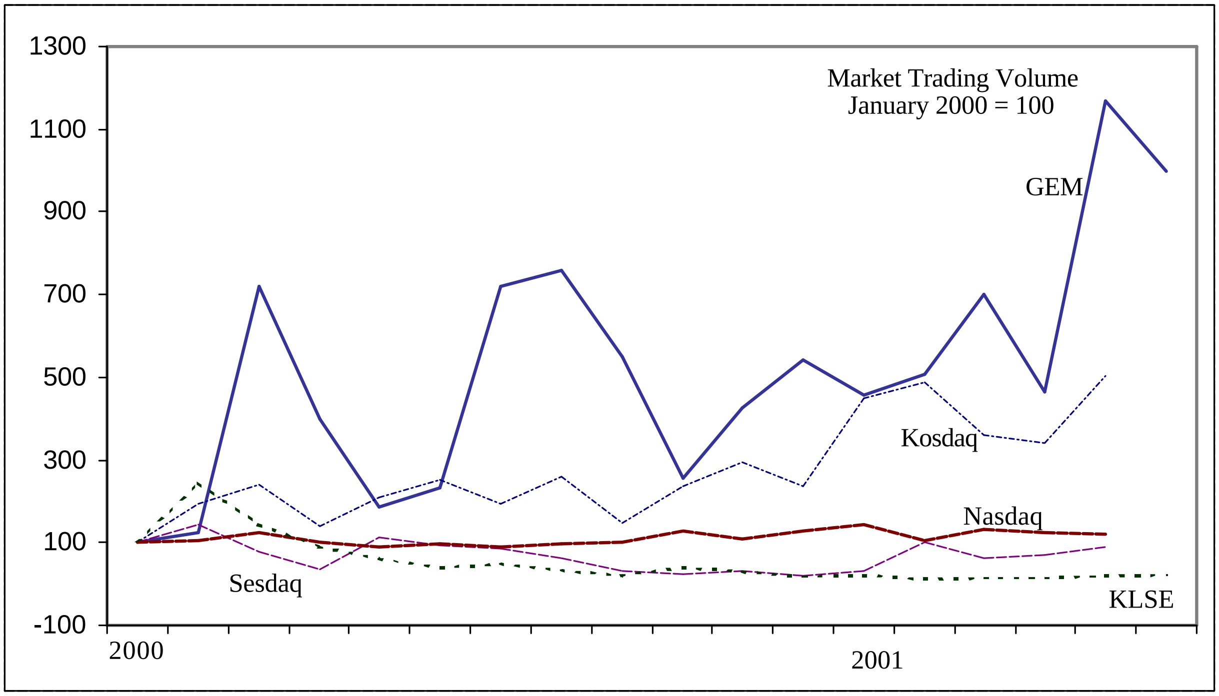


Figure 3 – Trading Volume on Selected SBMs



concentration of listings to firms in narrowly defined industry categories, like start-up technology firms, may be an important factor reducing international investor interest in using SBM shares to diversify risks.

Trading volume data is shown in Figure 3 for the SBMs for which data is available. The volume data is shown as an index for January 2000 levels to avoid problems of differing trading mechanisms (in dealer markets trades would often count as two trades since the dealer is on both sides of the transaction.) Despite the survey respondents concerns with the low volume of trading and lack of liquidity, the precipitous decline in index values has apparently not severely reduced trading activity relative to January 2000 levels for most exchanges, the exception being the KLSE SBM. Nonetheless, these data must be used cautiously, since many exchanges were very new in January 2000, and trading volume for exchanges with few listed firms can be dominated by a few large-block transactions.

Structure of Equity Markets: Dealer versus Order-driven Markets

The survey results suggest that lack of investor interest in trading stocks listed on SBMs is likely caused by information asymmetry problems: sophisticated, long-term investors are not confident in information concerning potential investments on the exchanges. The NASDAQ exchange survey response credits its multiple-dealer organization as a distinct advantage in providing transparency to investors, since dealers assume risk for stocks they take positions in. The German Neuer Markt requires two dealers for listed companies and list that as a best practice. Some survey respondents, including China, have suggested requiring securities firms to sponsor listed companies.

In order to put this discussion into context, Appendix Table 4 provides publicly available information on trading mechanisms for selected SBM markets. The table suggests that auction markets and computerized order-matching systems are common, with only the NASDAQ explicitly presenting a dealer market trading structure. Further research is required to refine the role of dealers in APEC SBMs.

While trading mechanisms are certainly secondary to solving information asymmetry issues for trading small-firm equities as discussed by Professor Harris, given the NASDAQ observation they are clearly not unrelated to the solution of these issues. Research needs to be done concerning the level of involvement of securities firms and market makers in listed firms and the perception of transparency in these markets. Much will depend on these firms potential for conducting research and maintaining markets for small-firm shares. Since the debate between advocates of auction markets and dealer markets continues in developed economies and with large-firm shares around the world, rules concerning the role of dealers may be an area that warrants experimentation to assess the impact of trading mechanisms on the future growth of APEC SBMs. If NASDAQ's assessment of its own success is correct, market structure may be a key element fostering the transparency and investor confidence the growth of small-firm share trading requires.

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The Economics of Second Board Financial Markets

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Introduction

Second board markets are intended to facilitate the financing of small corporations. The organizers of markets like those covered in the ABAC survey explicitly state that they hope to make public financing more readily available to corporations that otherwise most likely would use private financing because of their size. Many of these markets try to attract listings of emerging high-technology firms. The economics of second board markets therefore depends on corporate decisions to finance these firms' operations with public capital versus private capital and investor interest in shares traded on those markets. This discussion examines the factors that determine whether small-firm share markets succeed or fail.

The history of exchanges devoted to trading small firm shares is not encouraging for the future of second board markets. Many of these exchanges have failed because of lack of investor interest and listing firm interest. Consider, for example, the closure of the American Stock Exchange Emerging Company Marketplace. Among the survey economies, there is some talk of closing the Singapore exchange and there is dissatisfaction among successful firms listed on the German Neuer Markt. The reasons for these failures are found in the economics of funding small-firms' activities.

The nature of the relationship that investors have with the firms they finance distinguishes private capital from public capital. Privately financed firms obtain their capital from investors with which the firm has business relationships while publicly financed firms obtain their capital from investors that have no significant relationship with the firm.

Investors who provide private financing usually cannot easily sell their investments to others, either because they are restricted from doing so, or because no market exists for their investments. Investors who provide public financing generally are free to sell their investments, but such sales can be very expensive if the market is illiquid. Since all investors value liquidity, the availability of liquid markets shifts financing from private sources to public sources.

The economics of second board markets therefore are the economics of liquidity. Not surprisingly, many of the second board market respondents in the survey voiced concerns about the lack of liquidity in their markets. In this essay, we consider the major obstacles to obtaining liquid markets and how the structure of second board markets can make markets more liquid. We start our discussion by considering why investors trade.

Investor Considerations

Investors trade because they need to move money from the present to the future. In the process, they hope to get a fair rate of return for the risk that they may lose their money. Private investors can often decrease the probability of low returns or losses through their business relationships with the firm in ways that public investors cannot. Many firms with very good business prospects have inexperienced management teams and/or inadequate financial control systems. These firms may be poor investments because management cannot capitalize on their prospects or because the risk of loss through fraud is great. Private investors who can obtain substantial control over management and over the financial assets of the firm therefore can provide capital more cheaply than will public investors who generally cannot exercise such control as effectively or as cheaply. Second board markets that can help investors solve these problems will attract more investors.

Very small firms invariably are privately financed because their managers often are inexperienced, because their financial control systems cannot adequately protect investors against fraud, and/or because public investors will not do the expensive research necessary to determine whether they will lose their money. These firms generally obtain financing from family and friends, banks, or venture capitalists. Family and friends are more willing to finance small firms than are public investors because management is less likely to defraud family and friends than strangers. Banks are often more willing to finance a small firm than are other investors because banks can more easily monitor the firm's financial systems through its banking relationships, and because banks experts at securing, foreclosing and disposing of pledged properties. Venture capitalists are often more willing to provide financing than are public traders because they can participate in the management of the firm.

Corporate Considerations

Private finance is often very expensive to a firm. Investors who provide private financing generally obtain very illiquid investments. Since investors like to be able to recover their money whenever they want to, they demand high rates of return when entering into illiquid investments. Private finance is also expensive to firms that do not want to share control with venture capitalists, subject themselves to the discipline and oversight of banks, or reveal their trade secrets to outsiders.

Firms that can obtain public finance can often obtain funds at low cost. The cost of the funds depends on whether investors are confident that the funds will not be wasted, lost, or stolen. It also depends on whether the investors can trade their securities to other investors in a liquid secondary market. Liquid markets allow investors the option of recovering their money when they want to. Since investors value these options, they will pay more for securities that trade in liquid markets. Sponsors of second board markets hope to lower funding costs for their listed firms by facilitating the development of liquid secondary markets for their securities.

Liquidity in Public Markets

Unfortunately, as the survey respondent noted, not all public securities trade in liquid markets. Market liquidity depends on several factors. Liquidity ultimately comes from public traders who are interested in — and willing to trade — the listed securities. Market structure is less important to liquidity than investor interest. Public auction markets and dealer markets both require interested public traders to succeed. The reason is obvious for public auction markets and only slightly less so for dealers markets: Dealers cannot trade profitably without customers.

Securities generally interest investors when the investors can easily determine whether they will lose their money. The securities of firms that are known to have good management and well developed financial controls therefore will trade in more liquid markets. Such firms must publish reliable financial information and they must engage in business that investors can easily analyze and evaluate.

The second board markets in the survey address these concerns with listing requirements that include corporate reporting. They identify financial transparency as a "best practice." However, many ABAC respondents raise concerns about inadequate transparency in their markets. These concerns suggest that listing requirements alone cannot guarantee adequate and reliable corporate reporting. Second board markets must do more than simply request corporate disclosure to assure investor confidence in firms listed on their exchanges.

Asymmetric Information Problems

In the long run, markets are always illiquid when some market participants have substantially more information about security values than do other people. Well-informed traders can better estimate whether securities are overvalued or undervalued than can less informed traders. They therefore profit from less-informed traders. Since nobody likes to lose, investors will avoid trading securities that they believe that others can price them more accurately than they can. This problem is called the asymmetric information problem. Securities that have many well-informed traders or a few very well informed traders are securities that most investors do not like to trade.

Securities dealers are especially sensitive to the asymmetric information problem because they stand ready to buy or sell securities at their quoted prices. When they quote prices that do not reflect values, they lose to well-informed traders. Since dealers will not continue to make markets if they lose on average, they must widen their spreads to collect from less-informed traders what they lose to well-informed traders. When the asymmetric information problem is especially severe, dealers may have to widen their spreads so much that less informed traders will not trade with them. In which case, dealers cannot profit from dealing and they will not make markets.

The asymmetric information problem is most severe for small firms like those listed on the Asian second board markets that were surveyed. Many of their firms are engaged in new technologies, products, and services that most people do not fully understand. Many of these firms also do not have financial reporting systems that report accurate information on a timely basis. The securities of such firms will not trade in liquid markets. If the asymmetric information problem is especially severe, they simply will not trade. Such firms generally cannot obtain public financing. Private financiers are more willing to fund such firms than are public investors because private investors generally can obtain better access to inside information about the firm.

Other Sources of Liquidity

Securities markets also may be liquid for reasons that are not economically beneficial in the long run. For example, traders who are willing to gamble in shares without concern about the underlying companies' businesses can make a market liquid. Gamblers trade because they enjoy the excitement associated with uncertainties about future prices. Gamblers may be consciously aware that they are gambling or they may fail to recognize the true reasons for why they trade but they, like all traders, want to profit from trading. Gamblers differ from other traders because the pleasure they obtain from trading may allow them to willingly accept the losses that they incur on average when trading with better informed traders. True gamblers will continue to trade even when they realize that they tend to lose. Although it is impossible to definitely identify gambling — almost nobody will admit that they gamble in the markets — many people believe that gambling has strongly influenced market. Some of the more recent cases that people cite involve Internet stocks and Chinese IPOs.

Investment markets also may be liquid if novice traders are willing to try to discover whether they can trade successfully in them. Novices usually quit trading after they have lost enough money to convince themselves that they will not be skilled traders. This occurred in the U.S. when day-trading through Internet brokers plummeted after e-commerce shares dropped precipitously. Trading on Asian second board markets s also fell, which suggests that many novices decided to withdraw from the markets. Those novices that continue to trade after it becomes clear that they do not trade profitably are probably gamblers.

Implications for Second Board Finance Markets

Companies listed on the second board markets in the survey generally do not qualify for listing on their economy's primary finance markets. They are too small, have too few shareholders, and they may not have adequate financial histories. These firms hope to obtain the low cost financing that public markets can offer. Unfortunately, most of these firms are poorly known so that their trading suffers substantially from the information asymmetry problem. In addition, since these firms may have immature financial controls, their securities are often not attractive investment vehicles.

For these reasons, second board markets cannot ensure that their listed securities will trade in liquid markets. In the long run, these markets will be liquid only if investors are confident that they have adequate information and are not exposed to information asymmetries. When investors do want to trade these securities, the exchange services that second board markets provide can lower the costs to traders of arranging their trades, thereby reducing the cost of funds to listed firms. These transaction cost savings, however, are of second order importance to investor concerns about the risks discussed above.

Reputation

Second board markets can make their listed securities more attractive to investors by helping their listed firms solve the asymmetric information problem and by helping their investors avoid financial frauds. Successful second board markets add value to their listed firms when they require that they make timely, accurate, and informative reports of their financial conditions and of their business prospects. These markets can also add value by requiring that outside auditors reliably certify that the financial control systems within these firms adequately protect investors from fraud. The NASDAQ survey response confirms the importance of transparency to the operation of a successful market. Investors who know that firms have met these listing standards will place higher values on the second board securities.

While second board markets may temporarily benefit their listed firms by giving them access to gamblers and novice traders, such access does not serve the long run interests of the second board markets. Access to gamblers and to fledglings allows low quality firms to obtain financing that they otherwise might not obtain. When firms fail, they reflect poorly on the second board market and they taint the other securities listed on the second board. Such failures have caused the collapse of small-firm markets such as the AMEX Emerging Company Marketplace.

Many second board markets have experienced boom and bust cycles. Some observers fear we have just experienced such a boom and bust given the run-up and collapse of second board market indices in the last two years. The participation of gamblers and novices generally causes these markets to boom when they are first established. The markets then bust as these traders lose to better-informed traders and as low quality firms fail. Uninformed investors therefore avoid such markets. This problem currently is plaguing the Neuer Markt in Germany whose good firms are concerned about being listed on the same exchange with failing firms.

Second board markets that wish to avoid these problems should consider regulating minimum trade sizes to discourage gamblers and fledglings. Although such restrictions would decrease liquidity in the short-run, they would protect the reputation of these markets in the long run. Alternatively, second board markets may wish to limit access to their markets only to well qualified investors.

Market Structure

Since second board firms are generally are small, and since the costs of doing fundamental research into their values typically is high, few traders will find it profitable to do the research necessary to price them properly. Large numbers of dealers cannot be profitably deal such securities because all dealers must do the same costly research to avoid the asymmetric information problem. Since dealers must cover their research costs, second board markets may be more liquid if they permit only a few dealers to specialize in each security. By restricting the number of dealers, these markets can decrease the redundant expenses associated with a large number of dealers doing the same research to obtain the essentially the same conclusions. Since each remaining market maker obtains more order flow, they can quote narrower bid/ask spreads while still recovering the costs of the research necessary to avoid losing to well-informed traders. Any restrictions on the number of dealers, however, must be accompanied by regulations that prohibit dealers from exploiting their market power.

Proposals for Consideration

Investors are more willing to hold risky securities about which they do not know much if they can rely upon trustworthy assurances that they will not likely lose much holding them. Such assurances may come from private rating agencies, listing markets, investment analysts, or investment advisors. To provide valuable information, such assurers must do the costly investment research that the investors have not done. To be reliable, these assurers must have something valuable at stake. Rating agencies, listing markets, investment analysts, and investment advisors generally stake their reputations on the quality of their information. The credibility of these assurances depends on the value of these stakes. If the stakes are not high, the assurances may not be meaningful. Investors who trade in the second board markets surveyed in this study probably do not have valuable assurances that they can rely upon. Second board markets would be more successful if they could obtain better assurances for their investors.

Investors are much more willing to invest in a security if they know that their losses will be limited to a fraction of their investments. This is more likely if there is a ready source of liquidity for individual securities. The Chinese response to the survey suggests a means of increasing liquidity in the market by requiring each listed firm to have a sponsor that makes a market in the firm's shares. At a minimum, this offers the investor the opportunity to realize some cash from his investment at any time. Whether firms will be willing sponsor a security, however, depends on the asymmetric information issues discussed above. Although requiring sponsorship will benefit investors, it will make public share offerings more expensive for the listed firms.

Another type of assurance can be highly reliable: a guarantee by a credit-worthy party. For example, suppose investors could limit their losses by buying a put from a creditworthy counterpart, such as a sponsoring firm as in the Chinese proposal. The counterpart therefore takes much of the credit risk while the investor supplies the investment capital. The resulting combined investment returns less to the investor, of course, because the put is costly. Investors can offset the cost of the put by selling a call at a higher strike price. The resulting combination converts a risky investment into a less risky investment by transferring the credit risk to creditworthy insurers who stake their wealth on the quality of their assurances. Such assurances will be highly reliable if the counterpart is creditworthy. When the strike prices of the put and the call are equal, the resulting combination is essentially just a bond from the investor's point of view.

Second board markets therefore can improve the liquidity of their listed securities by providing traders with opportunities to trade long-term options on their securities. Since markets for options on small stocks are notoriously illiquid, second board markets may work best, if the stock, long put, and short call combination trade as a single bundle. By adjusting the spread between the two strike prices, the market can make the investment as secure or as risky as it pleases.

To produce a bundle of stock and a long put, the market merely must arrange for a creditworthy counterpart to provide the put. The natural provider might be the dealer who underwrote the original stock offering. To produce a bundle of stock, a long put, and a short call, someone besides the investor must control the stock to avoid credit problems with the investor. Such problems can be avoided by creating trust units that hold the combination. The second board market would then trade the unit instead of the stock.

Conclusion

Second board markets will always be less liquid than traditional financial markets because the securities that they list generally are not good investment vehicles. They are much more subject to asymmetric information problems and financial fraud problems than are larger, more mature securities.

Second board markets, however, can create more liquid markets for those firms that are willing to accept a high level of regulatory oversight. Second board markets can make the securities of these firms more attractive to public investors by adopting rigorous listing standards that require firms to make their affairs transparent and that reduce the probability of financial fraud. Some firms that otherwise would not be able to access public capital would thereby be able obtain public financing.

Although the cost savings associated with centralized trading of small-firm shares on a second board market can be important, these cost savings are small relative to the more important issues involving symmetric information and the potential for financial fraud. The market structure of second board markets — order-driven or quote-driven — therefore is of less importance to the success of these markets than are the listing standards that these markets can impose upon their listed firms.

Second Board Markets in APEC Economies

Final Report to ABAC

APPENDIX

August, 2001

Research Conducted by U.S. PECC FMD Committee

Research Coordinator: J. Kimball Dietrich
University of Southern California

Design of Study

This study of second board markets (SBMs) in Asian economies was undertaken in response to a request for assistance in researching this topic by ABAC. ABAC approached the U.S. PECC Financial Markets Development (FMD) task force in March, 2001, with proposal described in "Terms of Reference" for a survey-based study of experience with SBMs in selected APEC economies as well as benchmark SBMs in North America and Europe. ABAC selected the list of APEC economies and provided the questions for the survey of "best practices" and other features of SBMs in these economies discussed above. The understanding was that PECC FMD would rely on its network of FMD committees in PECC economies to complete the survey. The ABAC proposal was welcomed by PECC since its request fit wells with the PECC FMD research focus on small-firm finance discussed at a PECC FMD meeting in Kyoto in April, 2001.

The study was conducted follows: (1) researchers at the U.S. PECC FMD gathered basic data on the SBMs on the ABAC list from public sources as well as additional markets of interest (included in the Data Appendix as Appendix Table 1, "Survey of Basic Information on Second Board Markets"); (2) the questions concerning experience with SBMs were transmitted to PECC FMD committees in the selected economies and the other economies added by PECC FMD for responses by exchange or securities markets experts in each economy. At the same time local committees were asked to review the information contained in the table of basic information; (3) exchange officials in the United States and Germany were contacted concerning their responses to the questions provided by ABAC and the U.S. The U.S. PECC committee provided expanded versions of the survey questions given the different circumstances of the developed-economy exchanges; (4) responses to the survey questions together with information on respondents were collected. They appear here as Appendix Table 2, "Survey of Best Practices in the Development of Second Board Markets in Selected Economies"; (5) the survey question responses were summarized in the table in the body of this report discussed above, "Summary of Survey Responses of SBMs in Selected Economies"; (6) available information on price indices and trading activities for SBMs in the study were gathered from public sources and are included in the Data Appendix as Appendix Table 3, "Index and Volume Data for Selected Second Board Markets" and presented in the body of the report in Figures 1 to 3. Finally, descriptive information on trading mechanisms on selected second board markets were gathered and are presented in the Data Appendix as Table 4, "Stock Trading Mechanisms of Second Board Markets in Selected Economies

The U.S. PECC FMD requested that an expert on exchange markets, Professor Lawrence Harris of the University of Southern California, review the SBM project results and contribute a discussion of the role and problems facing second board markets and economic significance of public equity markets for small firms. He focused specifically on problems these markets face in funding the growth of start-up firms and discussed issues raised in the study concerning the structure of the markets as auction or dealer-based markets. Professor Harris' discussion is provided following this summary as "Economics of Second Board Financial Markets."

Appendix Table 1 – Survey of Basic Information on Second Board Markets

Countries	Second Board	Sponsoring or Affiliated Exchange	Market Data Available	Selected Listing Requirements (Not complete – only important elements to local markets are listed)	Principal Regulatory Body	Other Regulators	Foreign Exchange Alliance **
Chile	None established to-date						
China	None established to-date						
Japan	Mothers (Market of the high-growth and emerging stocks). Established on November 1999.	Tokyo Stock Exchange Website: www.tse.or.jp	Index – No Volume and value traded – Yes Market Capitalization – Yes No. of firms listed – 34	a) A company must meet either of the conditions below: - Company whose main business is in a high growth industry - Company whose main business is based on new technologies/concepts. b) Primary offering of at least 1,000 shares must be made at the time of listing c) At least 300 new shareholders must be created by the primary offering and any additional secondary offering d) Estimated market value for the time of listing must be at least 500 million JPY e) There must be a record of sales for the business that is deemed eligible for Mothers (please see a), by the day prior to the listing application date f) The auditor's overall opinion of the audit reports attached to the listing application documents must be "fair" g) No false statements in financial statements covered by the audit reports. h) No restrictions on transfer of shares	Financial Services Agency Website: www.fsa.go.jp Securities and Exchange Surveillance Commission Japan Website: www.fsa.ho.jp/sesc/sesc-e.html		TSE signed MOUs with NYSE, AMEX, Korea Stock Exchange, Singapore Exchanges, Australian Stock Exchange, etc.

Countries	Second Board	Sponsoring or Affiliated Exchange	Market Data Available	Selected Listing Requirements (Not complete – only important elements to local markets are listed)	Principal Regulatory Body	Other Regulators	Foreign Exchange Alliance **
Korea	Kosdaq Established on July 1996 as a development of then-existing OTC market. Website: www.kosdaq.or.kr/english	Kosdaq Stock Market	Index – Yes Volume and value traded – Yes Market Capitalization – Yes No. of firms listed – 613	3 listing standards to choose from: Listing Standard 1 a) No. of years since incorporation: at least 3 years (5 years for construction firms) b) Paid-in capital: 500 mln won (1 bln won for construction firms) c) Shareholder's equity: NA d) Total asseets: NA e) Floating shares: 30% of total shares outstanding or 10% & more than 5 mln shares Listing Standard 2: a) Number of years incorporated: NA b) Paid-in capital: NA c) Shareholder's equity: 10 bln won d) Total assets: 50 bln e) Floating shares: same as above. Listing standard for venture firms: a) Number of years incorporated: NA b) Paid-in capital: NA c) Shareholder's equity: NA d) Total assets: NA e) Floating shares: same as above.	Financial Supervisory Commission, Ministry of Finance and Economy		

Countries	Second Board	Sponsoring or Affiliated Exchange	Market Data Available	Selected Listing Requirements (Not complete – only important elements to local markets are listed)	Principal Regulatory Body	Other Regulators	Foreign Exchange Alliance **
The Philippines	Second Board	The Philippine Stock Exchange Website www.pse.org.ph	Index – No Volume and value traded – Market Capitalization – No. of firms listed – 4	a) Min. capital requirements: P100 millionn. b) Track record: profitable operatio ns for at least 3 years, with cumulative profit of at least P30 million and min pre-tax profit of P5 for each of those 3 years.	Securities and Exchange Commission		
Singapore	Sesdaq Established on 1987	Singapore Exchange Limited Website: www.sgx.om	Index – Yes Volume and value traded – Yes Market Capitalization – Yes No. of firms listed – 103	No quantitative requirements for listing: Pre-tax Profits – NA Paid Up Capital – NA Track Record – A company with no track record has to demonstrate that it has good growth prospects and that its business is expected to be viable and profitable.	Singapore Exchange Limited (self regulatory) under supervision of MAS	Monetary Authority of Singapore (MAS) Website: www.mas.gov.sg	
Chinese Taipei	TIGER (Taiwan Innovative Entrepreneurs) Established on March 1, 2000	Over-The-Counter Securities Exchange Website: www.otc.org.tw	Index – No Volume and value traded – Yes Market Capitalization – Yes No. of firms listed – 16	(1) Years of establishment: At least one fiscal year. (2) Market Capitalization: (a) At least NT30 million and no accumulated losses; or (b) Net worth of NT2 billion.	Taiwan Securities and Exchange Commission (Ministry of Finance) www.sfc.gov.tw		

Countries	Second Board	Sponsoring or Affiliated Exchange	Market Data Available	Selected Listing Requirements (Not complete – only important elements to local markets are listed)	Principal Regulatory Body	Other Regulators	Foreign Exchange Alliance **
United States	Nasdaq Established on February 1971	Nasdaq Stock Market Website: www.nasdaq.com	Index – Yes Volume and value traded – Yes Market Capitalization – Yes No. of firms listed – 4612	For small cap market requirements: a) NTA: $4 mln or Mkt Capitalization: $50 mln or Net income (in latest fiscal year or 2 of the last 3 years): $750,000. b) Public Float (shares): 1 million c) Market Value of Public Float: $5 million d) Operating history: 1 year or Market Capitalization: $50 mln.	NASD Regulation Inc (self-regulatory) under supervision of Securities and Exchange Commission (SEC).	Federal Reserve	1) Nasdaq Japan (established June 2000). 2) Nasdaq's seven stocks (Amgen, Applied Materials, Cisco, Dell, Intel, Microsoft and Starbucks) listed on HKEx (May 2000). 3) MOU with the combined London Stock Exchange and Deutsche Borse to form a joint venture Nasdaq iX. 4) Nasdaq Canada (established November 2000).
Germany	Neuer Markt Established on March 1997.	Deutsche Borse Website: www.deutsche-boerse.com	Index – Yes Volume and value traded – Yes Market Capitalization – Yes No. of firms listed – 343	a) Minimum issue volume of 5 million Euros, 50% by capital increase. b) 20% minimum free-float c) Minimum 6-months lock-up d) IAS/US-GAAP accounting standards.	Federal Securities Supervisory Office	State finance ministry	Creation of the proposed iX merger, between the London Syock Exchange and Deutsche Boerse, with participation of Nasdaq, have been abandoned.

Countries	Second Board	Sponsoring or Affiliated Exchange	Market Data Available	Selected Listing Requirements (Not complete – only important elements to local markets are listed)	Principal Regulatory Body	Other Regulators	Foreign Exchange Alliance **
Hong Kong	GEM (Growth Enterprise Market) Established on November 25, 1999. Website: www.hkgem.com	Stock Exchange of Hong Kong Limited	Index – Yes Volume and value traded – Yes Market Capitalization – Yes No. of firms listed – 79 Website: www.hkex.com.hk	No profit requirement. Listing applicant must appoint GEM sponsor. Must demonstrate at least 24 months of active business pursuits (may be relaxed subject to Exchange's approval). Must meet following requirements: (a) if market capitalization is below HK$1 bln, the min. public float is 20% subject to a min. of HK$30 mln.; (b) if market capitalization is HK$1 bln or above, the min. public float is the higher of HK$200 mln or 15%; (c) no less than 100 public shareholders at time of listing.	Hong Kong Securities and Futures Commission		
Malaysia	Second Board Established on 11 November 1988.	Kuala Lumpur Stock exchange Website: www.klse.com.my	Index – Yes Volume and value traded – Yes Market Capitalization – Yes No. of firms listed – 297	Issued and Paid-up Share Capital: A minimum issued and paid-up capital of RM40 million. Historical Profit Performance: An uninterrupted profit record of three (3) full financial years, with an aggregate after-tax profit of not less than RM12 million over the said three (3) financial years and an after-tax profit of not less than RM4 million in respect of the most recent financial year; or an uninterrupted profit record of five (5) full financial years, with an aggregate after-tax profit of not less than RM12 million over the said five (5) financial years	Securities Commission of Malaysia		

Countries	Second Board	Sponsoring or Affiliated Exchange	Market Data Available	Selected Listing Requirements (Not complete – only important elements to local markets are listed)	Principal Regulatory Body	Other Regulators	Foreign Exchange Alliance **
				and an after-tax profit of not less than RM4 million in respect of the most recent financial year. Public Shareholders: 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:- a) 750 shareholders for nominal value of issued and paid up capital of RM40 million to less than RM60 million. b) 1000 shareholders for nominal value of issued and paid up capital of RM60 million to less than RM100 million. c) 1,250 shareholders for nominal value of issued and paid up capital of RM100 million and above.			
Malaysia	Mesdaq (Malaysian Exchange of Securities Dealing and Automated Quotation) Established on October 1997. Website: www.mesdaq.com.my		Index – Yes Volume and value traded – Yes Market Capitalization – Yes No. of firms listed – 5	Business Activities: Companies should be involved in a single business activity or in a set of substantially related and complementary business activities. As technology is a major growth sector in the economy, MESDAQ has identified twelve priority technology areas. These include a category on emerging technologies to cater for new developments. Although emphasis is given to technology companies, this does not exclude			

Countries	Second Board	Sponsoring or Affiliated Exchange	Market Data Available	Selected Listing Requirements (Not complete – only important elements to local markets are listed)	Principal Regulatory Body	Other Regulators	Foreign Exchange Alliance **
				non-technology companies with high growth potential from seeking a listing on MESDAQ. Operating History: 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 revenues for at least twelve (12) months at the time of seeking admission. However, no profit track record is required. Issued and Paid-up Capital: The company's minimum issued and paid-up capital should not be less than RM2 million. Net Tangible Assets: The company's net tangible assets per share upon listing should not be less than its equal or par value. However MESDAQ may in its discretion allow net tangible assets per share to be less than par value. Restrictions on promoters: The promoters must a) hold at least 51% of the issued and paid-up shares of the company upon admission to MESDAQ; and b) hold at least 45% of the issued			

Countries	Second Board	Sponsoring or Affiliated Exchange	Market Data Available	Selected Listing Requirements (Not complete – only important elements to local markets are listed)	Principal Regulatory Body	Other Regulators	Foreign Exchange Alliance **
				and paid-up shares of the company for one year after the company'' admission to MESDAQ.			

Prepared by Mohamad Hisham B. Mohd Noh, with additional information provided by FMD respondents.

Appendix Table 2 - SURVEY OF BEST PRACTICES IN THE DEVELOPMENT OF SECOND BOARD MARKETS (SBMS) IN SELECTED ECONOMIES

Name of survey respondent	: Francisco Garcés
Economy	: Chile
Position	: Director, International Economic Program, Libertad y Desarrollo Institute
Second Board Market	: None established to-date

1) What were the motivating factors behind establishment of the SBM?

The motivating factors for a Second Board would be:

(1) The necessity of obtaining financing, through the stock exchange, for the development of new projects on the part of companies that are restricted only to the bank financing.

(2) Possibility of financing innovative or new projects, with high profitability, a higher risk, and for companies without old trajectory.

(3) Create a segment in the securities markets to differentiate and facilitate the decisions of investments in the part of the investors.

2) Do you have a bias toward "stand alone" or a cooperative regional SMB?

Yes, we have a bias toward "stand alone" SBM. The development of these operations has impelled second markets mainly towards a local level, due to the local context of these projects. Without contradiction to the above-mentioned, it incorporates the possibility that foreign companies participate in these markets. In this context, the cooperation with foreign Securities Commission is fundamental. Also, at the moment, one is promoting projects of integration to regional level.

3) What factors need to be considered when deciding between "stand alone" and cooperative models?

The factors which should be considered when deciding between "stand alone" and cooperative models are as follows:

(1) The local character of the projects.

(2) The necessity of satisfying a demand and local offer.

(3) The speed and efficacy for their materialization.

4) Please add any other comments or reflections on your experience with the SBM.

The view of the private sector is mixed, because at this moment, the traditional market of securities and shares is characterized by low activity and the liquidity of the market is low, at present, as well.

SURVEY OF BEST PRACTICES IN THE DEVELOPMENT OF SECOND BOARD MARKETS (SBMS) IN SELECTED ECONOMIES

Name of survey respondent	: Xu Jin Lei
Economy	: China
Position	: Industrial and Commercial Bank of China
Second Board Market	: None established to-date

1) What were the motivating factors behind establishment of the SBM?

China has lagged behind in the development of second board equity market while having a mature main board equity market for a few years. Concerning the decisive role that innovation and technological development has played in the evolution and development of the new economy, the growing importance of SBM in financing the small firms and high-tech start-ups is the most important motivating factor we are considering while preparing for the establishment of SBM in China.

Based on the experience of the existing SBMs around the world, we believe that the following principles in building second board market should be followed:

(1) Enhancing information disclosure mechanism and strengthening supervision. Second boards, to a large extent, depend on adequate information disclosure. Market supervisory authorities shall have the responsibility to oversee market behavior, to investigate into violations of rules and to remove companies from the Second Board listing. The supervisory authorities can impose upon issuers a compulsory information disclosure mechanism, for example, requiring issuers to provide financial reports periodically. It should also require issuers to report business targets and results and to explain the gap between targets and actual results. These requirements can help authorities to control market risks and protect investor's interest.

(2) Introducing advisor mechanism in listing. Given the higher risk in the second board market, advisor mechanism should be set up in order to protect investor's interest. The sponsor's main responsibilities are providing impartial suggestions for the issuers, to judge the enterprise's adequacy for listing and ensuring the completeness, correctness and authenticity of the information, helping enterprises and their board members understand rules for listing, providing suggestions on how to conform to listing regulations. The sponsor must possess high-level credibility, expertise, integrity and prudence. The sponsor shall also act as a market maker to ensure an active and dynamic business environment.

(3) Setting rules for sales of stocks. Generally speaking, the high-tech companies listed in second boards are characterized by low capitalization and relative high risks. As a result, stocks of such companies should be circulated on condition that the shares held by the management and the venture capital sell their shares after a period of time. To

control operational risks, listed companies should be deprived of their listed position if they continuously lose money.

2) Do you have a bias toward "stand alone" or a cooperative regional SMB?

We have no bias against either "stand alone" or cooperative regional SBM. But in recognition of different development stages of SBM in different economies, we would like to emphasize here that it is important to strengthen dialogue and cooperation among regulatory authorities of different economies in existing bilateral or multilateral framework. The experience and lessons of those established SBMs are really valuable to the emerging ones. Communication and cooperation within APEC region are therefore essential and constructive.

3) What factors need to be considered when deciding between "stand alone" and cooperative models?

We believe that when we are choosing between "stand alone" and cooperative SBM models, quite a few factors shall be considered, such as accounting standards, legal framework, information disclosure system, liquidity and transparency of the market etc. All these are important factors that we may take into account when deciding reasonable SBM model in China.

4) Please add any other comments or reflections on your experience with the SBM.

SURVEY OF BEST PRACTICES IN THE DEVELOPMENT OF SECOND BOARD MARKETS (SBMS) IN SELECTED ECONOMIES

Name of survey respondent	: Sintaro Fukushima
Economy	: Japan
Position	: Deputy Manager (New Listing Services), Tokyo Stock Exchange
Second Board Market	: Mothers

1) What were the motivating factors behind establishment of the SBM?

(1) To transform and revitalize Japanese economy by encouraging venture businesses (VBs) (providing VBs an access to capital at earlier stage of their development).

(2) To provide investors with more diversified investment product.

2) Why did you "go it alone" rather than develop a cooperative arrangement with regional partners?

TSE is a leading stock exchange in Japan, which has been operating stock market for more than 50 years. Mothers uses TSE's already established market infrastructure (e.g. listing examination, transaction system, disclosure, clearing and settlement, information dissemination, etc.), therefore in order to establish Mothers, TSE considered that it was not necessary to cooperate with other organizations.

3) What are examples of "best practices" that have underpinned the development of the SBM?

(1) Liquidity.

(2) Transparency (through improvement of IR activities of listed companies).

4) What lessons were learnt?

(1) In order to develop a market for VBs, efforts and cooperation of not only stock exchanges but also the government such as amendments of legal and tax system is necessary.
For example, according to Commercial Code of Japan, a company's asset per stock must be 50,000 JPY or above, and it hinders companies from splitting their shares to reduce their share price and to increase shareholders base (Abolishment of this article will be discussed at the parliament this year).

(2) In order to make a market for VBs fully fulfill its function, VBs, venture capitalists, underwriters, investors and the media must have deeper understanding of the purpose, meaning, risk, etc. of “market for VBs” and “investment in VBs”.

5) What have been the most difficult challenges to establishing the market?

(1) Challenges at the time of establishment of Mothers:
Improvement of corporate disclosure system, i.e. introduction of quarterly disclosure and auditors’ review system (both were introduced in Japan by TSE for the first time).

(2) Challenges after the establishment of Mothers:
Improvement of environment of the market (e.g. improvement of the VCs’ and underwriters’ ability in selecting good companies).

Publication of the market to the market participants and the media.

6) What has been the response of the international investment community?

The majority of investors participating in Mothers is, like other markets for VBs, domestic retail investors. (Though data of Mothers solely is not available, 1/3 of investors participating in Mothers and TSE’s Second Section Market is foreign investors).

We think that as the number of listed companies increases, participation of foreign investors also increases.

For your reference, TSE opened up Mothers to foreign VBs in November 2000, and have received several inquiries on listing from foreign VBs.

7) Please add any other comments or reflections on your experience with the SBM.

SURVEY OF BEST PRACTICES IN THE DEVELOPMENT OF SECOND BOARD MARKETS (SBMS) IN SELECTED ECONOMIES

Name of survey respondent	: Sungsoo Koh
Economy	: South Korea
Position	: Research Fellow, Korea Institute of Finance
Second Board Market	: KOSDAQ

1) What were the motivating factors behind establishment of the SBM?

Background of Establishment of KOSDAQ(Korean SBM):
Until the end of the 1970s, Korea's high growth strategy based on conglomerates was successful and the country was able to develop rapidly in a short period. On the other hand, this policy brought about numerous side effects. In Korea, it led to a widening of the imbalance within industries and regions, while overseas the aggressive export strategy led to protectionism in developed countries.

Considering this situation, since the early 1980s the Korean government has tried to foster small and medium sized enterprises (SMEs) by strengthening assistance in areas of tax and finance and simplifying the establishment procedure for SMEs and high-tech start-ups. As part of such initiatives, the government announced on 24 December 1986 a plan to foster stock trading of SMEs in order to assist their efforts to raise capital as they were unable to access the stock market owing to their small size and financial status.

In October 1991, an over-the-counter (OTC) intermediary floor was set up for trading between customers and securities firms and between securities firms themselves. In July 1996, a more systematic market, KOSDAQ, was developed as the trading system evolved from the outmoded man-to-man auction method to a computerized competitive trading system.

2) Why did you "go it alone" rather than develop a cooperative arrangement with regional partners?

It was simply explained with the following two factors: 1) It was not easy for Korean individuals to invest in foreign markets; and 2) There were no SBM comparable to Kosdaq when it was established.

However, through a strategic alliance with NASDAQ and other advanced Exchanges, KOSDAQ's operations will approach closer to global standards. In order to increase market transparency, continuous efforts will be made to encourage voluntary disclosures and to enhance investor relations.

3) What are examples of "best practices" that have underpinned the development of the SBM?

(1) Scheme for Activation of the KOSDAQ Market (24 June 1998)
The KOSDAQ market increased its capital from 5 billion to 21.03 billion won by rights issue. The discrimination between Kosdaq-listed companies and KSE-registered companies was abolished.
- Expansion of capital gains tax-exemption.
- Approval on treasury stock acquisition, new debenture issue and special stock dividend etc.

(2) Scheme for Activation of the KOSDAQ Market (4 May 1999)
The KOSDAQ market's listing requirements were mitigated.
Dealer trading system for non-listed and non-registered issues was introduced.
Support of tax benefit was applied to KOSDAQ's listed companies.
- For KOSDAQ's listed SME's, reserve benefit could be granted up to 50% of business income of that year.

(3) Scheme for Improvement of the KOSDAQ Market's Soundness (20 December1999)
- Listing and de-listing system were improved.
- Stock trading watch function was strengthened.
- Professionalism and independence of the KOSDAQ Committee were strengthened.
- Computer system was expanded and its infrastructure was supplemented.
- Operation system was clearly classified by adjusting the roles between KOSDAQ and its related organizations.

(4) Development of Electronic Disclosure System (1 July 2000)
It was to improve transparency of the market by providing corporation information in a prompt and accurate manner.

(5) Measures for Market Operation Improvement to Stabilize the Kosdaq Market (31 August 2000)
- It was reformed as venture firms oriented market.
- Objectivity and transparency of listing requirements were considered.
- Sanctions on false and unfaithful disclosures were strengthened.
- Efficiency and convenience of market trading system were raised.

(6) Various Measures to Support Venture Business

4) What lessons were learnt?

After the financial crisis, almost every economic activities had been frozen. During the time, investment in venture business had been sharply increased in the other part of the world, including the US market, which encouraged the Korean investors to invest in venture business. As the Kosdaq market had been ready at that time, we could have the chance to develop the venture industry.

5) What have been the most difficult challenges to establishing the market?

When the Kosdaq was established, there was no difficult challenge in Korea as the success of the Nasdaq was well recognized. However, the accounting and disclosure system, not only for the Kosdaq market but also for the financial market in general, were not well-developed, several steps to improve the Kosdaq market's soundness.

6) What has been the response of the international investment community?

The Kosdaq market is not popular in the international community. The portion of foreign investment hit 17% in 1998 when the Kosdaq market sharply grew. After 1999, the share of foreign investment has maintained around 1.00%. The average share of foreign investment was 1.20% in 1999.

7) Please add any other comments or reflections on your experience with the SBM.

Currently more than half of engineering students in most prestigious universities in Korea plan to start their own business after graduation. The three key factors for success in venture business; technology, management, and financing, are well integrated with the growth of the KOSDAQ market. Also, the infrastructure of the KOSDAQ market is advancing very rapidly with increases in venture capitals, angel investors, and rating agencies for funds. The Kosdaq market is still learning from the development of Nasdaq, which have grown in 30 years to compete with the 200 year old NYSE.

The visions of KOSDAQ can be summarized as follows:
(1) Capital market specializing in venture businesses and knowledge-based small and medium enterprises.
(2) Capital market ensuring freer capital flow.
(3) A top tier Asian securities market utilizing the latest technology .

SURVEY OF BEST PRACTICES IN THE DEVELOPMENT OF SECOND BOARD MARKETS (SBMS) IN SELECTED ECONOMIES

Name of survey respondent	: Ramon T. Garcia
Economy	: The Philippines
Position	: President, The Philippines Stock Exchange, Inc.
Second Board Market	: Second Board

1) What were the motivating factors behind establishment of the SBM?

The motivating factors behind the establishment of our Second Board were as follows:

(1) Emergence of Second Boards abroad.

(2) Development of IT industry in the Philippines.

2) Do you have a bias toward "stand alone" or a cooperative regional SMB?

No. A Cooperative regional SMB may be more favorable than a "stand alone" due to the following:

(1) For a wider dispersion of shares, thus maintaining a more liquid market for the security.

(2) For varied reasons (e.g., some companies may target international investors).

(3) For a more efficient market that will help issuers raise their funding requirements.

3) What factors need to be considered when deciding between "stand alone" and cooperative models?

The factors which should be considered when deciding between "stand alone" and cooperative models are as follows:

(1) Standards for listing and continuing listing.

(2) Settlement procedures.

(3) Tax issues.

(4) Inter-jurisdictional issues (conflicts of law).

4) Please add any other comments or reflections on your experience with the SBM.

For the year 2000, the Philippines Stock Exchange approved the listing of the shares of only 4 companies in the Second Board:

(1) Active Alliance , Incorporated

(2) Diversified Financial Network, Inc

(3) Macondray Plastics, Inc

(4) Pancake House

The listing of the said companies are fairly recent and thus may be premature to comment.

SURVEY OF BEST PRACTICES IN THE DEVELOPMENT OF SECOND BOARD MARKETS (SBMS) IN SELECTED ECONOMIES

Name of survey respondent	: Ngiam Kee Jin
Economy	: Singapore
Position	: Associate Professor, National University of Singapore
Second Board Market	: SESDAQ

1) What were the motivating factors behind establishment of the SBM?

(1) To enable smaller Singapore companies with growth prospects to raise funds in the capital market.

(2) To provide small and medium-sized Singapore-incorporated companies with the means to raise funds for their operations and investments.

(3) To enable younger, medium-sized companies to tap longer-term funds to finance their business operations.

(4) To accommodate companies which do not meet the high standards imposed by the Main Board

2) Why did you "go it alone" rather than develop a cooperative arrangement with regional partners?

(1) Exchanges in the regions do not have a second board until recently.

(2) Exchanges in the region view each other as competitors and rivals.

(3) Different regulatory standards and supporting financial infrastructure.

3) What are examples of "best practices" that have underpinned the development of the SBM?

Honest and full disclosure – a financial institution was recently charged in Court for misleading investors about the subscription rate for an IPO that it has underwritten.

4) What lessons were learnt?

(1) SESDEQ is too small with only 103 companies listed and with market capitalization of only S$4 billion against the main board's S$356 billion (June 2001).

(2) Lack of liquidity by going alone.

(3) SESDAQ stocks are more volatile because SESDAQ firms are small and are concentrated in two sectors: electronics and informational technology.

5) What have been the most difficult challenges to establishing the market?

(1) Get more companies (local and foreign) to list on SESDAQ.

(2) Enlarge investor base.

(3) Enhance liquidity for individual stocks.

(4) Should SESDAQ be a high-risk board or a small cap board? For technology firms, risk is no longer a function of size.

6) What has been the response of the international investment community?

Not many foreign firms are listed on SESDAQ. Foreign investors are also inactive because SESDAQ has a small market capitalization and a low liquidity. To remedy the situation, the government has actually encouraged a link-up between the second boards of Hong Kong and Singapore.

7) Please add any other comments or reflections on your experience with the SBM.

SURVEY OF BEST PRACTICES IN THE DEVELOPMENT OF SECOND BOARD MARKETS (SBMS) IN SELECTED ECONOMIES

Name of survey respondent : Vincent Lin
Economy : Chinese Taipei
Position : Securities and Futures Commission, Ministry of Finance
Second Board Market : TIGER

1) What were the motivating factors behind establishment of the SBM?

We established SBM in order to strengthen the capital-raising ability, gain more popularity and get a better chance in recruiting people for small-scale or high-tech companies.

2) Why did you "go it alone" rather than develop a cooperative arrangement with regional partners?

Rose – Chinese Taipei's Over-the-counter Securities Exchange -- has studied SBM for a long time. Based on our former studies, only domestic small size companies are eligible for listing on SBM. That is why we didn't seek any cooperative opportunities from regional partners.

3) What are examples of "best practices" that have underpinned the development of the SBM?

To ease the listing requirements (see the table below), making more company capable of getting into the capital market.

	Main board	SBM
Advisory period	At least 12 months	At least 6 months
Years of establishment	3 years	One full fiscal year
Capital	AT least NT100 million	(1) NT20 million or more with no accumulated losses, or (2)Net-worth of NT2 billion.
Profitability	Yes	None

4) What lessons were learnt?

At the beginning, the trading system of SBM is not so convenient to investors. We have tried our best to correct all shortcomings. We have learned that a convenient trading system is crucial to a new market.

5) What have been the most difficult challenges to establishing the market?

The gap between the ideas of the market regulators and that of the market participants is the most difficult challenges in establishing the SBM. For example, the market regulators concern about the market safety while the market participants focus on the liquidity of a market.

6) What has been the response of the international investment community?

Since the liquidity of the SBM market is lower than the main board, the international investment organizations are not as interested as in the main board.

7) Please add any other comments or reflections on your experience with the SBM.

The SBM cannot compete with other securities markets if the SMB simply facilitates the specific companies to be listed rather than gives the investors economic incentives to participate in.

SURVEY OF BEST PRACTICES IN THE DEVELOPMENT OF SECOND BOARD MARKETS (SBMS) IN SELECTED ECONOMIES

Name of survey respondent	: John Tognino & Tim McCormick
Economy	: United States of America
Position	: Executive Vice President (Sales) & Nasdaq Academic Liaison
Second Board Market	: NASDAQ

1) What were the motivating factors behind establishment of the SBM?

One of the primary reasons for establishing our secondary markets (Small Cap, OTCBB, Pink Sheets) was to provide Issuers, Capital Markets Professionals, and Entrepreneurs with a market place to bring companies public, raise capital, and create jobs. The criteria for listing on the established markets precluded many companies for going public (capitalization, number of stockholders, PX, etc.). Yet these embryonic issuers play a vital role in the economic development of their industry, regions, and country.

2) Why did you "go it alone" rather than develop a cooperative arrangement with regional partners?

Traditionally the Over-the-Counter (OTC) Market in the USA was the home and breeding place for these young, innovated start up companies. When Nasdaq was introduced in 1971, it's technology and growth became strongly linked to the Technological Revolution and its emphasis on fostering competition soon became the model for the world.

3) What are examples of "best practices" that have underpinned the development of the SBM?

The establishment of a multi-dealer system. True competition with the dealers openly competing with each other. More transparency with quotes, volumes, reporting of applying standards of Corporate Governance was also essential particularly as it relates to requiring disclosure on the part of the company for their performance, results, outlook, etc. Requiring all markets, regardless of size, to meet minimum standards of regulation and compliance and applying our regulatory ability evenly and fairly to all.

4) What lessons were learnt?

(1) A fair, transparent, new regulated marketplace encourages economic growth through creating jobs, financing and overall wealth.

(2) Embryonic companies grow over time and can become giants.

(3) Having alternative marketplaces (based in part on size) encourages Issuer growth.

5) What have been the most difficult challenges to establishing the market?

(1) Building something that the trading industry will use and embrace. That is why you need the contribution and support of important players within the trading industry.

(2) Having the technology and its development accepted by all of the market participants.

(3) Educating everyone that "more" regulation, when evenly and fairly applied is good for everyone.

(4) Committing the required capital to ensure technological innovation for the marketplace and enhanced regulation and supervision.

6) What has been the response of the international investment community?

The response of the International Investment community to Nasdaq since its inception in 1971 has been outstanding as evidenced by the acceptance of the Nasdaq model. In 1971 there was only one technologically, quote-driven, competitive, transparent market (Nasdaq). The rest were order driven, centrally located, manual, etc. Today there are only three central floor exchanges left around the world (NYSE, AMEX, Buenos Aires). Easdaq, Jasdaq, Kosdaq, the Neuer Mark, Mercate, Neuve March and Mother's are good examples as are the markets in Canada, Hong Kong, Kuala Lumpur, China and Australia, to name a few.

Foreign companies regularly prefer to list on Nasdaq rather than other markets around the world. More foreign firms are listed on Nasdaq than the NYSE. Markets around the world have tried to study the success of Nasdaq and duplicate it. The problem with that approach is that Nasdaq is in a constant state of improvement. While a relatively static dealer market model was successful for Nasdaq 20-30 years ago, it is doubtful that it would be as successful in today's environment. Nasdaq's open architecture allows any trading system or dealer to "plug in" at minimal cost. Thus, Nasdaq issuers and investors can get access to a variety of trading mechanisms and new financial innovations as soon as the come to the marketplace. This contrasts sharply with markets that force a "one-size-fits-all" approach to trading. Investors on Nasdaq have voted again and again that one size does not fit all.

Additional questions for NASDAQ:

7) Were there special reasons for separating trading in National Market System (NMS) stocks and Small Cap stocks on NASDAQ? Were any of these reasons related to marketing, promotion, efficiency of trading, or other factors relevant to issuers, regulators, or investors in smaller firm shares? How were the listing requirements established and how are they monitored?

Nasdaq was established in 1971 to provide more timely price information on actively traded securities that were not listed on any exchange (over-the-counter securities). Nasdaq provided real-time quotes via an electronic network, a much more efficient way for disseminating quoted prices to brokers. Prior to Nasdaq, quoted prices on over-the-counter securities were distributed on paper to brokers by the next business day. An additional benefit of Nasdaq was the increased data available to regulators to monitor the market on a real-time basis.

In April 1982, the Nasdaq created a tier, now called the Nasdaq National Market (NNM), for its most active and prominent securities. Nasdaq National Market securities became subject to real-time last trade reporting and higher listing standards than Nasdaq SmallCap Market securities.[1] The primary motivation for this was that Nasdaq sought to establish a market that could retain its listings of medium and large capitalization stocks. Since these firms accounted for the bulk of Nasdaq trading and listing revenues, Nasdaq had a strong financial incentive to retain them. The natural progression prior to the establishment of NNM was for firms to grow big enough on Nasdaq so that they could eventually list on the NYSE or Amex. With the establishment of NNM, Nasdaq signaled its move from a niche player (small-cap securities) to a direct competitor of the NYSE and Amex. Tiering allowed securities to associated with their peers for marketing purposes.

Thus, the separation was prompted by the desire to create markets for all classes of stocks to aid their growth. Technology, volume, market capitalization and the explosion of IPO's all fueled the separation. The concept of providing marketplaces for all companies was widely heralded and accepted. Think of companies that, at their inception, were too small, or did not meet the requirements of a SA Exchanges, or in some cases were not welcome on the traditional exchanges – Intel, Microsoft, MCI Worldcom, Oracle, Cisco, etc.

8) Were any exchanges in direct competition with the Small Cap NASDAQ market when it was established? What alternatives to NASDAQ Small Cap listing do listed firms have to the NASDAQ small cap market, if any? Was any consideration given to forming alliances or co-operative arrangements with these alternatives? What technical, regulatory, and competitive factors determined the structure and listing requirements of firms traded there?

Since 1971, our competitive landscape has been dominated by the "Auction" Market versus the "Negotiated" markets and not on classes of companies. The auction market model (established central exchanges) has given way to the negotiated model (Nasdaq)

[1] Nasdaq SmallCap Securities became subject to real-time trade reporting in June 1992.

which provides room for all companies and market participants with global linkage looming in the immediate future. Many pundits are convinced the “negotiated” market greatest growth is still ahead of us.

There were no competitors to the Nasdaq Small Cap Market when it was established in 1982. Securities can trade via the “Pink Sheets” or over-the-counter dealer market using the same mechanism (paper) in which they were traded before Nasdaq was formed. Recently, the National Quotations Bureau, owner of the pink sheets, replaced their paper “pink” sheets with a web based system. There was not much activity in securities traded exclusively on the pink sheets, so there was little to gain from an alliance. Again, the pink sheets is an information service as opposed to a trading platform.

The Amex established a small-cap company market about ten years ago that they called the “Emerging Company Market” (ECM) to compete with the Nasdaq Small Cap market. The ECM was a single specialist auction market similar to the main Amex listings except that the ECM had lower listing standards. However, due to low liquidity and poor screening of companies, the ECM folded a few years after in was started (see Aggarwal and Angel paper). Many of the companies on the ECM were being traded off-the-floor by dealers instead of on the Amex floor. So, the Amex was unable to garner the dominant market share in many of these issues. The dealer market might have provided more liquidity than a specialist market could provide. Also, a number of firms on the ECM were poor financial performers or fraudulent. This hurt the image of the ECM and may have dissuaded other firms from listing on the ECM and investors from trading these securities.

9) What aspects of the Small Cap market were essential for its success? What factors have been most rewarding or successful in its operation or structure?

A small cap market needs lots of companies and a replenishment of them through sources such as initial public offerings. Also, a few successes of companies that grow from small-cap to big-cap stocks can help promote its viability.

The early success of Nasdaq was due to the participation and liquidity that dealers provided to the market. Additionally, the inclusion of dealers in the development and decision-making processes of Nasdaq helped ensure that the trading community would be supportive new rules and structures.

10) What has been NASDAQ’s experience with the Small Cap market? In particular, what has NASDAQ learned about needs and problems facing issuers, investors, and traders with small firm public issues? Has the Small Cap Market been successful from NASDAQ’s point of view and what criteria are used to reach this assessment?

Many small cap companies fail or never grow. Thus, you cannot expect that a viable small cap market, in and of itself, will provide enough companies to sustain a main board market. Creation of a small-cap market can help. However, what has driven the growth of the Nasdaq National Market has been initial public offerings of medium and large firms, not “graduations” from the Nasdaq Small Cap Market.

Today, Nasdaq's primary function in the small cap tier is providing quote and trading information to issuers, investors, and traders. Additionally, a Nasdaq listing entails a certain degree of financial rigor that other companies do not have to abide by. This is particularly important given the large number of small cap related frauds in the U.S over the past 30 years.

The Nasdaq Small Cap Market has had limited success in terms of firm growth and stock performance. As most companies that started on it have either outgrown it or been delisted, it needs to be constantly replenished with firms to maintain its viability. During its initial years, it was successful at doing this and this was not a problem. However, over the past 5-10 years, it has been shrinking in terms of number of firms and volume. Most initial public offerings now list directly in the Nasdaq National Market. Some of the reasons for this shrinkage was self-induced such as the implementation of higher listing standards. Today, the Nasdaq SmallCap Market has become less important to Nasdaq's overall success.

SURVEY OF BEST PRACTICES IN THE DEVELOPMENT OF SECOND BOARD MARKETS (SBMS) IN SELECTED ECONOMIES

Name of survey respondent	: Richard Willis
Economy	: Germany
Position	: Staff, Deustche Boerse
Second Board Market	: Neuer Markt

1) What were the motivating factors behind establishment of the SBM?

(1) Need to create a market segment for high growth and technology companies.

(2) To harness significant investment capital to promote growth through facilitated access to equity capital.

(3) Need to differentiate this sector and create high-growth/technology peer group.

2) Why did you "go it alone" rather than develop a cooperative arrangement with regional partners?

(1) Neuer Markt integral part of wider Deutsche Borse strategy.

(2) Key element of iX merger negotiations with London Stock Exchange. Proposed merger of UK SBM with Neuer Markt, with further co-operation with Nasdaq.

(3) Largest SBM in Europe, most stringent standards and best liquidity. So co-operation should not weaken position.

3) What are examples of "best practices" that have underpinned the development of the SBM?

(1) Benefits of access to Xetra pan-European trading system.

(2) Un-bureaucratic listing requirements adapted to suit needs of this sector, whilst being the quickest listing process in the world (15 trading days).

(3) Liquidity enhanced by compulsory use of two market-makers, (21% monthly trading volume, July, 2001).

(4) More stringent reporting and disclosure standards than the main market (Regulated Market).

4) What lessons were learnt?

(1) Shared benefits through dual-listing, 29 in total (15 also on Nasdaq)

(2) Leading platform for European technology companies, 345 currently listed, with strong peer group representation across a range of technology sectors.

(3) Most international market in Europe, 57 listed companies of foreign origins (Europe, USA and Israel), representing 16% of market.

(4) Implementations of open and scalable sanctions procedure, following consultation with market participants.

5) What have been the most difficult challenges to establishing the market?

(1) Problem restoring confidence to entire segment after faltering performance of a few participants, with overall credibility affected by unprofessional practices of some issuers.

(2) Need to actively promote internalization of the Neuer Markt to achieve true pan-European impact in an increasingly competitive market.

6) What has been the response of the international investment community?

(1) Listed companies – significant number of non-German European and international companies listed on segment.

(2) Dual listers' – ability to combine access to German equity market and home exchange reflected in the number of dual listed firms.

(3) Investment funds – international investment funds participate strongly in Neuer Markt.

(4) International discussion and awareness – the Neuer markt receives widespread in-depth coverage in the financial press.

(5) English language and international accounting/regulatory standards – the ability to file exchange documents in English, and use of international accounting standards assists in enhancing the cosmopolitan nature of the market.

SURVEY OF BEST PRACTICES IN THE DEVELOPMENT OF SECOND BOARD MARKETS (SBMS) IN SELECTED ECONOMIES

Name of survey respondent	: Ms Karen Hui
Economy	: Hong Kong
Position	: Head - Listing, Regulation & Risk Management, Hong Kong Exchanges & Clearing Limited
Second Board Market	: Growth Enterprise Market (GEM)

1) What were the motivating factors behind establishment of the SBM?

The Growth Enterprise Market ("GEM") was established to provide capital formation for emerging companies to facilitate their business development and/or expansion. It helps to broaden the investment opportunity for investors.

2) Why did you "go it alone" rather than develop a cooperative arrangement with regional partners?

Hong Kong has its own market characteristics and legal and regulatory framework, and it is only natural for it to establish the second board on its own. Development of a viable cooperative arrangement with other markets in the region would involve complex issues of regulatory harmonization and currency conversion which could delay indefinitely the establishment of the second board.

3) What are examples of "best practices" that have underpinned the development of the SBM?

GEM has an enhanced disclosure based approach, with emphasis on greater disclosure, for example, the publication of quarterly results. GEM issuers are also required to adopt good corporate governance of quarterly results. GEM issuers are also required to adopt good corporate governance measures such as, the establishment of an audit committee, and appointment of a qualified accountant and a compliance officer.

Given the potentially high-risk nature of new or emerging companies, prominence is given in the listing documents to any significant risk factors these companies may face.

4) What lessons were learnt?

As is common with SBMs, liquidity tends to be unevenly distributed among the stocks that are listed on GEM.

Given the significant potential investment risks of new or emerging companies, GEM was originally intended to target only sophisticated investors (i.e., professionals and knowledgeable retail investors). However, GEM's experience has shown that, in respect of "hot" issues, market response from retail investors has tended to be very broad based. In order to ensure that the less sophisticated retail investors are fully aware of the risks involved, much more investor education has to be carried out.

5) What have been the most difficult challenges to establishing the market?

It was necessary to put in place and maintain the right balance to ensure that there is adequate investor protection on the one hand and sufficient flexibility for the market to develop and grow on the other.

Given that GEM caters for a wide range of companies, from new and emerging companies to more established ones, again the right balance of regulatory obligations have to be put in place.

Maintaining and broadening liquidity has also been a challenge for the smaller and new start-ups.

6) What has been the response of the international investment community?

Initially, there was keen interest from the international investment community, from both advisers and investors. Unfortunately, this interest has waned somewhat following the substantial correction in TMT (Technology, Media and Telecommunications) stocks around the world.

7) Please add any other comments or reflections on your experience with the SBM.

There is a need to regularly review the regulatory framework and market performance to ensure that a proper balance between investor protection and market development is maintained as the second board grows and matures.

SURVEY OF BEST PRACTICES IN THE DEVELOPMENT OF SECOND BOARD MARKETS (SBMS) IN SELECTED ECONOMIES

Name of survey respondent	: Names withheld upon request
Economy	: Malaysia
Position	: Kuala Lumpur Stock Exchange
Second Board Market	: Second Board

1) What were the motivating factors behind establishment of the SBM?

In the late 1980's, Malaysia was undergoing a drive towards greater industrialization and promoting the development of small and medium sized industries. Many companies, particularly those involved in manufacturing activities, required capital to expand, but did not meet the minimum entry requirements to be listed on KLSE. The Exchange therefore established the Second Board in November 1988 with less stringent initial listing requirements in terms of paid-up capital and profit track record.

The objective was to provide a market for small and medium sized companies that had good growth prospects and to enable them to raise capital funds to finance business expansion. One of the indirect reasons is that it was in line with the government's objective of inculcating an investing culture amongst the Malaysian public to increase the population's wealth. Retail investors were not a significant group then. With the establishment of the Second Board it would provide more opportunities for retail investors to invest in companies that are meant to be cheaper than main board 'blue chip' companies.

2) Why did you "go it alone" rather than develop a cooperative arrangement with regional partners?

Alliances between stock exchanges and cross border trading were uncommon during the time the Second Board was launched. Furthermore, the objectives to be achieved were directly related to Malaysia's development and economic policies

3) What are examples of "best practices" that have underpinned the development of the SBM?

The requirements for continuing listing obligations were largely the same as the Main Board, the only difference being in the minimum entry requirements for initial listing.

In addition, measures such as "lock-in" periods and profit guarantees were put in place to ensure that the Second Board was principally used to fund business growth and not for cashing out by shareholders.

4) What lessons were learnt?

Many Second Board companies were family-controlled, which sometimes resulted in a lack of understanding by the controlling shareholders of the role of a public company, rights of minority shareholders and the need for more structured and professional business practices.

5) What have been the most difficult challenges to establishing the market?

There is a perception that companies listed on the Second Board are not of the same fundamental quality as Main Board companies, due to the lower admission requirements. Second Board companies are also relatively illiquid compared to counterparts on the Main Board, given the smaller issued and paid-up capital.

6) What has been the response of the international investment community?

Due to the small issued and paid-up capital of the companies leading to the lack of liquidity in Second Board shares, international investors generally have not invested substantially in Second Board companies.

7) Please add any other comments or reflections on your experience with the SBM.

The Second Board has fulfilled its purpose of providing an avenue for smaller/medium sized companies to raise capital. At present, there are 297 companies listed on the Second Board (out of a total of 804.) It should also be noted that many Second Board companies have recorded encouraging business growth, as evidenced by the 48 companies that have successfully graduated to the Main Board (as at 31 March 2001.)

SURVEY OF BEST PRACTICES IN THE DEVELOPMENT OF SECOND BOARD MARKETS (SBMS) IN SELECTED ECONOMIES

Name of survey respondent	: Names withheld upon request
Economy	: Malaysia
Position	: Malaysian Exchange for Securities Dealing and Automated Quotation
Second Board Market	: MESDAQ

1) What were the motivating factors behind establishment of the SBM?

(1) To enable high growth and technology companies with little or no track record to raise capital from the capital market.

(2) To initiate the move towards disclosure-based regulation from merit-based regulation in Malaysia, where MESDAQ became the first front line regulatory organization in the Malaysian capital market.

(3) To provide a capital-raising avenue for the science and technology industry in Malaysia and the Multimedia Super Corridor (MSC), to jump-start the development of a knowledge-based economy.

(4) To help facilitate the growth of small and medium scale enterprises and industries in Malaysia.

(5) To catalyze the use of technology in the Malaysian capital market.

(6) To assist in developing a more vibrant venture capital industry in Malaysia by providing a viable exit route and value recognition for its investments.

2) Do you have a bias toward "stand alone" or a cooperative regional SMB?

A cooperative regional SBM is the way forward considering the following factors:

(1) Traditional borders of market trading activity are being challenged by new technology and increased globalization.

(2) Co-operation is needed in order to tap a wider pool of investors and issuers to attract greater liquidity.

(3) To provide the opportunity for developing markets to learn from the experiences of the more advanced markets.

(4) To achieve greater economies of scale and scope in order to remain competitive.

One of the initiatives taken by MESDAQ towards this direction is the allowance of dual listings in MESDAQ and NASDAQ for MSC status companies.

3) What factors need to be considered when deciding between "stand alone" and cooperative models?

Any regional alliances would have to take into account the individual market's unique characteristics such as regulations, policies, profile of investors/issuers, and what the prospective partner has to offer, in terms of better liquidity, number of companies listed, type of technology used, to make the partnership beneficial to all the parties involved. Any alterations made in these unique characteristics to suit the strategic alliance should be aimed to improve the market, for example, through the following ways:

(1) Sharing and transfer of knowledge and technology between alliance partners.

(2) Enhancements in IT through the adoption of a common messaging standard which allows for systems integration to facilitate straight through processing, cross-border trading and clearing & settlements.

(3) Time zones – it is more feasible to be aligned with partners from different time zones. This can help create seamless cross-border trading that is as close as possible to a 24/7 system. This also facilitates arbitraging, thus making our markets more attractive, pumping more liquidity into our counters and help exposing our high growth markets to a larger pool of foreign investors.

(4) Reputation and strength of the prospective partners, which can add value to the exchange in terms of branding.

(5) Regional cooperation will also have to take into account barriers to capital flow in respective economies.

4) Please add any other comments or reflections on your experience with the SBM.

(1) The importance of public education, branding and public relations, which help promote the second board exchanges as a viable avenue for capital raising and investment. The success of SBMs deepens and broadens the overall capital market in a country. All market participants need to have a better understanding about the role of SBMs, as investing in small cap companies differs from that of Main Board companies. Differences surface in terms of market making, membership, rules, profile of market (types of issuers, investors, and risks) etc.

(2) The need to provide sufficient accessibility of investors and issuers to SBMs. These are paramount in ensuring the success of high growth markets.

(3) The need to provide issuer services – this is imperative as most companies seeking to list on MESDAQ are new and inexperienced, compared with their more established counterparts that qualify to list on the KLSE. As such, these companies may require some form of “hand-holding”, especially in the initial stages, to help them approach the market earlier.

(4) Upstream activities – besides facilitating the primary and secondary markets, second board exchanges should also be involved in the development of the upstream activities related to its market like the venture capital industry and private equity.

Appendix Table 3: Index and Volume Data for Selected Second Board Markets

Panel A: Monthly Index Selected Exchanges

Year	Month	Hong Kong – GEM: *Growth Enterprise Index*	Korea – Kosdaq: *Composite Index*	Singapore – Sesdaq: *UOB Sesdaq Index*	US – Nasdaq: *Nasdaq Composite Index*	Germany – Neuer Markt: *Nemax All-Share Index*	Malaysia – KLSE: Second Board Index	Malaysia – Mesdaq: *Mesdaq Composite Index*
1997	Jan		120.79	104.84	1,379.85		611.65	
	Feb		118.35	119.49	1,309.00		649.53	
	Mar		120.47	106.65	1,221.70	609.48	656.38	
	Apr		125.29	108.48	1,260.76	515.55	559.39	
	May		130.81	113.37	1,400.32	654.07	569.45	
	Jun		133.11	112.72	1,442.07	786.09	562.66	
	Jul		133.13	126.86	1,593.81	1,068.16	546.82	
	Aug		134.01	106.99	1,587.32	988.36	373.74	
	Sep		132.74	113.44	1,685.69	941.99	406.93	
	Oct		120.43	83.91	1,593.61	924.93	349.58	
	Nov		109.81	82.44	1,600.55	916.15	242.21	
	Dec		97.25	62.95	1,570.35	1,000.00	162.93	
1998	Jan		103.12	54.96	1,619.36	1,121.11	152.14	
	Feb		103.27	75.15	1,770.51	1,442.05	201.10	
	Mar		103.06	75.34	1,835.68	2,181.65	179.81	
	Apr		90.60	66.64	1,868.41	2,379.35	135.34	
	May		78.29	57.80	1,778.87	2,443.08	111.47	
	Jun		74.67	46.99	1,894.74	2,333.16	97.99	
	Jul		69.81	44.94	1,872.39	2,664.41	89.06	
	Aug		63.76	39.40	1,499.25	2,151.53	76.83	
	Sep		61.03	45.82	1,693.84	2,110.82	92.69	
	Oct		63.94	63.77	1,771.39	2,191.53	98.66	
	Nov		64.13	65.29	1,949.54	2,551.46	172.07	
	Dec		75.18	56.24	2,192.69	2,744.45	158.37	
1999	Jan		76.16	60.78	2,505.89	3,887.05	163.05	
	Feb		72.30	60.68	2,288.03	3,786.82	141.59	
	Mar		79.79	63.32	2,461.40	3,248.63	114.70	
	Apr		119.10	89.05	2,542.85	3,413.77	151.90	119.37
	May		145.48	136.22	2,470.52	3,218.71	150.99	104.37
	Jun		179.55	191.43	2,686.12	3,412.01	179.77	103.12
	Jul		192.97	155.99	2,638.49	3,276.51	167.62	100.00
	Aug		200.96	154.72	2,739.35	3,187.60	164.42	73.44
	Sep		157.12	135.36	2,746.16	2,680.60	153.60	53.44
	Oct		179.38	132.71	2,966.43	2,967.67	157.30	68.75

Year	**Month**	**Hong Kong – GEM:** ***Growth Interprise Index***	**Korea – Kosdaq:** ***Composite Index***	**Singapore – Sesdaq:** ***UOB Sesdaq Index***	**US – Nasdaq:** ***Nasdaq Composite Index***	**Germany – Neuer Markt:** ***Nemax All-Share Index***	**Malaysia – KLSE: Second Board Index**	**Malaysia – Mesdaq:** ***Mesdaq Composite Index***
	Nov	461.56	229.20	139.33	3,336.16	3,689.64	154.34	70.31
	Dec	1,037.79	256.14	153.65	4,069.31	4,571.18	180.57	85.94
2000	Jan	611.52	190.37	142.92	3,940.35	5,285.01	207.09	87.50
	Feb	771.08	266.37	142.47	4,696.69	7,752.97	272.25	105.62
	Mar	888.89	221.27	131.68	4,572.83	6,634.90	298.50	103.12
	Apr	611.95	158.18	119.02	3,860.66	6,322.77	253.49	93.75
	May	468.04	144.15	96.09	3,400.91	5,482.03	245.06	106.25
	Jun	454.38	151.86	110.35	3,966.11	5,369.16	215.19	100.00
	Jul	456.77	115.80	104.09	3,766.99	5,255.52	213.06	95.00
	Aug	468.22	108.59	101.88	4,206.35	5,550.89	203.25	91.90
	Sep	396.31	90.17	92.14	3,672.82	4,875.46	172.31	90.23
	Oct	344.90	74.68	89.45	3,369.63	4,361.25	165.67	94.41
	Nov	324.71	67.26	82.06	2,597.93	3,023.46	154.15	92.12
	Dec	309.42	52.58	76.90	2,470.52	2,729.86	132.98	93.10
2001	Jan	315.57	84.36	75.17	2,772.73	2,814.47	136.14	86.76
	Feb	297.75	76.76	75.06	2,151.83	2,116.75	124.12	66.84
	Mar	256.89	68.43	62.03	1,840.26	1,684.93	107.64	71.32
	Apr	264.33	78.97	64.24	2,116.24	1,934.97	104.21	76.88
	May	285.89	81.35	64.90	2,110.49	1,792.43	105.91	69.83
	Jun	267.27	76.87	68.74	2,160.54	1,503.47	106.93	67.23

Panel B: Correlation Among Monthly Returns on Market Indices

Exchanges	Hong Kong	Korea	Singapore	US	Germany	Malaysia KLSE	Malaysia Mesdaq
Hong Kong	1.0						
Korea	0.552202	1.0					
Singapore	0.490123	0.398092	1.0				
US	0.610967	0.661096	0.613054	1.0			
Germany	0.474248	0.562188	0.345822	0.815552	1.0		
Malaysia KLSE	0.741507	0.568922	0.204495	0.514141	0.581462	1.0	
Malaysia Mesdaq	0.12589	0.223294	-0.297012	0.341546	0.476109	0.402892	1.0

Panel C: Monthly Trading Volume

Year	Month	**Hong Kong: GEM** (million shares)	**Korea: Kosdaq** (million shares)	**Singapore: Sesdaq** (million shares)	**US: Nasdaq** (million shares)	**Malaysia: KLSE** (million shares)	**Malaysia – Mesdaq**
1997	Oct			295.16		871.81	
	Nov			175.33		748.65	
	Dec			145.53		479.47	
1998	Jan			141.95	14,006.96	583.62	
	Feb			324.59	14,903.06	1,357.48	
	Mar			382.37	17,289.03	559.35	
	Apr			198.19	17,684.96	300.88	
	May			126.23	14,676.05	282.70	
	Jun			109.47	16,298.97	160.96	
	Jul			295.12	17,915.22	104.28	
	Aug			249.01	15,975.30	104.80	
	Sep			504.63	16,143.43	259.90	
	Oct			1,018.73	19,687.75	291.60	
	Nov			966.78	17,965.79	1,168.38	
	Dec			278.40	19,493.72	1,277.53	
1999	Jan		64.03	768.67	20,909.79	516.94	
	Feb		64.43	263.90	17,746.63	316.86	
	Mar		76.97	450.71	21,625.48	233.14	
	Apr		162.28	2,524.58	23,829.95	622.53	151,300
	May		164.90	3,305.54	18,841.74	886.52	801,800
	Jun		329.50	7,497.93	20,002.70	654.29	321,800
	Jul		405.07	3,917.22	21,223.56	1,118.16	123,700
	Aug		457.54	1,586.90	20,560.64	243.50	15,700
	Sep		401.43	1,231.16	21,826.81	156.32	32,100
	Oct		1,158.75	784.45	23,722.37	178.82	104,600
	Nov		2,863.74	1,799.59	29,778.13	217.14	21,300
	Dec		2,525.48	1,267.66	31,627.48	550.94	18,600
2000	Jan	611.52	2,036.02	1,568.75	34,851.75	1,044.13	5,000
	Feb	771.08	3,968.07	2,275.43	36,240.22	2,558.17	481,400
	Mar	4,406.50	4,915.21	1,205.64	43,765.39	1,507.96	372,300
	Apr	2,449.91	2,813.74	580.73	35,647.22	939.12	59,700
	May	1,137.61	4,276.17	1,795.93	31,185.17	632.36	50,000
	Jun	1,420.01	5,145.15	1,467.00	33,823.98	416.98	72,500
	Jul	4,410.77	3,962.11	1,334.67	31,357.52	511.45	50,900
	Aug	4,644.23	5,272.45	973.34	33,551.06	354.27	322,200
	Sep	3,372.42	3,042.31	524.88	35,133.58	211.09	2,700
	Oct	1,559.72	4,793.42	367.10	44,591.40	410.24	225,600

Year	Month	**Hong Kong: GEM** (million shares)	**Korea: Kosdaq** (million shares)	**Singapore: Sesdaq** (million shares)	**US; Nasdaq** (million shares)	**Malaysia: KLSE** (million shares)	**Malaysia – Mesdaq**
	Nov	2,605.11	6,000.02	497.09	38,648.86	308.74	391,500
	Dec	3,326.40	4,825.68	297.73	44,948.72	185.95	107,700
2001	Jan	2,792.07	9,150.60	473.12	50,132.93	214.41	117,000
	Feb	3,106.92	9,911.64	1,588.91	37,003.87	121.11	16,000
	Mar	4,284.05	7,321.99	980.91	45,570.33	153.39	93,800
	Apr	2,843.47	6,992.48	1,120.51	43,256.72	156.04	
	May	7,144.26	10,263.85	1,386.27	42,000.06	198.16	
	Jun	6,104.70		1,581.71		225.69	

Sources:
Hong Kong – www.hkgem.com/statistics
Korea – www.kosdaq.or.kr
Singapore – Datastream and www.sgx.com
US – Datastream
Germany – Datastream
Malaysia – www.mesdaq.com.my & provided by the Securities Commission, Malaysia

Appendix Table 4 - Stock Trading Mechanisms of Second Board Markets in Selected Economies

Economies	Second Board	Stock Trading Mechanism
Japan	Mothers	Tokyo Stock Exchange Trading Network System (ToSTNet). Auction market trading system.
Korea	Kosdaq	Competitive auction method.
The Philippines	Second Board	Matching offers based on Best-Bid-Offer. Orders are entered into the trading system, and prioritized first by price and then by time.
Singapore	Sesdaq	Central Limit Order Book Book System (CLOB). System matching buy and sell orders, with real time execution based primarily on priority on best-priced orders.
Chinese Taipei	Tiger	
United States	Nasdaq	Quotation-driven market, based on multi-dealer system. Independent dealers commit capital and openly compete with one another for investors' buy and sell orders, by displaying quotations representing their buy and sell interest—plus customer limit orders—in Nasdaq-listed stocks. Each dealer has equal access to Nasdaq's trading system, which broadcasts their quotations simultaneously to all market participants. By standing ready to buy and sell shares of a company's stock, the dealers provide a unique service, and their combined sponsorship helps meet investor demand and creates an environment of immediate and continuous trading.
Germany	Neuer Market	Compulsory use of 2 market-makers.
Hong Kong	GEM	Automatic Order Matching and Execution System (AMS). Electronic order-driven system with orders matched automatically subject to price fulfillment and order queue.
Malaysia	Mesdaq	Mesdaq Order Routing and Execution System (MORE). Order-driven market where all buy and sell orders are automatically matched based on predetermined algorithm.
Malaysia	Second Board (KLSE)	System on Computerized Order Routing and Execution (SCORE). Order-driven market where all buy and sell orders are automatically matched based on predetermined algorithm.

Sources:

Japan – http://www.tse.or.jp/english/cash/tostnet/etostnet20010615.doc
Korea – http://www.kosdaq.or.kr/english/top8.html
The Philippines – http://www.pse.org.ph
Singapore – http://info.sgx.com/webinvedu.nsf/Investor+Education+-?Openview
Chinese Taipei –
United States – http://www.nasdaq.com/about/about_nasdaq_long.stm#execution
Hong Kong – http://www.hkgem.com/investor/e_default.htm
Malaysia – http://www.mesdaq.com.my & http://www.klse.com.my/website/trdgstlm/trdsys.htm