Equity Diversification Among The Four Asian NICs
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ABSTRACT
Recent studies have indicated the potential gains to U.S. investors from international portfolio diversification. Due to the rapid growth of the four Asian newly industrialised countries (NICs), namely, Hong Kong, Singapore, South Korea and Taiwan, it is believed that U.S. investors will become increasingly interested in these equity markets. The purpose of the present study is to investigate from the U.S. perspective, the prospects of diversifying across the countries. The results indicate that a diversified portfolio among these markets yields a higher return-to-risk ratio than investing in the U.S. market alone.

INTRODUCTION
Recent studies show potential gains achieved by U.S. investors diversifying internationally rather than only domestically. There are various reasons why international investment has gained popularity in recent years. Some believe that certain specific foreign markets would yield higher returns than domestic markets; so they diversify in an attempt to increase their returns. Others find that price movements in many foreign stock markets have a low correlation with U.S. stock price movements; so it is possible to reduce the overall riskiness by diversifying into foreign markets. Statistical sources such as Capital International of Geneva, Switzerland provide evidence of the superior performance and the growing relative size of several non-U.S. markets.

During 1983, U.S. investors made almost $4 billion of net new purchases of foreign equities, and at the end of that year owned $26.5 billion of foreign equities (Survey of Current Business, 1983). Although most of these foreign equities were in Canadian and European securities, interest has been increasing in Asia-Pacific equities. For example, U.S. investors accounted for 1.43% of the trading volume on the Tokyo Stock Exchange in 1980 but increased to 2.94% in 1983. Many recent studies have focussed on equities in Japan and Australia. This article, however, examines international diversification potential among the four Asian newly industrialised countries (NICs), namely, Hong Kong, Singapore, South Korea and Taiwan. Because of the rapid growth in economics in NICs, it is believed that U.S. investors will become increasingly interested in these markets.

LITERATURE REVIEW
Building on the basic Markowitz framework, Grubel (1968) analysed the effects of diversification using stock market indices in 11 countries. He found that a diversified portfolio of international stock indices dominated the U.S. index in terms of ex-post risk and return, and that the Japanese, South African and Australian indices constituted large proportions of the optimal portfolios.

Then, using indices of stock markets of 28 countries, Levy and Sarnat (1970) analysed the gains from international diversification for the 1951-1967 period. They found that investment in the U.S. and Japanese stocks constituted large

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proportions of optimal portfolios, largely because of the negative correlations during this period between the stock market indices of these two countries. They also found that only when the American investor diversified his portfolio to include such countries as Japan and South Africa and the developing countries of South America and Asia that a portfolio’s risk-return combination would significantly improve over a U.S. portfolio. They attributed this finding to the fact that Japanese and South American equity returns were not highly correlated with those of other countries, and that many of the larger industrialised countries’ stock index returns were more highly correlated with one another.

Grubel and Fadner (1971) tested the hypothesis that correlations among stock indices would be higher for longer holding periods. The basis for this hypothesis is the expectation that returns are influenced by random factors (such as financial news and speculation) in the short run, but such random factors would be dominated by real factors (such as economic growth and earnings) in the long run. On the premise that real factors are related among countries, the stock indices should be related as well. Grubel and Fadner compared inter-country correlations of weekly, monthly and quarterly holding periods and found that correlations were highest for quarterly returns and lowest for weekly returns, thereby supporting the hypothesis. This suggests that there is less potential reduction in risk from investing across countries over longer holding periods.

Solnik (1974) examined stock returns in foreign markets for the period 1966-1971, and concluded that international diversification is attractive, regardless of the investor’s home country and whether exchange-rate changes are hedged or uncovered.

Errunza (1983) examined the effects of diversifying across less developed countries, and showed that internationally diversified portfolios of such country indices dominated a U.S. stock index over the time periods examined. This result is consistent with earlier studies.

However, the result of any gain from international diversification based on ex-post data is valid only when the inter-country correlation coefficients are stable over time. Results from intertemporal stability tests are mixed (Farragher and Hui, 1985; Makridakis and Wheelwright, 1974; Maldonado and Saunders, 1981; Panton, Lessig and Joy, 1976; Phillipatos, Christofi and Christofi, 1983; Shaked, 1985; Watson, 1980). However, the more recent studies generally support intertemporal stability of inter-market correlations.

Shaked (1985), for example, tested the intertemporal stability of correlation coefficients based on monthly real rates of return (adjusted for U.S. inflation) of 16 stock markets of industrialised countries for the period 1960-1979. His results implied that the correlation structure was unstable for relatively short investment horizons of one year. However, results for investment horizons of two and a half years, five years and ten years revealed a consistently and substantially increased degree of stability in the international correlations structure as the assumed investment horizon was lengthened.

Farragher and Hui (1985) examined the correlation structure of the U.S. and six Asia-Pacific stock markets based on weekly returns on each market’s overall price index for the period 1975-1983. Their results indicated that the intermarket correlation coefficients were less than one and were fairly stable over time. The result of the above studies support the practical use of mean-variance models for determining ex-ante optimal international portfolios. Shaked (1985) clarified that even if there is no information about intertemporal stability of inter-country correlation coefficients, investors may still achieve a substantial reduction in risk as long as the various stock markets are less than perfectly positively correlated. The issue of stability is related to the optimal reduction in portfolio risk by ex-ante determination of international diversification.

Asia Pacific Journal of Management, January 1988 133