

# INTERNATIONAL DIVERSIFICATION BENEFITS IN ASEAN STOCK MARKETS: A REVISIT

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## Abstract

With abounding evidence supporting the presence of non-linearity in stock returns series, coupled with theoretical and empirical works suggesting a potential loss in standard Johansen cointegration method if the underlying data generating process is non-linear in nature, this study re-examines the issue of stock markets integration in the ASEAN region using a more robust test. Specifically, the Bierens's (1997) non-parametric cointegration test is selected in views of its potential superiority over standard linear Johansen and Juselius (1990) method at detecting cointegration when the data generating process is non-linear. The results from the Bierens's test indicate that there is a common force which brings all the five ASEAN stock markets together in the long run. In this case, the shocks from any of these five markets may spillover to the other markets in the same region. The recent Asian financial crisis bears a good testimony to this 'contagion effect'. More importantly, the Bierens's (1997) non-parametric cointegration test provides robust evidence suggesting that there would be no long run gain from international portfolio diversification. Specifically, investors with long run horizons may not benefit from an investment made across the countries in this ASEAN region. One possible explanation for this intra-ASEAN stock markets integration is their strong economic ties, especially intra-ASEAN trade and investment that has indirectly linked their stock indices.

*Keywords:* Stock market integration; Portfolio diversification; Non-parametric cointegration test; ASEAN stock markets.

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## I. INTRODUCTION

One of those significant developments occurred in the ASEAN economies is the implementations of deregulation and liberalization of financial markets in this region. Specifically, in the latter half of the 1980s and early years of the 1990s, most of the governments of ASEAN gradually liberalized their stock markets, giving foreign investors the opportunity to invest in domestic securities. Singapore, however, abolished foreign exchange controls and foreign ownership regulations much earlier in 1978 (refer Table 1)<sup>1</sup>. On the other

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<sup>1</sup> The issue of dating liberalizing events is a somewhat unsettled matter in the literature. Various important sources available in the literature are Bekaert and Harvey (2000), Henry (2000a) and Kim and Singal (2000). This study uses Bekaert and Harvey (2000) as the main reference. Since Singapore is not included in all the above-mentioned sources, we resort to the IMF publications.