Comovement between Developed, Emerging and Frontier equity markets: Evidence from Europe and Asia-Pacific

Stock market comovement is a topical area of research in the field of finance as it has important implications for international investors and policymakers. This study explores different aspects of comovement between developed market (DM), emerging market (EM) and frontier market (FM). First the study examines how the degree of comovement between developed, emerging and frontier markets has evolved over the last couple of decades. Second, it identifies the factors that influence comovement between these three types of equity markets. Third, the study examines the value addition provided by emerging markets and frontier markets in improving the overall performance of an international portfolio. All these empirical analysis is performed for two regions viz. Europe and Asia-Pacific. Finally, a primary survey is administered among international investors to understand their perception towards investment in emerging markets and frontier markets.

Dynamic Conditional Correlation Generalized Autoregressive Conditionally Heteroscedastic method is employed to understand the nature of comovement between developed, emerging and frontier equity markets. Panel regression method is employed to identify the factors that drive comovement between these three types of equity markets. Further, optimal portfolios are created to examine the incremental contribution of emerging and frontier equity markets in enhancing the diversification benefits of an international portfolio. To understand the perception of investors on investment in emerging and frontier equity markets, a primary survey was conducted among top management and portfolio managers of fund management companies specializing in emerging and frontier market investments.

The results reveal that there is a higher degree of correlation between European equity markets as compared to Asia-Pacific region. Hence, it can be deduced that European equity markets offer limited diversification opportunities as compared to its Asia-Pacific counterparts. The results also suggest that the 2008 global financial crisis (GFC) had a deep impact on Europe, while Asia-Pacific region was better able to withstand the effect of the same. The study indicates that the comovement between European DM-EM pair is primarily driven by bilateral trade and stock market development. The comovement between European DM-FM pair is explained by capital account openness, macroeconomic convergence process and banking sector development. The key determinants of comovement between European EM-FM pair are bilateral trade and
capital account openness. The comovement between Asia-Pacific DM-EM pair is explained by bilateral trade relationship, GDP growth rate differential, volatility ratio and the 2008 GFC. Since the degree of correlation between Asia-Pacific DM-FM and EM-FM is very low, it is believed that no meaningful interpretation can be drawn from the regression results. The analysis of portfolio performance measures suggests that European frontier markets provide greater potential than European emerging markets in augmenting the performance of the international portfolio. In contrast, Asia-Pacific emerging markets outperform its regional frontier counterparts in improving the risk-return profile of the benchmark portfolio. The results also reveal that frontier market investments are not for investors with low risk appetite. The primary survey analysis indicates that investors are aggressive on investments in emerging markets but are conservative on frontier markets investments. Further, investors rank restriction on capital movement, lack of transparency in rules and regulations and political risk as the key obstacles to investment in both the emerging and frontier markets.

On the basis of the findings, the study makes key recommendations to international investors and policymakers. To the international investor, the study recommends holding Asia-Pacific portfolio of developed and emerging markets over European portfolio of developed and frontier markets. The better performance of the Asia-Pacific portfolios can be attributed to its higher GDP growth rate, lower degree of comovement and better stock returns. An investor who is keen on holding European portfolio is recommended to expose his portfolio to European frontier markets. In contrast, an investor who is keen on holding Asia-Pacific portfolio, should expose his portfolio to Asia-Pacific emerging markets. The study cautions investors against interpreting low volatility of frontier markets as lower risk levels. The low volatility of frontier equity markets is owing to its the small market size and thin trading volumes. The study recommends European policymakers to be cognizant of the fact that their economies are well integrated with each other. Hence, they should formulate suitable economic stabilization policies to insulate themselves from external shocks. The study encourages policymakers of emerging markets to continue implementing legal and regulatory reform measures to boost foreign investments into their countries. The study advises policymakers of frontier markets that investors are primarily concerned about the economic growth rate, political stability and the financial market development while investing in frontier markets. Hence, they should take steps to ensure that all these three aspects are well maintained.