

Chapter 53

Macroeconomics and Its Impact on Stock Markets of India, China, and Japan: ASIAN Markets

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ABSTRACT

The objective of this chapter is to examine the long-run and the short-run relationship between India, China, and Japanese stock markets and key macroeconomic variables such as exchange rates and inflation (proxied by consumer price index) of ASIAN 3 economies (India, China, and Japan). Monthly time series data spanning the period from 2008 January to November 2016 has been used. The unit root test, the cointegration test, Granger causality test, and pooled mean group estimator have been applied to derive the long-run and short-run statistical dynamics. The findings of pooled estimated results of ASIAN 3 countries show that exchange rate has a positive and significant long-run effect on stock markets while the inflation has a negative and insignificant long-run effect. In the short run, there is no statistically significant relationship between macroeconomic variables and stock markets. This study emphasizes the impact of macroeconomic variables on the stock market performance of a developing economy (India and China) and developed economy (Japan).

INTRODUCTION

From past few decades, international investors and researchers have focused on emerging financial markets, especially in ASIAN markets. Stock markets in these nations have provided attractive investment opportunities to foreign investors. The effectiveness of the growing markets presumes more significant as the pattern of investments is hastening in the secondary market because of political and legal changes and liberalising all other blockades has opened the market for foreign investors. Effective Market Hy-

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pothesis advocated by Eugene F. FAMA in 1970, the stock price is a proficient market indicator which will respond to all information and facts about the changes in macroeconomic variables.

Globalisation and extensive growth in trade investment and integration of international financial markets and participation of foreign institutional investors have enhanced the relationship between global stock markets and foreign exchange markets and thereby strengthening the relationship between exchange rate changes and stock market fluctuations. This phenomenon has been the subject matter of study by scholars during various financial crises, such as the 1997 Asian financial crisis, the sub-prime mortgage crisis, and the recent European debt crisis. Therefore, a thorough understanding of the long- and short-run interactions between the global stock markets and foreign exchange markets can be effective in enabling governments in various countries to develop relevant financial policies and investment portfolios and to reduce any possible adverse impacts on a country's economy.

India's economy has been one of the stars of global economies (Economy watch, 2008), as it is among the fastest growing and fourth largest economy in terms of purchasing power parity in the world. The capital investment boom in the country drives the current growth phase of the Indian economy. Markets react promptly to any news, at times even any forms of instability including but not limited to escalating political tensions or even war rumours of war, change in regulatory environment (business), deemed as negative by the business (investing) community and interest rate fluctuations in general performance of the economy (Moneybiz, 2008). Some other variables like population, movements in global markets, money supply growth, manufacturing sector growth and aggregate deposits of scheduled banks that affect the various economic changes (Gera, 2007).

During last decade China has been demonstrating the quite significant growth of economics. This attracted quite a lot of investors. The study of Luo, Gan, Hu, Tzu-Hui Kao (2009) showed that Chinese stock market has experienced a rapid growth and has played important roles in the growth and development of the Chinese economy since the launching of the Shanghai and Shenzhen Exchange in early 1990. According to Degan (2009) investing in Chinese stocks is finding the right way of profiting from China's expected exceptional and unique future growth in the twenty-first century, and at the same time avoiding the risks represented by corruption, murky corporate financial statements, shady corporate governance, and complicated opaque government bureaucracy. With such risks, it is not surprising that the Chinese stock markets are extremely volatile.

For Japanese stock market, Hamao (1988) concludes that changes in expected inflation, unanticipated changes in risk premia, and the term structure of interest rates significantly affect the Japanese stock returns. Mukherjee and Naka (1995) observe a long run relationship between the Japanese stock market and six macroeconomic variables.

Many studies focused on studying the relationship between macroeconomic variables and stock markets or stock returns of individual countries. However, in this study, we attempt to do the cross-country analysis of developed and developing economies of Asian countries like India, China and Japan. In this study, we contribute to the existing literature by studying the asymmetric effects of monetary policy on real output in the ASIAN-3 countries in a panel setting by using the recently formulated pooled mean group (PMG) estimator proposed by Pesaran et al. (1999).

In this paper, we examine the relationships between the ASIAN Stock index and macroeconomic variables (Inflation, measured by consumer price index and exchange rate) on a monthly data from 2008 to 2016 using Granger Causality Test, cointegration tests and the pooled estimated results. Specifically, the main objective of the study is to understand how the stock markets and macroeconomic indicators (exchange rate and inflation) are integrated in India, China and Japan. Secondly, to describe the 'causal

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