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Global stock market reactions to scheduled U.S. macroeconomic news announcements

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Abstract

This study investigates how global stock markets are integrated with respect to the U.S. macroeconomic news announcements. Although both investors on U.S. and non-U.S. stock markets are interested in those news releases their general importance to stock market investors can be expected to vary across economic regions as a result of differences in dependence on international trade, size of the market, foreign ownership and the industrial and economic structures. To investigate this issue we analyze the behavior of GARCH volatilities around ten important scheduled U.S. macroeconomic news announcements on 35 local stock markets that are divided in six regions. The results show that the G7 countries, the European countries other than G7 countries, developed Asian countries and emerging Asian countries are closely integrated with respect to the U.S. macroeconomic news, while Latin America and Transition economies are not affected by U.S. news. These results support the earlier findings, such as Bekaert and Harvey [Bekart, G. and Harvey, C., 1995, Time varying world market integration, Journal of Finance 50, 403–444.] and Rockinger and Urga [Rockinger, M. and Urga, G. 2001. A time-varying parameter model to test for the predictability and integration in the stock markets of Transition economies, Journal of Business and Economic Statistcs 19, 73–84.], that the market integration is high among the major stock markets while some emerging markets are segmented. This implies that the international investors are able to obtain diversification benefit by investing in those segmented emerging regions.

JEL classification: E52; G14
Keywords: Macroeconomic news; Volatility; Market integration

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1. Introduction

This study focuses on stock market integration. The study investigates especially how global stock markets are integrated with respect to the scheduled U.S. macroeconomic news announcements. While the existing literature such as Bracker and Koch (1999) and Martens and Poon (2001) examine correlation structures across international equity markets and Booth, Martikainen, and Tse (1977) investigate the spillover phenomenon, the issue of integration with respect to scheduled announcements has, despite its importance, received less attention so far. This study aims to fill this gap.

Both investors on U.S. and non-U.S. stock markets are interested in the situation of the U.S. economy because of its leading role in the world economy. U.S. macroeconomic news is undisputedly one of the main issues of interest on stock markets worldwide, as they concern investors both on U.S. and non-U.S. stock markets. For investors operating on the U.S. stock market, the importance of different scheduled news announcement varies as shown, for example, by Bollerslev, Cai, and Song (2000) and Graham, Nikkinen, and Sahlström (2003). Similarly, their importance for investors on non-U.S. stock markets can be expected to vary. Although the order of importance of macroeconomic news releases is likely to be the same on all stock markets, their general importance to stock market investors can be expected to vary across different economic areas. Previously, the overseas impact of the U.S. macroeconomic news on stock markets has been documented by Becker, Finnerty, and Friedmam (1995) for U.K. stock market, Kim (2003) for advanced Asia-Pacific stock markets, Connolly and Wang (2003) for U.S., U.K. and Japan stock markets, and Nikkinen and Sahlström (2004a) for German and Finnish stock markets.[1]

The purpose of this study is to examine the impact of scheduled U.S. macroeconomic news announcements on global stock markets reactions. To achieve this goal, we analyze the behavior of GARCH volatilities around ten important scheduled U.S. macroeconomic news announcements on 35 local stock markets. The macroeconomic news announcements investigated are consumer confidence, consumer price index, employment cost index, employment situation, gross domestic product, import and export price indices, NAPM (National Association of Purchasing Management report): manufacturing and non-manufacturing, producer price index and retail sales. The local stock markets represent the G7 countries, the European countries other than G7 countries, developed and emerging Asian countries, the countries of Latin America and countries from Transition economies.

In this paper, it is hypothesized that uncertainty associated with the announcements of the U.S. economic indicators is reflected differently in volatilities of local stock exchanges. This is to be expected, given that the stock markets differ considerably in terms of size, industrial diversity, and proportion of foreign ownership. The magnitude of reaction is therefore hypothesized to depend on the degree of integration and development of the particular market. The degree of economic integration affects stock market reactions in two main ways. First, it affects the performance of companies from small and medium-sized enterprises (SMEs) to large multinational companies (MNCs). For example, MNCs are not dependent on the situation on one particular market but the worldwide economic situation affects their performance. Similarly, the success of SMEs can either depend directly on the worldwide economic situation or indirectly, for example, through their multinational customers. Second, stocks of local exchanges are owned by both local and foreign investors and the proportion of foreign ownership varies across different exchanges and over time.

[1] Furthermore, Ito and Roley (1987) investigate their impact on Yen/dollar exchange rate, Kim (1998) on USD/AUD exchange rate, Kim and Sheen (2000) on Australian interest rate markets and Christie-David, Chaudry, and Khan (2002) on bond prices on different markets.