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Full Length Article

Macroeconomic factors and foreign portfolio investment volatility: A case of South Asian countries

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Abstract

Macroeconomic factors play a pivotal role in attracting foreign investment in the country. This study investigates the relationship between macroeconomic factors and foreign portfolio investment volatility in South Asian countries. The monthly data is collected for the period ranging from 2000 to 2012 for four Asian countries i.e. China, India, Pakistan and Sri Lanka because monthly data is ideal for measuring portfolio investment volatility. For measuring volatility in foreign portfolio investment, GARCH (1,1) is used because shocks are responded quickly by this model. The results reveal that there exists significant relationship between macroeconomic factors and foreign portfolio investment volatility. Thus, less volatility in international portfolio flows is associated with high interest rate, currency depreciation, foreign direct investment, lower inflation, and higher GDP growth rate of the host country. Thus findings of this study suggest that foreign portfolio investors focus on stable macroeconomic environment of country.

Keywords: Macroeconomic factors; Foreign direct investment; Foreign portfolio investment; GARCH model

1. Introduction

In the last few decades foreign private investment has become the main topic for research. Foreign private investment is the result of financial liberalization in. In 1980's, developed countries had adopted financial liberalization to attract huge influx of foreign private investment. Foreign private investment is main way of doing investment in different countries. It has two components' foreign direct investment (FDI) and Foreign portfolio investment (FPI). Lipsey (1999) argues that foreign direct investment (FDI) has more permanent nature than foreign portfolio investment (FPI) and FPI is also known as “hot money”. Therefore, the desire of developing countries is to increase the foreign capital so as to enhance economic development of country (Broto, Diaz-Cassou, & Erce-Dominguez, 2011).

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According to the theory of portfolio investment by Hymer (1976), foreign portfolio investors are attracted by the high interest rate because it reduces the borrowing cost; foreign portfolio investor will invest until the interest rate gets equal all over the world therefore it might be said that foreign portfolio investment is affected by domestic interest rate and not by domestic returns. However, this theory's structure is so naïve when the problems of risk, uncertainty and volatility are introduced. Therefore, we must consider the risk factor in terms of foreign investment volatility. The term volatility is concerned with the international investors' intention to invest for short-term benefits and they withdraw their investment on uncertain conditions (Kodongo & Ojah, 2012). Thus, volatility refers to the uncertainty regarding the flow of FPI in the country.

Portfolio investors also consider the host country exchange rate along with the interest rate. Devaluation of host country currency motivates the foreigners to invest due to higher return (Bleaney & Greenaway, 2001); the fluctuation in real exchange rate increases foreign investment volatility. Moreover, inflation also affects volatility in FPI. Volatility in FPI is enhanced by decrease in return and increase in inflation. Agarwal (1997) suggested that home country low return and high inflation motivates portfolio investors to invest in other countries where inflation is low and return is high. Mody, Taylor, and Kim, 2001 favored it by arguing that increase in inflation is linked to decline in foreign portfolio investment. Moreover, foreign portfolio investors are attracted by high returns (Chakrabarti, 2001; Gordon & Gupta, 2003; Çulha, 2006; Froot, O'Connell, & Seasholes, 2001). They argue that stock market is an indicator of performance and investor expectations for host country. Thus, rise in index would increase the stock prices leading to higher returns and ultimately lower the volatility in foreign portfolio investment.

Foreign portfolio investment is chosen on two bases. First, FPI is more volatile in nature so FPI is attaining the attention of regulators, policy makers and investors because it is challenging the monetary policy by affecting macroeconomic variables. Second, the literature has focused on the relationship of capital flows (in general) to macroeconomic variables so this factor leaves the gap for identifying the effect of macroeconomic variables to FPI volatility specifically. Several studies have highlighted the importance of capital flows in financial development and economic growth of the country but few studies have investigated the effect of macroeconomic factors on foreign portfolio investment volatility. Therefore, this study is aimed to fill in the research gap in South Asian countries because we could not find any such study, to the best of our knowledge,that has focused on the effect of macroeconomic factors on FPI volatility in this region. Moreover, these countries have favorable environment for FPI by keeping interest rate high and devaluation of their home currency.

2. Literature review

There are several factors that bring volatility in foreign portfolio investment volatility. One of these factors is exchange rate; fluctuations in exchange rate increase the volatility in FPI. Therefore investors regularly monitor the exchange rate. Darby, Hallett, Ireland, and Piscitelli (1999) concluded that the exchange rate fluctuations had significant affect on FPI Moreover, Carrieri, Errunza, and Majerbi (2006) argued that one should consider real exchange rate than nominal one because real rate eliminates the effect of inflation and is better indicator of FPI volatility. It is find out that real exchange rates (RER) and foreign portfolio flows changed over time (Kodongo & Ojah, 2012). In past several studies, the inverse relationship between exchange rate and FPI is observed (Eun & Resnick, 1988; Froot & Stein, 1991, Bleaney & Greenaway, 2001; Ersoy, 2013). Therefore, the host country's currency devaluation induces foreign investors to acquire local assets at lower prices. Thus, we hypothesize that there is significant relationship between real exchange rate and portfolio investment volatility.

The second important factor that affects FPI is inflation. Increase in the inflation in one country and more return on portfolio investment for foreign investors stimulate them to invest in host country. Therefore, increasing trend of inflation bring volatility in portfolio investment. In similar fashion, Agarwal (1997) found negative relation between inflation rate and exchange rate with foreign portfolio investment. On the other hand, Broner and Rigobon (2004) pointed out that FPI volatility was little explained by inflation rate and argued that economic development was the good estimator of volatility. Therefore, improving financial markets might reduce the volatility in capital flows. Low inflation rates in liberalized economies could be the possible explanation of relatively low effect of inflation (Kraay, 1998). But Rai and Bhanumurthy (2004) found negative effect of domestic inflation on FPI and concluded that inflation in home country and higher returns in host country induce investors to move in host country. Thus, our second hypothesis is that there exists significant relationship between inflation and foreign portfolio investment volatility.