



Opinions


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The International Transmission of U.S. Monetary Policy on the Korean Economy



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With the U.S. economy looking resilient, the Federal Reserve ("the Fed") is pushing to normalize the stance of monetary policy. The Fed ceased the bond-purchasing program (QE) in October 2014, and raised the federal fund rate in December 2015 for the first time since the 2008 global financial crisis. People worry that the Fed's contractionary monetary policy may have negative influences on emerging economies, referred to as the spill-back effect. In May 2013, Ben Bernanke, the former Chairman of the Federal Reserve, mentioned that the Fed may taper the size of the QE (taper tantrum), and emerging economies experienced sudden capital outflow in the short run; on average, a 7.0 percent devaluation of emerging economy currencies and 12.0 percent drops in the stock market. Korea was not an exception, as foreign investors in Korea sold KRW 5 trillion (USD 4.4 billion) worth of stocks in one month (June 2015); the Korean stock market index fell 9.8 percent and the Korean won devalued by 4.1 percent. Similar patterns emerged for the first increase of the federal funds rate in December 2015. However, those negative impacts were recovered within one quarter. Thus, under the sluggish recovery of the US and the world economy, those negative effects will be relatively short-run and limited.

Using Korea's monthly macroeconomic and financial market data during the period of 2009-2016, we found that the Korean financial market may experience significant net foreign outflows in the stock market when there is contractionary monetary policy shock in the US. Based on the VAR impulse response results, with a 0.25 percent increase in the US policy rate, KRW 3 trillion (USD 2.6 billion) capital outflows in the Korean stock market can be estimated within the first three months, which is about 0.7 percent of total foreign investment in the stock market. After the first three months, capital outflows in the stock market become insignificant. In the Korean bond market, we cannot find significant capital outflows at any horizon. Data shows that the Korean bond market had experienced capital inflows even during the taper tantrum and the first increase of the federal funds rate in December 2015.

The Korean won depreciates when there are contractionary US monetary shocks, but the period is limited in the short run. In terms of exchange rate volatility, the Korean won is less volatile than other emerging economy currencies during tranquil times, but much more volatile in crisis periods.¹ After the 2008 global financial crisis, the Korean won becomes more (less) volatile when it depreciates (appreciates), which is a typical pattern of asset prices; "The stair up and the elevator down." This may be important because the impact of contractionary US monetary shocks on real macro variables in Korea, such as industrial production and export, is not significant in bivariate VAR, but becomes significant when we take the volatility of won/dollar exchange rates into account.

The Korean economy has adopted macro-prudential policies related to the foreign-exchange market; the short-term external debt ratio has decreased from 47.2 percent in 2008 to 27.1 percent in 2015, while international reserves have increased from USD 20.4 billion in 1997 to USD 368 billion in 2015. Thus, Korea has sufficient capacity to absorb external shocks. Under US monetary normalization, short-run capital outflows in portfolio investment (stock and debt market investment) could occur, which may have limited influence on the real economy in Korea. However, as there are not many policy tools that help to alleviate capital outflows in stock and debt markets, close monitoring of those markets are required. The Korean government should be aware that the volatility of the Korean won can hike during the process of US monetary normalization, which can lead to negative impacts on the economy through declining investment and exports. **KIEP**

¹ Seo et al., (2011), "Backgrounds of High Volatility of Won/Dollar Exchange Rate," BOK Economic Brief 2011-1 (in Korean).