OC14029

Study on the Credit Ratings of Sovereign Debts and Stock Markets

Hong Rim
Robert Setaputra

John L College of Business
Shippensburg University (PA, USA)

ABSTRACT

In recent years, sovereign debt instruments of several countries have been downgraded due to increasing national debt and economic downturns. The U.S. government agencies (e.g., Treasury Department, Government Accountability Office, and Congressional Budget Office) showed that the U.S. government has been facing a series of financing challenges. Economic downturn and changes in tax policies had significant impacts on tax revenue in the short-run, whereas federal expenditures have increased for various reasons (e.g., unemployment benefits, safety net spending, and wars). In the long-run, expenditures related to healthcare programs (e.g., Affordable care, Medicare, Medicaid) are expected to grow considerably faster than the economy as the population matures. In April 2011, Standard and Poor (S&P) announced a negative outlook on the AAA rating of the U.S. government debt instruments with a remark that the U.S. government and policy-making process lead the U.S. to the brink of default. S&P considered the U.S. government budget deficit (of more than 11% of GDP) and net government debt, rising to more than 80% of GDP by 2013, to be too high in comparison to other "AAA" countries.

The U.S. government has enjoyed the "gold standard" of AAA rating from major rating agencies (i.e., Fitch, Moody's, and S&P) for many years. If the debt services are not met in a timely manner, investors will price the chance of default into the future interest rate. Moody's, for example, considers the expected value of debts in the event of a default with the probability of default and contractual requirements above a certain credit rating. After the initial negative outlook (April 2011), S&P downgraded the U.S. government debt from AAA (outstanding) to AA+ (excellent) in August 2011. This downgrade was openly criticized by U.S. government, political figures, businessmen, and scholars, but the S&P insisted that meaningful progress towards balancing the budget should be made to move the U.S. back to a "stable" outlook.

The credit ratings on national debts by credit rating agencies will affect the interest rates that the U.S. must pay on its debt (over $16 trillion). The recent downgrade would cost the U.S. government and ordinary consumers billions of dollars by jacking up interest rates and a host of other rates (e.g., prime lending rate, credit cards, mortgages, …). Because of the S&P downgrade, the major U.S. market indexes sharply declined, as much as 5 to 7% on August 8, 2011. Bloomberg data shows that the cost to insure U.S. debts against default has risen from 25 basis points (on average) in 2007 to a range of 55 to 75 basis points in 2011. The political brinksmanship in the U.S. highlights that the U.S. policy making and its governance become less stable, less effective, and less predictable than what was previously believed. The resulting agreement fell well short of the comprehensive fiscal consolidation program, which may lead the real economy to collapse.

It is of great importance for institutional and individual investors to understand the impacts of sovereign debt downgrading on stock market and their potential losses from debt holdings. For risk diversification and hedging activities, investors need to understand how stock markets

react to the downgrading of national debts and other financial events (sequester or fiscal cliff). It has long been debated how major shocks, which originated in one economy, affect other markets in integrated financial markets. The downgrading of this nature could have significantly affects stock markets, movements of cash flows across nations through global banking activities and trading, foreign direct investments, and hedge funds.

This study is to 1) compare the impacts of national debt downgrading by rating agencies on stock markets in Europe and the U.S. and 2) analyze the volatility spillover effects between them. This study will provide answers to the following questions: 1) Are there any differences in reacting to credit downgrading in developing or developed economies?; 2) Does the U.S. market remain dominant in these markets even after the downgrade?; 3) Is there any change in the inter-market relationships (correlations) after the downgrade?; 4) Do the relationships between financial markets remain stable after the downgrade?; and 5) Does the downgrade affect the volatility spillovers from one to the other markets (i.e., Asia, Europe). Empirical findings of this study will be of great importance to (individual, institutional) investors in managing their foreign exposures and for policymakers to make effective policies and their implementation to avoid (possible) fiscal troubles and economic downturns.

Our preliminary empirical results show the following: 1) There are significant differences in reacting to credit downgrading in developing or developed economies; 2) the U.S. market still remains a dominant force in financial markets in Asia and Europe; 3) the degrees of regional and global market integration have slightly increased after the downgrading; 4) the degree of integration between the U.S. and Asian markets has not changed significantly but the U.S. and European markets became more integrated; and 5) there have been observed strong spillover effects from the U.S. market to financial markets in both Asia and Europe.