

Sudden Spikes in Global Risk

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Summary

Recent episodes (October 2008, May 2010, July/August 2011) have witnessed huge spikes in equity price risk (implied volatility). For example, in the United States the VIX quadrupled during the fall of 2008. But this was hardly a phenomenon limited to the United States. The large spike in risk was seen all across the globe during these episodes, both in industrialized and developing countries.

Apart from their large size and global nature, several features characterize these risk panic episodes. First, there is considerable variation across countries in the extent to which risk increases. Second, the relative extent to which countries are affected by these global risk panics varies substantially across episodes. Third, it is hard to connect these large spikes in risk to a similarly large shock to macro fundamentals. Finally, it is hard to connect the extent to which countries were affected by the 2008 panic to the financial linkages that they had to the epicenter of the crisis.

We provide an explanation for these risk panic features in the context of a two-country model that allows for self-fulfilling shifts in risk. The paper builds on Bacchetta, Tille and van Wincoop (2011), who develop the concept of self-fulfilling risk panics in a closed economy setting. A circular relationship between the stochastic process of the asset price and asset price risk gives rise to self-fulfilling shifts in risk. We show that the extent to which individual countries are affected by a risk panic depends both on the fundamental hedging properties of the assets and on a self-fulfilling aspect that results from a circular relationship between asset prices and their covariance with the global asset payoff.