The Quarterly Review of Economics and Finance
Volume 54, Issue 2, May 2014, Pages 257-270

Variance swaps, non-normality and macroeconomic and financial risks

Belén Nieto [a], Alfonso Novales [b], Gonzalo Rubio [c]

Show more

https://doi.org/10.1016/j.qref.2013.12.002

Highlights

- Variance risk premia respond to changes in higher order moments of the market return distribution.
- The negative average variance risk premium reflects fears by investors to deviations from Normality in returns.
- Variance swaps hedge not only market returns, but also macroeconomic risks.
- The inclusion of variance swaps reduces the modified value-at-risk with respect to a portfolio holding only the equity market portfolio.

Abstract

This paper studies the determinants of the variance risk premium and discusses the hedging possibilities offered by variance swaps. We start by showing that the variance risk premium responds to changes in higher order moments of the distribution of market returns. But the uncertainty that determines the variance risk premium – the fear by investors to deviations from normality in returns – is also strongly related to a variety of macroeconomic and financial risks associated with default, employment growth, consumption growth, stock market and market illiquidity risks. We conclude that the variance risk premium reflects the market willingness to pay for hedging against these financial and macroeconomic sources of risk. An out-of-sample asset allocation exercise shows that the inclusion of the variance swap reduces the modified value-at-risk with respect to a portfolio holding exclusively the equity market portfolio.

Keywords

Variance risk premium; Non-normality; Economic risks; Hedging

Recommended articles

Cited by (0)

View full text