Stochastic Volatility in Interest Rates and Trend Cycles

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Abstract :
We estimate time series models to show that increased volatility in U.S. interest rates leads to a decline in the common trends of GDP, consumption, and investment, with this effect being more pronounced in emerging economies than in advanced ones. To explain this, we develop a small open economy model featuring endogenous growth, financial crises, and shocks to international interest rate volatility. Our model reveals that large interest rate shocks have asymmetric effects on firm values: adverse shocks cause disproportionately larger declines. This asymmetry arises because firms' values serve as collateral, tightening borrowing constraints and further depressing firm values and economic growth. Consequently, higher interest rate volatility reduces innovation and growth by making large interest rate shocks more likely.