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Currency price risk and stock market returns in Africa: dependence and downside spillover effects with stochastic copulas

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Highlights- JMFM

1. We model (extreme) downside currency price risk spillover effects to Africa's equity markets
2. The article exploits advances in VaR and conditional CoVaR measures based on copulas.
3. We find evidence of non-homogenous weak negative dependence between stocks and exchange rates
4. Higher (lower) equity prices are accompanied by depreciation (appreciation) of domestic currencies.

Abstract

We model (extreme) downside currency price risk spillover effects to Africa's equity markets using value-at-risk (VaR) and conditional value-at-risk (CoVaR) based on stochastic copulas. We find evidence of non-homogenous weak negative dependence between stocks and the US dollar (USD) and Euro (EUR) exchange rates, suggesting that higher (lower) equity prices are accompanied by depreciation (appreciation) of domestic currencies. We report spillover effects for the crisis and post-crisis periods of the recent global financial crisis. It is inferred from the findings that foreign exchange price risk may command some premium in some African equity markets, particularly during market turmoil to weaken any hedge capabilities of domestic stock markets for investors. Policy makers and investors seeking to shield a diversified portfolio against adverse effects of extreme market movements in the stock and exchange rate markets in Africa may take a cue from the results.

Keywords: CoVaR, currency, stock markets, copulas, downside spillovers, causality.

JEL Classification: C58, F31, G15