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Including commodity futures in asset allocation in China

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Abstract

In this paper, we investigate the role of eight commodity futures in asset allocation in China during the period January 2004–December 2015. The Chinese commodities and stocks are moderately correlated. We use quantile regressions based on a value-at-risk model to examine the relation between these two markets. We find no risk spillovers between the markets, suggesting that stocks and commodities in China are exposed to different risks. Using different asset allocation strategies, we show that including soymeal and soybeans in the Chinese stock index can offer some diversification gains. However, other Chinese commodities may not be useful for portfolio diversification.

Keywords:

Asset allocation | Chinese commodity futures | Portfolio gains | Risk spillovers

JEL Classification:

G12 G11 C58

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Notes

[1] Erb and Harvey (2006) note that commodity returns significantly come from the term structure of futures prices, but investors do not know what the term structure will look like in the future.

[2] A news report by the Financial Times (2016) states that retail traders in China are increasingly dominant in commodity trading and 'Chinese retail investors throw global commodities into a tailspin.' Based on data from the Dalian Commodity Exchange, retail investors hold more than 60% of futures products in China (South China Morning Post 2016). Bloomberg News (2016) also points out that 'billions of yuan have poured in from herd-like Chinese retail investors,' while commodities market volatility is mainly linked to hedge-fund transactions. In the Chinese stock market, several papers (e.g. Chen et al. 2013) have documented that retail investors are the major force driving stock price movement.

[3] We also use a sample-based version of the Black-Litterman model with the posterior covariance matrix discussed in Bessler and Wolff (2015).

[4] According to Harashima (2015), at the end of August 2015 the regulators ordered 164 individual futures investors to stop trading for a month because of wild swings in prices. In June 2015, they restricted selling in Chinese stocks, and, consequently, trading fell sharply. These government policies are not well defined and could raise doubts about the markets' future development.

[5] More specifically, as discussed in the previous section, adding soymeal with fully collateralized futures positions to the stock index can increase the Sharpe and Omega

ratios using any of the seven strategies. In contrast, if we use leverage, the portfolio performance of soymeal is improved for only three of the strategies.

Additional information

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