Speculator Spreading Pressure and the Commodity Futures Risk Premium

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Summary

- The Role of Speculator Spreading Pressure in Commodity Markets

1. Spreading pressure negatively predicts futures excess returns.

2. Low spreading pressure portfolios outperform high spreading pressure portfolios by an average of 17%.

3. Spreading pressure is an important factor in the cross-section.

4. Spreading pressure is related to the futures term structure, MSCI Emerging Markets Asia index returns, and economic uncertainty.

Key Channel – I

- How does spreading pressure impact returns in the commodity futures market?

- Importance of spreading pressure.

- If we assume that traders are shorting short term futures and buying long term futures, this may explain why the subsequent front month futures returns are lower.

- The challenge is that we do not observe commercial trader spreading position and details of the speculator spreading positions.

Key Channel – II

- **If it is risk, then what risk?**

- If a trader takes a calendar spread position, he/she is more likely to face basis risk.

- If a trader takes a directional position (i.e., long or short), he is more likely to face price risk.

- Boons and Prado (2019) finds that when speculators are reducing their spreading positions, the average commodity basis-momentum increases.

Decomposition of the spreading pressure

- If you decompose the spreading pressure as follows:

$$\overline{\mathrm{Spreadbar}}_t^i \;=\; \frac{1}{52} \sum_{k=1}^{52} \mathrm{Spread}_{t-k}^i$$

with

$$\boxed{\mathrm{Crowding}_t^i \;=\; \mathrm{Spread}_t^i - \overline{\mathrm{Spreadbar}}_t^i}$$

Hansen and Jagannathan (1997) distance measure

- In Table 8, the cross-sectional regressions, it may be helpful to report the Hansen and Jagannathan distance measure.

- The Hansen-Jagannathan distance measure will help us to gauge the pricing errors from various models.

Membership in the long and short legs

- To better understand the nature of the spreading factor, one can compute the number of months in which each commodity enters the long and short legs of the factor.

- This exercise can help us to see if the spreading pressure lean on commodities whose prices fluctuate in response to changes in macroeconomic conditions, such as crude oil or industrial metals.

Alternative test assets

- Lewellen, Nagel, and Shanken (2010) note that when portfolios exhibit a relatively strong factor structure, variables that are correlated with the true but unobserved risk factors might get identified as significant determinants of the cross section of commodity returns.

- To address the issue of potentially spurious factors, one idea is to implement the shrinkage-based estimator proposed by Bryzgalova (2021).

- Following Cochrane (2005), you can test additional test assets by interacting the baseline portfolios with one conditioning variable z.

- The choice of z should reflect developments in commodity markets and to capture the state of the economy (e.g., open interest growth).

Minor points