Meng Han

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Nationality: Chinese

Research Fields

Major Fields: Empirical Asset Pricing, Futures Markets
Secondary Fields: Theoretical Asset Pricing, Derivative pricing

Education

- **University of Groningen** — Groningen, Netherlands
  Ph.D. in Finance — *2018-2022 (expected)*
  - **Thesis**: Commodities as an asset class
  - **Supervisor**: Prof. Bert Scholtens, Prof. Lammertjan Dam
- **Ocean University of China** — Qingdao, China
  Master in Finance — *2015-2018*
- **Qingdao University of Science and Technology** — Qingdao, China
  Bachelor in Economics; Graduated with Distinction — *2010-2014*

Working Papers

Commodity Momentum and Reversal: Do They Exist, and If So, Why? (Job Market Paper)
Under Review: Journal of Commodity Markets
Abstract: Whether momentum and reversal patterns on commodity markets are sensitive to formation periods, why differences in these patterns seem to emerge for commodity futures versus spot markets, and how these patterns can be explained, remain unanswered questions. Investigating 23 commodities for a period of fifty years, I first show that the inclusion of the net convenience yield in the commodity spot return definition reconciles the differences in the results for commodity spot and futures markets. Quantitively consistent momentum and reversal effects exists on both commodity futures and spot markets: An initial momentum effect is followed by a reversal effect and then a momentum effect again, which are robust to the choice of formation period. The observed momentum and reversal patterns for commodities can be jointly explained by a combination of traditional asset pricing factors and a yield factor related to the net convenience yield.

The Net Convenience Yield and the Cross-section of Commodity Returns (with Lammertjan Dam and Bert Scholtens)
Under Review: Journal of Banking & Finance
Abstract: We study which risk factors explain the cross-section of commodity returns and decompose commodity returns into capital gains and net convenience yields. The findings reveal that a commodity-specific three-factor model performs best in explaining the

cross-section of commodity returns. As to individual commodity returns, the ability of risk factors to explain the cross-sectional variation mainly results from the yields. For commodity portfolios returns, the ability of risk factors derives from both capital gains and yields. Commodity-specific factors perform better in explaining the cross-section of portfolio capital gains, whereas asset pricing factors perform better in explaining the cross-section of portfolio yields.

What Drives Commodity Price Variation? (with Lammertjan Dam and Walt Pohl, submission ready)
Abstract: We investigate the importance of time-varying discount rates for commodity prices. We show that unlike other financial markets, in commodity markets time variation in discount rates play a smaller role. Instead, prices forecast future net convenience yields as well as future expected return. A high price for a commodity today forecasts a high expected future convenience yield and a low expected future return. For longer horizons, the variation in percentage net convenient yields seems mainly driven by net convenience yield growth, making commodities much closer to the classical textbook view of price changes representing news about cash flows.

WORK IN PROGRESS

Structural Estimation of Convenience Yield and Storage Cost (with Lammertjan Dam)

PUBLICATIONS

- "Probability density forecasts for steam coal prices in China: The role of high-frequency factors." *Energy* 220 (2021): 119758. (Corresponding Author)
- "Forecasting China's wastewater discharge using dynamic factors and mixed-frequency data." *Environmental Pollution* 255 (2019): 113148. (Corresponding Author)
- "Forecasting carbon prices in the Shenzhen market, China: The role of mixed-frequency factors." *Energy* 171 (2019): 69-76. (First Author)
- "Forecasting carbon dioxide emissions based on a hybrid of mixed data sampling regression model and back propagation neural network in the USA." *Environmental Science and Pollution Research* 25.3 (2018): 2899-2910.
- "Usefulness of economic and energy data at different frequencies for carbon price forecasting in the EU ETS." *Applied Energy* 216 (2018): 132-141.

PRESENTATIONS

2022	European Financial Management Association 2022 Annual Meeting (EFMA 2022), SOM PhD Conference
2021	International Risk Management Conference 2021 (IRMC2021), SOM PhD Conference, SOM PhD Seminar
2019	11th International Conference on Applied Energy (ICAE2019), Fourth Conference on Econometric Models of Climate Change (EMCC-IV)

Teaching Experience

Fall 2021	Responsible Finance and Investing (master), Teaching assistance
Spring 2022	Quantitative Finance (master), Teaching assistance

Selected Awards

2018-2022	Scholarship from China Scholarship Council (CSC)
2016	Second prize in the National Post-Graduate Mathematical Contest in Modeling, Excellent Graduate Student
2015	Second prize in the National Post-Graduate Mathematical Contest in Modeling
2014	Excellent Graduate in Shandong Province
2013	Excellent Student in Shandong Province
2012	First prize in the National Post-Graduate Mathematical Contest in Modeling, National Scholarship

Referee Service

Environmental Science and Pollution Research, Neural Computing and Applications (NCAA), Heliyon, Journal of Environmental Management, Carbon Management

Other Information

Programming: Python, MATLAB, STATA
Languages: Chinese (native), English (fluent)

References

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