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Comment Kalok Chan

There have been surges in commodity prices in the last decade, at least before the financial tsunami. There are many explanations being provided, such as political uncertainty, a significant growth in world outputs, and monetary expansion, as well as low real interest rates.

A few academic studies seek to investigate whether we can forecast global commodity prices. A notable study is Chen, Rogoff, and Rossi (2008), who find that a small number of commodity currencies can forecast global commodity prices. The explanations being given are that exchange rate reflects expectations of future changes of the economic fundamentals, which can affect demand/supply in commodity markets. A natural question being raised is: Can we use macroeconomic variables to forecast commodity prices?

In this chapter, Professors Groen and Pesenti examine whether we can forecast commodity prices using three models: benchmark models, based on random walk or autoregressive process, exchange rate-based model following Chen, Rogoff, and Rossi (2008, hereafter CRR), and factor-augmented models.

The strength of the chapter lies on it asking a very important question, based on a large data set and rigorous econometric analysis. Results indicate some evidence on forecastability of commodity prices using commodity currencies and macroeconomic variables.

However, the overall evidence is weak, as CRR finds that exchange-rate movement can predict all commodity price indices. On the other hand, this chapter finds that the predictive ability of macroeconomic variables is much weaker. But, given that exchange rates should incorporate information about the demand and supply for commodities, while macroeconomic variables represent business activities that lag behind financial transactions, the weak evidence on using macroeconomic variables might not be surprising. Even though the chapter attempts to use factor-augmented models, their performance is still poor, as the aggregation of macroeconomic variables might not be as effective as the currency market incorporating the relevant information.

Rather than looking at individual commodities, this chapter examines the commodity price indices instead. There are at least a few problems associated with using commodity price indices. First, there is heterogeneity across commodity price indices, so that different commodity price indices might vary in terms of number of commodities, commodity exchanges, and the weightings. Second, commodity price indices reflect both spot and futures

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contracts, so that they reflect information expected for different time periods. Third, commodity indices comprise a basket of commodities, and it could well be that any autoregressive process for the commodity indices come from cross-predictability across different commodities within the indices.

In addition, I have some other comments. One is that the chapter is not clear on the methodologies and variables being used. For example, it is not clear how many macroeconomic variables are being used for forecasting commodity prices. It is also not clear how the authors select the variables to predict commodity prices. There is also no mention about the number of principal components or number of factors being extracted in factor-augmented regression models.

Overall, I do not think the chapter has fully achieved the objective of answering what really affects commodity prices. While there are a few key factors, such as macroeconomic activities, commodity supply, and monetary policy, the chapter is unable to distinguish them.

Reference

Chen, Y., K. Rogoff, and B. Rossi. 2008. Can exchange rates forecast commodity prices? NBER Working Paper no. 13901. Cambridge, MA: National Bureau of Economic Research, March.

Comment Roberto S. Mariano

In dealing with commodity price movements, this chapter compares the forecasting performance of fundamentals-based methods with baseline autoregressive or random walk models. Though still preliminary, this chapter shows thoroughness and care in dealing with the motivation, the substance, and the technical details of the study.

The authors begin the chapter with the result of Chen, Rogoff, and Rossi (2008, hereafter CRR), that exchange rate fluctuations of relatively small commodity-exporting countries (Canada, Australia, New Zealand, Chile, and South Africa) with market-based floating exchange rates have "remarkably robust power in predicting future global commodity prices."

The forecast variable in the chapter is a broad index of different spot commodity prices (ten alternative indices and subindices for three different commodity classes). The three forecasting models analyzed in the chapter are:

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