Commodity Prices, Commodity Currencies, and Global Economic Developments

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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, 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 Chan, Rogoff, 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 whether we can use macro-economic variables to forecast commodity prices?

In this paper, 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 Chan, Rogoff, Rossi (2008, hereafter CRR), and factor-augmented models.

The strength of the paper lies on it asking a very important question, based on a large dataset 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 paper 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 marco-economic variables represent business activities that lag behind financial transactions, the weak evidence on using macroeconomic variables might not be surprising. Even though the paper attempt 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 paper 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 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 paper 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 model

Overall, I don't think the paper has fully achieved the objective of answering what really affects commodity prices. While there are few key factors, such as macro-economic activities, commodity supply and Monetary policy, the paper is unable to distinguish them.