The Relationship between Commodity Prices and Exchange Rates


Comment    Tokuo Iwaisako

Present value formulation of exchange rates is impeccable as a theory. However, its practical importance has always been questioned, because it seems to be nearly impossible to address the issue of simultaneity between the exchange rate and fundamentals in a persuasive manner. The recent paper by Chen, Rogoff, and Rossi (2008, hereafter CRR) tackles this issue using world commodity prices as an exogenous variable with which to cut through macroeconomics where endogeneity is normally considered to be a problem. Chen, Rogoff, and Rossi present surprisingly strong evidence that foreign exchange values of commodity exporting countries (“commodity currencies”) help to predict the prices of the commodities they export in spot/forward markets.

Two chapters in this volume, the chapter by Chan, Tse, and Williams, and the chapter by Groen and Pesanti, ask if the finding in CRR (2008) is really robust. In particular, Chan, Tse, and Williams argue that the predictability that CRR (2008) reports disappears if data on commodity futures are used. However, they also find that contemporaneous correlations between commodity prices and commodity currencies are generally very strong.

At first glance, the contrast between the empirical results in CRR (2008) and Chan, Tse, and Williams seems stark. However, once we realize the different natures of spot, forward, and futures markets of commodities, the difference between the two empirical results is not so surprising. While spot and forward commodity markets are dominated by transactions directly related to the transaction of real goods, commodity futures markets are essentially financial markets, dominated by investors/speculators. Hence, the arbitrage mechanism is expected to work more effectively in futures markets than in the other two types of commodity markets.

While I believe that the main findings by Chan, Tse, and Williams are persuasive and robust, we have to be careful in accepting their empirical results. First, there are some important differences between this chapter’s data and those of other studies. While this chapter uses daily data, CRR and Groen and Pesanti use lower-frequency data. Also, the authors use a sample period

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that is much shorter than the others, and utilizes only the subset of commodity exporting countries, because of the availability of futures market data. Second, the authors employ a simple linear forecasting framework with very limited forecasting variables and the notion of Granger causality. Naturally, the question arises about the validity of their empirical results if, for example, some nonlinear forecasting techniques are used or additional forecasting variables are introduced. I am not really expecting that these issues would significantly change their main findings. However, it is desirable if the authors could provide further robustness checks of their main findings.

I am convinced that their finding in this chapter and the previous results in CRR are not inconsistent. Together with the Groen and Pesanti chapter in this volume, these chapters provide us with a better and more accurate understanding of the relationship between commodity prices and commodity currencies. Yet it is still interesting to know how different the results might be for the spot, forward, and futures markets. Though the authors repeatedly emphasize uninformed trading as a source of predictability in spot and forward commodity returns found in CRR, they do not provide any concrete evidence about this point. I understand that it is beyond the scope of their current chapter, but the roles of uninformed trading and/or other institutional obstacles in generating observed predictability in spot/forward commodity markets is important information for a comprehensive understanding of the empirical results in the literature.

Finally, Chan, Tse, and Williams emphasize that their empirical results are consistent with the efficient market hypothesis. However, the absence of an arbitrage opportunity does not warrant overall efficiency of financial markets, as Professor Summers noted with his ketchup economics analogy many years ago (Summers 1985). This chapter does not really address the issue of whether large swings in commodity prices in the last ten years can be explained by market fundamentals alone, or if they actually contain speculative bubbles that have motivated the large number of recent empirical researches in macroeconomics and finance, including chapters in this volume. Also, the research in CRR (2008) on commodity currencies is motivated by the present value formulation of exchange rates. It would have been helpful if the authors had provided some discussion about the implications of their findings for broader issues.

References
