Ruminating about Speculating

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While the recent rise and ensuing fall in oil prices have not been as dramatic as the episode in 2008 in which West Texas Intermediate crude reached $147 per barrel, the public attention and concern are arguably just as high. Part of the reason is certainly that households are again facing gasoline prices close to $4 per gallon. But this time, for many, the increased cost is coming on top of months or years of financial stress from high unemployment and the modest pace of economic recovery.

As consumers, we never like it when the cost of something we purchase rises, especially something so essential to our daily lives and livelihoods. In economic terms, the short-term demand for gasoline by consumers is relatively inelastic, meaning that over short periods of time like weeks and months, we can't alter our driving patterns much and are left to absorb the extra cost from other parts of our budgets.

When oil and hence gasoline prices rise, an outcry for someone to do something about it usually follows. Most often the "something" is a call to limit the activity of oil speculators. And the "someone" is the Commodities Futures Trading Commission (CFTC), regulator of the exchange-traded oil futures widely used by speculators.

So is speculation the cause of fluctuating oil prices? And if so, wouldn't we, as consumers, be better off if the CFTC took steps to limit speculation? The answer to the first question is: Most assuredly, speculation does drive oil prices, but perhaps not in the way the conventional wisdom would have you believe. As for the second question, I hope to convince you the argument is more complicated than it might seem.

What is speculation?

The *Oxford English Dictionary* defines speculation as "the act of buying and selling goods, land, stocks and shares, etc., in order to profit from the rise or fall of the market value." Compared with investment, speculation is typically thought of as entailing a greater risk of loss and the potential for very large gains. Using this definition, it is clear that speculation occurs in the stock market, the market for collectible baseball cards, and even, prior to 2007, in the market for condominiums in Miami. The market for oil is no different, except that speculators do not have to buy and sell actual oil but can use financial contracts called futures to take their positions and attempt to earn a profit.

Futures contracts are agreements made today to buy and sell oil at a particular date in the future for a predetermined price. For example, the July 2011 West Texas Intermediate Crude futures contract traded at $100 on Friday, June 3, 2011. The buyer of this futures contract agrees to buy oil from the seller for $100 per barrel in July 2011, and the seller agrees to deliver the oil at that

time. No money changes hands when the agreement is made. If the price of oil is higher than $100 per barrel in July, the buyer will make a profit since he could turn around and sell this newly acquired oil for a higher price. Conversely, if the price is lower, the seller makes a profit by acquiring the oil more cheaply and selling it to the buyer for $100.

Most futures trading does not entail actual delivery of the oil as in this simple example. Instead, if the futures price is higher than $100 before July, the buyer can enter into an offsetting futures contract as a seller at this higher price and lock in profit without having to worry about dealing with the transfer of the oil.

These futures contracts provide an inexpensive way to speculate on the future price of oil. But speculators are not the only traders in this market. Any firm engaged in the purchase or production of oil as a part of its business can be deemed a commercial trader. Commercial traders use the futures markets to hedge their exposure to the risk of changing oil prices. For example, a plastics manufacturer might buy futures contracts to lock in the price the company will need to pay for the oil it will need in the future, thus lowering the firm's risk of loss if oil prices increase in the meantime. Speculators actually benefit all the commercial traders, by enlarging the pool of active traders and making hedging easier for commercial traders by taking the "other side of the trade" (in this case, selling the plastics manufacturer a futures contract).

Does speculation warp prices?

The CFTC estimates indicate that roughly 43 percent of oil futures contracts involve noncommercial traders (that is, speculators). So, speculators are indeed a meaningful part of the market, and their trading surely affects market prices. But the real question is, in what way? Implicit in the concern about speculation is the assumption that speculation drives the market price of oil away from some "fundamental" price determined by supply-and-demand conditions. But in fact, such a shift needn't be, and generally isn't, the case.

In deciding whether or not to speculate, a trader needs to make an assessment that the current price is too high or too low, an assessment that could be relatively uninformed but in general will be the result of an analysis of market supply and demand conditions, both those currently existing as well as those to come. This assessment requires taking into consideration economic data such as projected growth in emerging economies and the value of the dollar over time, as well as forecasts for the issuance of offshore drilling permits, instability in the Middle East, U.S. regulation on energy usage and vehicle emissions, and so on.

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As speculators trade, they help corral all this information, and their best analysis of it, into prices. Those whose analysis indicates the price is too low will buy futures contracts and push the price higher; those who believe the price is too high will sell and help keep the price down or push it lower. Thus the market price we see is the result of an enormous volume of trading based on analysis of economic fundamentals. The market price cannot be driven too far away from what the best analysis indicates; if it did, there would be many well-informed speculators who would be willing to trade to bring it back into line.

To be sure, there have been isolated cases in which a trader has limited success in manipulating a market by driving price away from fundamentals (such as the Hunt Brothers' activity in the silver market in 1979–80). But this kind of manipulation requires a massive buildup of inventories, which we have not seen in the oil market during the recent episodes of price spikes.

So to say that speculation drives prices does not imply that prices are unmoored from economic fundamentals. In fact, it is the very presence of speculation that allows the most information and the best analysis to influence the market price.

Imagining no speculators

It's a useful exercise to imagine for a minute what the world might be like without oil speculators. Here's one scenario: suppose that suddenly there was a significant threat of a disruption to the transportation of oil through the Suez Canal sometime during the next three months. In the extreme case, without speculators, the price of oil might not rise to incorporate this possibility. Now suppose that two months later the disruption occurred; the price of oil would rise precipitously. Oil that would have been conserved if the price had risen has instead already been consumed, and new supplies that might have been on the way would now be that much farther from coming to market.

Through their analysis and trading, speculators help to smooth the volatility of prices in response to changing economic conditions and forecasts of future conditions. The effect of any disruption, such as the one considered above, is blunted as consumers and businesses respond to the changing price of oil. Ultimately, these market prices allow the economy to allocate oil to its most efficient and effective use at all times.

For those unconvinced by these economic arguments, it may help to look at some data. Craig Pirrong, a professor at the University of Houston, has run an analysis of oil prices and the trading behavior of noncommercial traders (that is to say, speculators). If speculation by these traders were driving prices, we would expect to see prices rise when

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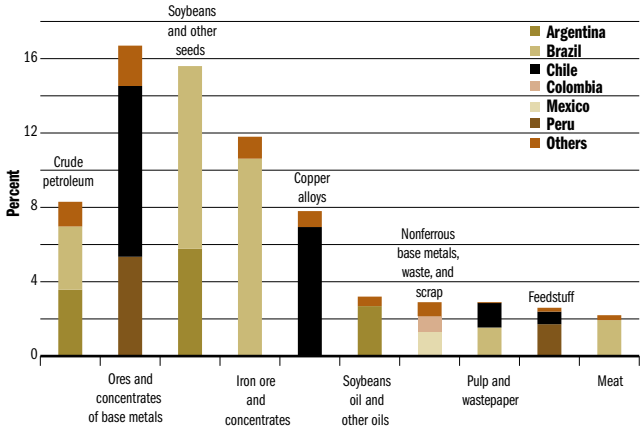
Chart 4

Latin American Commodity Exports to China



Source: *The Dragon in the Room: China and The Future of Latin American Industrialization* by Kevin P. Gallagher and Roberto Porzecanski (Stanford University Press, 2010)

Clearly, the relationship between China and Latin America is a complex one. Some countries—such as Brazil, Chile, Peru, and Argentina—have seen export earnings soar with trade contributing to high levels of GDP growth. Other countries—such as Mexico and the Central American countries—have not reaped such benefits from trade with China. In fact, countries competing with China in the manufactured exports arena face significant challenges. Brazil's government has made a significant effort to reduce trade imbalances, but it is clear that many of the asymmetries are deeply embedded in the existing trade relationships. The broad contours of the China-Latin America economic relationship are likely to persist in the years ahead. ▮

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they buy and prices fall when they sell. Indeed, Pirrong finds that we do see a bit of this correlation, but based on his analysis the impact of speculative trading raised oil prices by 2.56 percent during 2006–8, a tiny fraction of the actual 123 percent increase. Moreover he finds that speculators were at times selling while prices were rising, contributing to a smaller price increase overall. Finally, his analysis underlies the earlier comment on inventories: inventories of oil fell during the price rise in 2008 and expanded as the price fell, inconsistent with speculative hoarding.

On January 26, 2011, in accordance with the Dodd-Frank Act, the CFTC proposed new rules to limit excessive speculative trading positions in a variety of commodities including oil. Since then, the commission has received nearly 12,000 comments and has not yet issued a final rule. Complicating its task are myriad institutional details that I've not discussed here, including the trading activity that occurs outside of exchanges and the difficulty of distinguishing some speculative activity from hedging-related trading (most often involving financial firms that use futures to hedge other financial transactions).

As I've discussed here, there is currently no clear economic basis and no empirical smoking gun to indicate harmful effects of speculation in the oil market. Perhaps CTFC Commissioner Michael Dunn said it best in January: "To date, CFTC staff has been unable to find any reliable economic analysis to support either the contention that excessive speculation is affecting the markets we regulate or that position limits will prevent excessive speculation. The task then is for the CFTC staff to determine whether position limits are appropriate. With such a lack of concrete economic evidence, my fear is that, at best, position limits are a cure for a disease that does not exist or at worst, a placebo for one that does." ▮