WORKING PAPER SERIES

Factors Influencing Oil Prices: A Survey of the Current State of Knowledge in the Context of the 2007-08 Oil Price Volatility

Louis H. Ederington, University of Oklahoma
Chitru S. Fernano, University of Oklahoma
Thomas K. Lee, U.S. Energy Information Administration
Scott C. Linn, University of Oklahoma
Anthony D. May, Wichita State University

August 2011

Thus, the fairly persistent rise in the price of oil from 2003 to 2007 followed by the rapid rise in the price of oil in 2007 and 2008 to a high of around $140 a barrel in July 2008 and its sudden collapse to $40 fit the classic bubble pattern. Several studies have looked for other signs of bubble like behavior in oil prices over this period and have concluded that the oil price pattern shows evidence of a bubble. Based on their analyses of the oil price pattern, Phillips and Yu (2010) and Sornette et al. (2009) find evidence of a bubble in oil prices in 2008. Phillips and Yu (2010) date the oil price bubble from March 2008 to August 2008. Sornette et al. (2009) date the bubble from May 2008 through July 2008. There is also a strong view within some oil and financial industry groups that the entry of speculators (perhaps attracted by unrealistic high oil price forecasts) led to the creation of an oil price bubble (Gheit (2008), Guilford (2008), Lehman Brothers (2008), Masters and White (2009), and Steeland (2008)). However, using a variant of the Phillips-Yu procedure, Gilbert (2009) finds no evidence of a bubble. Caballero et al (2008) argue that when the housing bubble burst in early 2008 and financial institutions became suspect, investors switched to commodities in general and oil in particular leading to an oil bubble.

4.2 The market manipulation issue

Discussions in the press of the 2007-2008 oil price run-up and subsequent sharp decline sometimes raise the possibility of market manipulation. Reflecting the widespread belief among economists that such manipulation is highly unlikely and that there is no evidence to support it, there has been almost no research attention to this issue. An exception is Just and Just (2008) who build a theoretical model to show that a large monopolistic producer, i.e., OPEC, could profit from such a strategy. While their model is more involved, they essentially sketch out a classic corner in which the monopolist longs a large number of futures contracts on which it then demands delivery as the futures contracts expire. In order to make delivery, those who shorted the futures contracts are forced to buy from the monopolist in the physical market at prices he dictates. In developing their *de novo* model, Just and Just (2008) were apparently unaware of the history of and literature on corners. While their model is theoretical and Just and Just do not say this manipulation was actually responsible for the 2007-2008 price runup, it should be noted that their model predicts an increase in inventories, for which (as discussed below in reference to other papers) there is little evidence. Also the CFTC's large trader reporting system is designed to prevent corners.

4.3 Speculation and futures prices

While the bubble studies look for patterns in oil prices, other studies have looked for a causal link between speculation and oil prices. We find it useful to divide our discussion