

The BY PHILIP K. VERLEGER, JR. Oil-Dollar *Link*

*The Fed,
hedge funds, and
why oil could hit
\$150 a barrel.*

The relationship between the dollar's exchange rate and oil prices has been debated now for decades. Oil-exporting countries justified their first round of price hikes to \$10 per barrel in late 1973 by blaming global inflation and the falling dollar. Oil-exporting countries again blamed the weakening dollar for the second major round of price increases in 1978. Eight years later, the dollar's resurging value was cited as a cause of the 1986 price decline. More recently, oil prices and the dollar's exchange rate have seemed to move as one.

However, the mechanism that links the movement of oil prices and the dollar has never been satisfactorily explained. Indeed, a credible explanation may never be found. Certainly no one to date has advanced a convincing theory for their coincident movement.

Yet the relationship clearly exists, particularly since 2007, as can be seen from Figure 1. This graph presents the spot price of "Dated Brent," the world's crude oil benchmark, against the left vertical axis and the dollar's exchange rate against the right. To paraphrase Bob Dylan, "You do not need to be an economist to observe the linkage."

Why does one observe this linkage and what does it portend for the future? One way to answer the question would be to construct a detailed econometric causality study. If such efforts were made, I am sure one group of brilliant econometricians would find a causal linkage which showed that oil price movements were caused by changes in the exchange rate while a second equally brilliant group would find the reverse. I do not propose to conduct this kind of examination, although I was once a practicing econometrician. Instead, I suggest that recent coincident movements of oil prices and the dollar's exchange rate reflect declining confidence in the Federal Reserve's ability to contain inflation. Furthermore, I show that the rise in oil prices over the last six months—particularly the surge since January 22, 2008—shares many

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Movements of oil prices and the dollar's exchange rate reflect declining confidence in the Federal Reserve's ability to contain inflation.

characteristics with the rise in silver prices that occurred from early 1979 to January 1980. This leads to a very frightening conclusion: oil prices could be pushed to \$150 per barrel or higher before the end of 2008.

RECENT OIL PRICE CYCLES

Of late, crude oil prices have followed a relatively predictable cycle over the course of a year. The pattern is similar to the cycle observed in agricultural commodities. Crude prices rise during the spring and summer as gasoline prices exert an upward pull on prices for "light sweet crudes" such as Brent and WTI. These two crudes share two key characteristics. First, they are the benchmarks for trading in futures markets. Second, they have unique chemical characteristics that make them particularly attractive to refiners at times of peak gasoline and diesel fuel consumption. For this reason, prices can be expected to rise in the spring and summer and then decline with the approach of winter as motor fuel use drops. The price decline generally lasts until mid-January.

The cyclical pattern can be observed from Figure 2. This graph shows the daily spot prices for Brent crude ("Dated Brent") from January 2004 through February 29, 2008. Vertical lines mark the price peaks. Note that these occurred in August 2004, August 2005, and August 2007 as expected. The peak in 2004 occurred later, in October.

The price decline from August 2006 to January 2007 was particularly noteworthy. During this period, the emergence of Wall Street commodity investors provided a strong incentive to build stocks (see my piece, "How Wall Street Controls Oil," *TIE*, Winter 2007). The rise in stocks drove cash prices from a peak of almost \$80 per barrel in August 2006 to a low of \$50 per barrel in January 2007.

A fifth price cycle began less than a year ago. At the end of July 2007, prices began to fall as they had

in past years. The decline can be observed in Figure 2. However, in 2007 the period of price decline lasted less than a month rather than the usual five months. Oil prices began to move higher in late August, peaking at \$97 per barrel in early January 2008. (WTI touched \$100 at that time.)

The high prices, however, were unsupported in January and prices dropped by more than 10 percent. Prices would likely have fallen much further through February. However, events in financial markets on January 21, 2008, brought the decline to a halt. Crude again surged, finishing February above \$100. As the year progresses, it will likely rise much further.

CAUSES OF THE 2007/2008 SURGE TO \$100 PER BARREL

Two factors explain the rise in oil prices to \$100 per barrel over the last seven months. These are a physical squeeze on the available supply of light sweet crude and the ongoing financial crisis, which has forced the Federal Reserve to abandon, at least temporarily, its focus on price stability.

The squeeze on light sweet crude began in mid-August 2007, as did the first round of the current credit crisis. At that time, the U.S. Department of Energy announced its intention to resume filling the Strategic Petroleum Reserve and then began to remove light sweet crude from the market. DOE's action created consternation in crude markets and sent light sweet crude prices spiraling upward. The price increase would not have occurred had DOE decided to put only sour crude in the Strategic Petroleum Reserve.

Markets were vulnerable to DOE's actions because sweet crude supplies are limited and because sweet crudes are the critical ingredient for production of ultra-low-sulfur diesel fuel, the product refiners now must supply to consumers in the United States, Europe, and Japan.¹ Refiners can produce the low-sulfur diesel products more easily with sweet crudes. DOE's curious decision to remove even modest amounts of these crudes from the market contributed to a sizable price increase.²

The global financial crisis that began in August provides the second explanation for the oil price rise. The Federal Reserve has cut the prime lending rate repeatedly

Why Oil Reached \$100

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Kill the Speculators

In 2008, the Fed and the European Central Bank could instruct commercial lenders to use caution in lending to hedge funds and other institutions to the extent that borrowers used the funds to speculate in commodities.

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since August 19, 2007, in a valiant effort to improve the financial situation of key lending organizations. The two largest reductions occurred in January 2008. Almost every reader will agree that the actions were essential. Even so, they carried a very large cost: in the process of cutting rates, the Federal Reserve appears, in the view of many, to have given up its battle against inflation. This capitulation has fueled the oil price rise. Traders and investors noted the Fed's surrender and rushed to invest in oil. At the same time, those who own oil have concluded they are better off removing the commodity from markets. The upward crude price spiral is the result.

CONSEQUENCES OF CAPITULATION

The Fed's interest rate cuts have raised widespread concerns regarding the return of stagflation or worse. In late February, for example, CalPERS, the manager of the retirement fund for employees of the State of California, announced it was reducing the share of its portfolio allocated to fixed-income securities while boosting the amount allocated to commodities sixteen-fold to \$7 billion. Other pension fund managers acted similarly in late 2007, while still others have announced their intention to boost commodity investments in 2008.

Oil futures are one outlet for these funds. Under the allocation models used by CalPERS and other investors, half of the cash assigned to commodities will be "invested" in crude. The flow of cash must, absent a compensating increase in the supply of futures, lift oil prices. In 2008, this flow of funds has contributed to the oil price rise.

The price rise has been heightened by the absence of a supply boost to match the increased demand for futures from CalPERS and other investors. In fact, producers have lost their appetite for selling forward as prices have risen. A view made popular thirty years ago—"oil in the ground is worth more than money in the bank"—might well be making a comeback.

CONFUSION IN PHYSICAL MARKETS

As oil prices have increased, many in the oil industry have asserted that "fundamentals" are not to blame. Marathon Oil's CEO, Clarence Cazalot, for example, had this to say in a talk given at the end of February: "Higher prices are not simply the result of greater demand." He pointed out that Marathon was being offered plenty of oil and then concluded, "If we bought and sold crude oil purely on principles of supply and demand, there's no question in my mind the price would be lower than where it is today."³

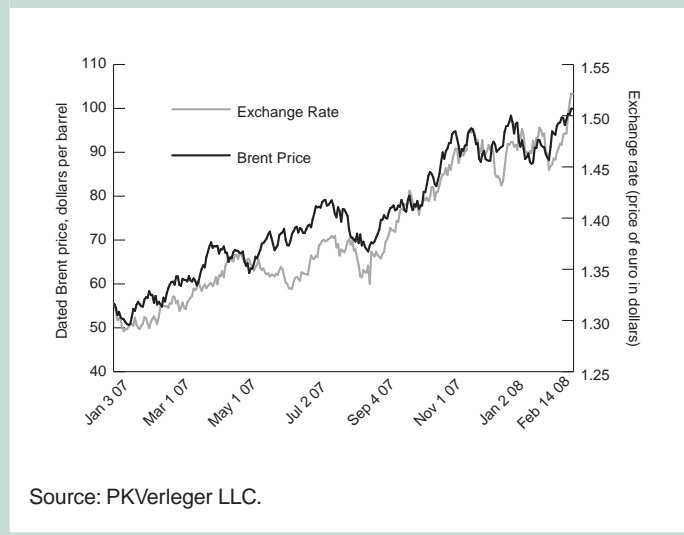
Cazalot went on to explain that part of the price rise could be attributed to futures traders and the apparent "instability in the world." Cazalot's remarks echoed those made twenty-eight years ago by Walter Hoving, who was then

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president of Tiffany & Co. At the time, Tiffany's and other major jewelry manufacturers were being buffeted by a ten-fold increase in silver prices even as more and more supply was being created. Hoving and Tiffany's were, of course, the victims of the aggressive silver buying of the Hunt brothers and other speculators.

In 2008 (as in 1980), physical commodity markets are being roiled by traders and investors looking for protection

Figure 1 Daily Price of Dated Brent vs. Dollar-Euro Daily Exchange Rate, 2007 to 2008



against inflation. Some of these traders are speculators or hedge fund managers. Other investors, though, are pension funds such as CalPERS. The buying done by these institutions tends to raise prices.

Price increases could become especially large if the entities that traditionally sell oil futures contracts back away from the market. In such circumstances, continued efforts by financial institutions to acquire claims on oil could cause very large increases in oil prices, just as the aggressive buying of silver futures contracts in late 1979 and early 1980 caused the tenfold increase in silver prices. As this article

went to press, the prospect of an oil price increase like the one experienced by silver twenty-eight years ago appeared very possible.

The risk of another large jump in oil prices comes from the bilateral nature of futures markets and the oil market's uncompetitive structure. In commodity futures markets, there must be a seller for every buyer. New buyers cannot acquire claims on oil if new sellers are not willing to sell or if those holding existing claims are not willing to relinquish them.

In the oil market today, producers and traders seem unwilling to initiate new short positions. The constraint can be observed in open interest. Figure 3 traces open interest in the three principal crude oil futures contracts from January 2000 through the end of February 2008. Open interest peaked in November 2007 at 2.8 million contracts and has declined since. At the beginning of March 2008, only 2.5 million contracts were open.⁴

The consequence of increasing demand combined with the diminishing supply of any commodity is well known, and oil is no exception. Prices rise. In this situation, the upward limit on oil futures prices occurs when buyers step away from the market.

Conditions in the physical market for many commodities would, however, break the upward price movement. In the case of silver, for example, the tenfold increase in prices brought forth a large supply increase from mines and attics. In fact, one of the real surprising discoveries in 1979 was the large potential supply of silver that came from ordinary individuals who saw a chance to cash in by selling heirlooms. So great was the supply increase that the cost of refining silver rose from seven cents per ounce to five dollars per ounce in just six months.

The increase in the supply of silver did not, however, break the upward movement in prices. Speculators, especially the Hunts, kept buying. The price increase was broken only by aggressive action on the part of the Fed and the COMEX.

Oil will not benefit from such a supply increase. Instead, oil-exporting countries seem content today to produce enough to meet global demands at current prices. Oil is sold FOB [or free on board, where the buyer takes responsibility for shipping] on contracts tied to the spot market. Thus, the receipts of oil exporters will rise as prices are bid higher. As Marathon's Cazalot explains, more oil is available. However, his company will not buy more at these prices. Furthermore, tightening credit conditions have no doubt forced some independent refiners to purchase less. If refiners buy less, OPEC members will

Figure 2 Oil Price Cycles, 2004 to 2008: Daily Dated Brent Price With Traditional Fall Peaks Noted



Source: PKVerleger LLC.

Figure 3 Open Interest in Three Primary Crude Futures Contracts



Sources: NYMEX, ICE.

respond by producing less. Consumers cannot count on help from the cartel.

THE LINK TO THE DOLLAR

With this background, it is fair to conclude that the link between the falling dollar and rising oil prices was created by the same force: the Federal Reserve’s failure to control inflation expectations. The Fed’s unilateral cuts in interest rates have caused investors to move away from the dollar and acquire claims on assets that offer protection against inflation. Thus it is not surprising to see oil prices rise as the dollar falls. What is surprising, however, is to find the dollar moving in lockstep with oil prices as can be observed in Figure 1.

The close linkage shown in Figure 1 is a recent phenomenon. Over the last ten years the movements in the dollar and the euro have tended to be in the same direction, but not as closely tied. The looser linkage can be observed in Figure 4. There, monthly averages of the price of dated Brent are compared with monthly averages for the dollar. One may observe the dollar and the price of oil have generally moved in the same direction but with significant deviations. More deviations should be expected in the future.

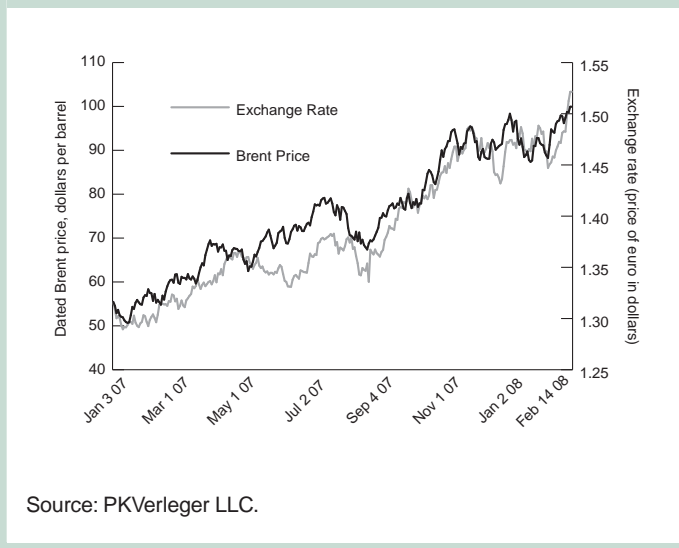
LOOKING FORWARD

It is not possible to look at the recent oil price rise and the dollar’s fall in value with equanimity. By the end of the spring, the United States may be forced to end its “benign neglect” of the dollar. In the past, the Federal Reserve and Treasury have been expected to act in concert to address such problems, with an increase in interest rates making a major contribution.

In 2008, the precarious state of many financial institutions may force the Fed to leave interest rates unchanged. This does not imply, though, the Fed or other central banks are powerless. Instead, they may need to look to alternative measures. Given the disconnect between financial and physical commodity markets noted above, one measure banks

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are being roiled by traders and investors
looking for protection against inflation.*

Figure 4 Average Monthly Price for Dated Brent vs. Average Monthly Euro-Dollar Exchange Rate, 1999 to 2008



could use would be moral suasion, which is what they did during the silver crisis. In 1980 the Federal Reserve instructed banks to apply special restraint to financing speculative holdings of commodities or precious metals. Banks got the message and cut off those speculating in silver. In 2008, the Fed and the European Central Bank could instruct commercial lenders to use caution in lending to hedge funds and other institutions to the extent that borrowers used the funds to speculate in commodities. Such a step would break the oil price rise and quite possibly the link between the dollar’s exchange rate and oil prices. ◆

NOTES

1. Environmental agencies across the globe have demanded that refiners remove almost all sulfur from diesel fuel. The benefits of this action are visible daily in most major cities where one no longer smells the diesel exhaust from buses and trucks. These benefits come at a significant cost, however.
2. I have argued in testimony to the U.S. Congress that the U.S. Department of Energy does not need to add sweet crude oil to the Strategic Petroleum Reserve because such crudes are not required in a crisis. Instead, DOE could add crudes with heavier sulfur content. In the future, refiners will probably be able to use such crudes to make ultra-low-sulfur diesel, especially if use were cut during the crisis. However, environmental authorities could also ease environmental regulations temporarily, thereby making the need for low-sulfur crude unnecessary.
3. Katherine Fraser, “Marathon’s Cazalot Says Oil Price Spikes Make No Sense,” *Platts Global Alert*, February 28, 2008.
4. The three major contracts are the NYMEX light sweet crude contract, the IPE Brent crude contract, and the ICE light sweet crude contract.