

QE and Oil Prices

BY PHILIP K. VERLEGER, JR.

*Why the United States
will be the new arbiter
of oil inventories.*

Most observers believe the impetus for the current oil price collapse began on November 27, 2014, Thanksgiving Day in the United States. On that date, Saudi Arabian officials left a meeting of OPEC members and informed the world that their country would not cut production as many had expected. Dated Brent, the accepted benchmark for world oil prices, traded at \$77.74 per barrel the day before the announcement. Within two months, it had declined to \$46.13, 40 percent below the pre-meeting price and 60 percent less than the July 2014 high of \$115.

This is a convenient but incorrect explanation. The seeds for the price collapse were sown years before, probably in October 2008, when then-Federal Reserve Chairman Ben Bernanke stated forcefully that the central bank would “do what it takes” to avoid a depression. The Fed did what it took via its quantitative easing program. Interest rates dropped to record lows and have remained low.

The low interest rate policy maintained by the Federal Reserve since 2008 has been controversial. Theorists such as Allan Meltzer and some Federal Reserve Bank presidents such as Richard Fisher have aggressively fought to raise interest rates and failed. Recently, Bernanke blogged that low interest rates were not “a short-term aberration but part of a long term trend.” He explained that long-term interest rates have declined with the fall in inflation. He added that the central bank has little control over real interest rates, noting that these are low because prospects for economic growth are very gloomy.

Bernanke, like his predecessor Alan Greenspan, overlooked one consequence of low rates: the search for yield by investors, particularly those who have retired. The quantitative easing program pursued by the Fed from 2009 to 2014 has prompted a flood of cash into the oil industry. The money in turn

Philip K. Verleger, Jr., is president of PKVerleger LLC.

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220 I Street, N.E., Suite 200

Washington, D.C. 20002

Phone: 202-861-0791

Fax: 202-861-0790

www.international-economy.com

editor@international-economy.com

sparked the expansion of master limited partnerships and the activity of independent drilling firms bent on boosting oil and gas output quickly with fracking technology.

These developments ultimately flattened the global supply curve for oil while dramatically expanding storage capacity. In effect, oil supply was boosted along with the tankage to store it. This all occurred as the global economy slipped into stagnation, a state that will likely continue for years. The growth in global oil use will fall well below expectations if it does.

In November 2014, the key low-cost Middle Eastern oil producers came to a belated realization: the QE-induced supply expansion combined with secular stagnation would likely require year after year of production cuts from them to preserve \$100 per barrel prices. These countries concluded that allowing higher-cost QE-funded companies to capture larger and larger shares of the market was not in their best interest. In response, they acted to change expectations regarding future prices.

The role of QE-induced investment in the oil sector in sustaining the crude price decline through the end of March 2015—and quite possibly into 2016 or 2017—has gone unnoticed. Yet this flow of money—probably more than \$1 trillion—will likely lay the foundation for energy industry prospects over the next decade. If the lessons from other such cycles apply, the outlook for energy is not good. Prices will probably be low compared to recent years for a very long time. By 2016 or 2017, \$50 per barrel may seem like a high price.

The consequences will be felt beyond the hydrocarbon sector. Low oil prices will accelerate the end of coal. The introduction of renewable energy, especially in transportation, may also be delayed. Low oil prices may even drive up natural gas prices in the United States as production of



The Enbridge crude oil tank farm in Cushing, Oklahoma, has a maximum storage capacity of 20,060,000 barrels.

associated gas drops, effectively slowing or ending the U.S. economic renaissance anticipated by this author in 2012 (see “The Amazing Tale of U.S. Energy Independence” in the Spring 2012 issue of *TIE*).

The key to the story rests in one of the most obscure areas of economics: storage. Many famous economists, including John Maynard Keynes and Holbrook Working, recognized that the ability to store a commodity fundamentally changes price determination. More recently, Jeffrey Williams and Brian Wright, as well as Joseph Stiglitz and David Newbery, have written about the part storage plays in determining prices. None of these authors, though, had or has contemplated the impact of quantitative easing.

Quantitative easing has sent one class of investors in desperate search of yield. In a March 30, 2015, blog, Ben Bernanke made this observation:

When I was chairman, more than one legislator accused me and my colleagues on the Fed’s policy-setting Federal Open Market Committee of “throwing seniors under the bus” (to use the words of one senator) by keeping interest rates low. The legislators were concerned about retirees living off their savings and able to obtain only very low rates of returns on those savings.

His comment applies to retirees keeping their funds in savings accounts. To be blunt, these individuals account for a relatively small share of the money held by the retired population and their “investment” alternatives are simple.

Another group of retiree investors seeks higher yields in a different manner. Such individuals have significant cash and some sophistication. In the United States, people older than sixty-five have a much higher share of net wealth than those under sixty-five. Given their substantial holdings, they

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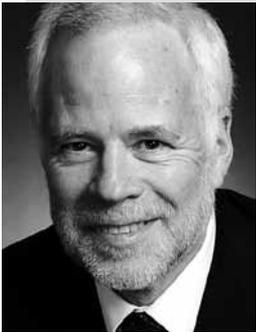
Eichengreen's Myths

Professor Barry Eichengreen of the University of California at Berkeley has written an excellent, readable comparison of the Great Depression and the Great Recession that may well predict the energy sector's impending difficulties (*Hall of Mirrors*—see *TIE* Bookshelf, p. 8). Eichengreen debunks a number of myths, especially regarding the positive effect of quantitative easing. Specifically, he asserts that the Federal Reserve holding interest rates down in the 1920s set the stage for the coming financial disaster. As he explains, the low rates caused investors to pursue alternative investments such as stocks and real estate. The Florida land boom and the 1929 stock crash followed.

Historians may conclude that the quantitative easing that followed the 2009 Great Recession has had precisely the same impact on the energy sector in the twenty-first century as the low interest rates in place before the Great Depression. Low interest rates resulting from quantitative easing have sent large amounts of capital flooding into oil and gas production as well as other activities. A bubble may have been created. If so, it most likely will soon pop.

—P. Verleger

Barry Eichengreen



are unlikely to be thrown under any bus. These investors have turned to putting money into equities and other types of assets. Four of their investment possibilities are new and all four will likely prolong and deepen the magnitude of the crude oil price collapse.

THE FOUR KEYS TO SUSTAINED OIL OUTPUT

Wealthy investors have at least four nontraditional choices: master limited partnerships, fracking company equity, commodity-linked funds, and private investment pools. All can and have affected the oil sector.

The first choice, master limited partnerships, are limited liability partnerships, meaning that shareholder liability is confined to the amount of money they invest. The virtue of MLPs is that under U.S. tax law, the partnership must pass all income on to the limited partners. These entities are the perfect substitute for savings accounts and other traditional fixed-income securities such as corporate bonds. MLPs offer investors with fixed incomes a likely stable return from crude, natural gas, and petroleum product pipelines, plus a potential gain from acquisitions or new investments in infrastructure such as tanks. Quantitative easing has caused investors to push money into MLPs seeking high yields such as the 6.1 percent per year return reported for the Alerian

MLP Index as of 2014. Oil companies such as Shell and Sunoco have created MLPs and transferred assets into them to raise cash without issuing additional debt. Investors, hungry for returns, have purchased them.

Direct investment in the firms that have been so successful in developing U.S. oil and gas resources is a second alternative. Investors have also turned to this option. Even after the price collapse, as the *Financial Times* reports, firms engaged in oil and gas exploration and development were able to raise more than \$10 billion during the first quarter of 2015. The funding has permitted independent producers to continue drilling and fracking, thereby maintaining or even increasing production despite the fall in prices.

Buying commodity-linked assets offers a third option to investors seeking high returns. Investors have poured billions into oil futures since January through diversified commodity funds tied to indices such as the Goldman Sachs Commodity Index and via exchange-traded funds such as the United States Oil Fund. The oil ETFs are equities that track the movement of oil futures. Investors buy the equities from firms such as USO, and those firms in turn buy oil

futures. These purchases provide another source of cash to producers. An estimated \$2 billion to \$3 billion has pushed into oil futures via this route. The money provides a needed lifeline to those drilling for oil and gas, sustaining activity for months or perhaps even a year. This investment activity is a direct consequence of quantitative easing.

The fourth option is investment in pools of private equity that acquire financially distressed companies exploring for oil in the United States. This opportunity appeals to many wealthy investors and large retirement funds. Private funds have allocated billions to purchase and then maintain the operations of oil and gas exploration companies experiencing difficulties. Such investments will keep oil and gas development programs alive even if the original backers go bankrupt.

Money funneled into these alternative investments will likely arrest any U.S. output decrease that might have occurred over the next few years due to lower crude oil prices. The new financial institutions created since 1985 will slow and maybe even prevent the price decline from having a significant impact on production. The clear message, then, is that quantitative easing has differentiated this price collapse from past episodes. The current price decrease is unlike earlier ones

because the high-cost source of incremental production is protected from what were once normal market forces.

The consequences of this changed circumstance could be profound. The source of the incremental production is the United States, where producers have boosted output dramatically. U.S. volumes in 2015 will likely be around one million barrels per day higher than projected five years ago.

The investment in storage facilities through MLPs will also affect price behavior. The construction of additional tanks has enlarged U.S. capacity to hold oil and delayed the inevitable collapse in spot prices. The stock build made possible in part by the availability of new storage has been spurred on because it is very profitable to purchase and hold oil under current market conditions. Investors can buy oil, store it, and sell contracts to deliver it at a higher price in six months or a year. In some cases, the risk-free return for such a transaction financed with borrowed money can exceed 10 percent after deducting loan and storage costs. There is essentially no risk associated with storing WTI crude in Cushing, Oklahoma, because the party holding the oil can deliver it under the futures contract and collect payment. These factors and others, such as the low cost of storage in the United States, are taking crude oil stocks here to record levels.

HIGH INVENTORIES AND THE THREAT TO PRICE STABILITY

The price stability of any commodity subject to variations in consumption from month to month or year to year requires production discipline or inventory management by one or more central parties. Often producer groups have formed organizations that worked together to achieve such stability. In a few cases, consumers have cooperated. International finan-

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cial organizations such as the World Bank have, on occasion, provided advice.

Most of these attempts to stabilize prices became ineffective after a few years. Agreements to stabilize the prices of aluminum, tin, rubber, and coffee have all been signed. Most succeeded for a time and then failed. Some were restarted. The international diamond cartel led by De Beers

has been the most successful, so much so that it has been held up as an example to every other group of producers trying to manage prices.

Quantitative easing may be creating a global arbiter of oil inventories that is functionally equivalent to De Beers, although it will hold a far smaller share of total stocks. This new arbiter will be the United States, which will have perhaps half the world's excess oil inventories. However, unlike De Beers, owners of stored oil will look for the first opportunity to sell it for profit. Oil will remain in tanks only as long as the market is in steep contango, affording holders the risk-free returns they can achieve by selling futures at a higher price than their cost. Very low interest rates are key to this strategy. Any increase in interest rates or decisions by banks to cut funding for oil storage will cause a decrease in stocks. The sale of that oil will put downward pressure on prices.

In this environment, maintaining price stability will require even stronger actions by producers than in the past. Today, however, producing countries, especially the key low-cost Middle Eastern nations, have walked away from market management rather than stepping forward. As a result, stocks will accumulate in the United States and become essentially a petroleum "Sword of Damocles" hanging over the market. As noted, privately owned stocks held in U.S. tanks will become the arbiter of world oil prices. Again, this threat has been funded by quantitative easing.

Some will see the oil industry as the victim of central bank activity and quantitative easing. For those who seek high prices to survive, such as Canadian heavy oil producers, this conclusion is correct. However, the oil industry victims of low prices are far from the first casualties of central bank activity.

Professor Barry Eichengreen of the University of California at Berkeley has written an excellent, readable comparison of the Great Depression and the Great Recession that may well predict the energy sector's impending difficulties. Eichengreen debunks a number of myths, especially regarding the positive effect of quantitative easing. Specifically, he asserts that the Federal Reserve holding interest rates down in the 1920s set the stage for the coming financial disaster. As he explains, the low rates caused investors to pursue alternative investments such as stocks and real estate. The Florida land boom and the 1929 stock crash followed.

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