
The Petroleum Economics Monthly

Philip K. Verleger, Jr.

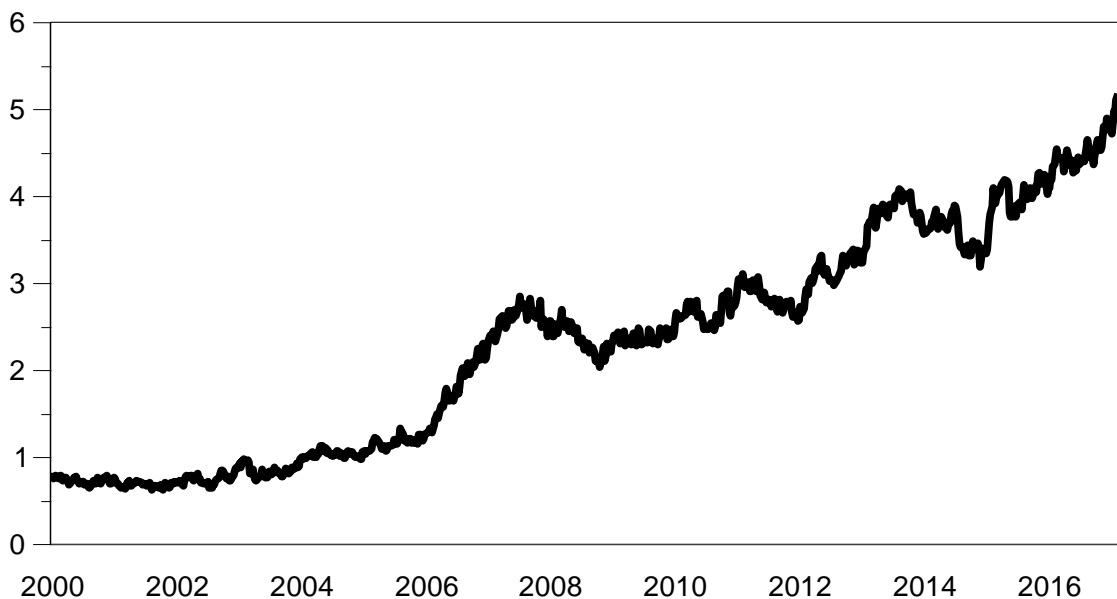
Volume XXXIV, No. 1

January 2017

Markets Take Over

Open Interest in Three Primary Crude Oil Futures Contracts, Weekly Data, 2000 to 2017

Million Contracts of 1,000 Barrels



Source: ICE; CME.



Publication Date: 2/22/2017

© 2017, PKVerleger LLC. All rights reserved. ISSN 1548-8098. Reproduction of *The Petroleum Economics Monthly* in any form (photostatically, electronically, or via facsimile), including via local- and wide-area networks, is strictly forbidden without direct licensed permission from PKVerleger LLC. Contact Dr. Verleger at 540 Fox Run Dr., Carbondale, CO 81623 or phil@pkverlegerllc.com.

(This page left blank intentionally.)

Markets Take Over

Philip K. Verleger, Jr.
PKVerleger LLC

Disclaimer: Although the statements of fact in this report have been obtained from and are based upon sources that PKVerleger LLC believes to be reliable, we do not guarantee their accuracy, and any such information may be incomplete or condensed. All opinions and estimates included in this report constitute the judgment of PKVerleger LLC as of the date of this report and are subject to change without notice.

(This page left blank intentionally.)

Table of Contents

Summary	1
Markets Take Over	3
Oil Futures and Commodity Markets Matter.....	6
Futures: Stabilizing Supply and Prices	7
Buyers in the New Market: End Users	13
Buyers in the New Market: Others	14
The Price Impact.....	15
Implications for the Physical Market.....	18
Implications for Oil Prices.....	19
Appendix I. Illustration of the PKVerleger LLC But-For Model.....	21
Glossary	25
Statistical Appendix.....	27

List of Figures

Figure 1. The Widening Crude Price Range: Dated Brent, January 2015 to February 2017	5
Figure 2. The Falling Cost of US Shale Oil Production, 2013 to 2016	6
Figure 3. Brent Crude Oil Price Movement vs. Movement of Merchant Short Position in Crude Futures and Options, 2012 to 2017	6
Figure 4. Brent Crude Oil Price Movement vs. Movement of Merchant Short Position in Crude Futures and Options, 2015 to 2017	7
Figure 5. Open Interest in Crude Oil and Petroleum Product Futures and Options Equivalents, 1991 to 2017.....	8
Figure 6. Open Interest in Crude Oil and Petroleum Product Futures Measured as Days of Supply for Global Consumption, 1991 to 2017	8
Figure 7. Global Crude Oil Stocks vs. Days of Consumption Coverage, 1990 to 2017.....	9
Figure 8. Merchant Short Open Interest in Three Primary Crude Futures Contracts vs. Global Commercial Crude Stocks, 2012 to 2014.....	10
Figure 9. Global Crude and Product Inventories vs. Open Interest in Three Primary Crude Contracts, 2010 to 2017	11
Figure 10. US Crude Oil Production vs. Merchant Short Position in WTI Futures, 2010 to 2016	11
Figure 11. US Crude Oil Production vs. Swap Dealer Short Position in WTI Futures, 2010 to 2016	12
Figure 12. Share of Long Open Interest in Crude Oil Associated with Merchants, 2012 to 2017	13
Figure 13. Producer Merchant Long Positions in Crude Oil Futures and Options Equivalents, 2012 to 2017.....	14
Figure 14. Commercial Crude Oil Inventories Held in the United States, 1986 to 2017	14
Figure 15. Long, Short, and Spreading Positions of Money Managers in Three Primary Crude Oil Contracts, 2012 to 2017	15

List of Figures (continued)

Figure 16. Dated Brent Price vs. Crude Price Predicted by “But-For” Model from EIG Global Crude Oil Inventory Data, 2008 to 2017	16
Figure 17. Dated Brent Price vs. Crude Price Predicted by “But-For” Model from Adjusted EIG Global Crude Oil Inventory Data, 2008 to 2017	17

Summary

The title of the January 2017 *Petroleum Economics Monthly*, “Markets Take Over,” captures our theme for this report. As an illustration, the cover figure tracks the rise in open interest in the three key futures contracts from 2000. More than six million contracts are now outstanding if one includes options-equivalent positions. Open interest covers more than eighty days of global consumption. Markets have facilitated the accumulation of more than one billion barrels of opportunistic stocks.

Most who follow oil ignore these facts. Indeed, analysts and writers at most publications see the futures market as a sideshow, as do a great many consultants and investment bankers. Admittedly, some sophisticated individuals likely understand the implications of futures markets for oil but have chosen not to discuss them. A few people at one or two major investment banks are likely trading on their knowledge. Yet their institutions publish traditional oil market analyses like nothing has changed, quite probably because they are profiting from their market savvy.

Oil’s new world can be summarized in a modified version of a phrase Bill Clinton made famous in 1972: “It’s the economy, stupid.” We say, “It is the market, stupid.” The futures market now dominates the world oil market. Over the last two years, more than one billion barrels in opportunistic inventories have been accumulated. The traders, refiners, and market participants acquiring them have hedged. Global stocks have increased by 1.098 billion barrels. The hedged positions of those owning stocks have risen 1.084 billion barrels. There is a 0.13 percent difference in the two numbers.

Is this an accident? Certainly not. The market is working. Passive investors and speculators have bought futures, expecting prices to increase. They were encouraged by statements by the International Energy Agency’s executive director, who warned of shortages in the absence of investment. Their purchases were also encouraged by OPEC ministers promoting a production cut. Today, speculators and others are long more than one billion barrels.

The speculative buying has prompted stock building and hedging. Our analysis shows that prices would have fallen below \$20 per barrel had they not done so. What’s more, by promoting hedging, the speculators have helped stabilize prices in the mid-50s.

Oil-exporting countries still hope that their output cuts will force sales from inventories. They may get their wish. Part of the excess stocks will be sold. Whether these transactions will boost or depress prices is an open question, though, because it is the volume of unhedged crude relative to consumption that now determines price. Prices will fall if unhedged stocks rise and increase if the unhedged inventories decrease.

Ironically, in this new environment, contango is the friend of those seeking higher prices, not the enemy. Contango promotes storage and leads to smaller unhedged inventories and higher prices. Backwardation, in contrast, leads to stock liquidations, larger unhedged inventories, and lower prices.

Again, few market observers and participants recognize that today “it’s the market....” Futures and swaps are carnival attractions that have little impact. The consequence of this ignorance will likely be chaos. Sadly, only time will turn this around.