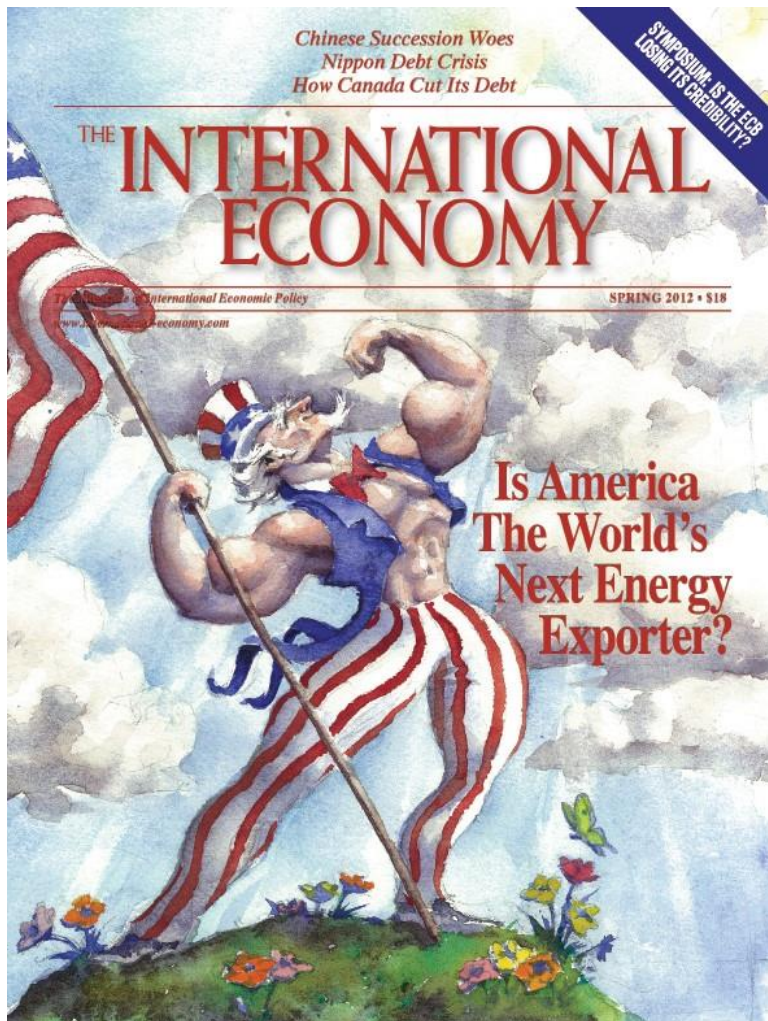


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# The United States: Center of the Global Oil Market



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## Table of Contents

Summary .....	1
The United States: Center of the Global Oil Market .....	5
Commodity Market Thinking: The Key to the US Hub .....	6
Defining a Commodity .....	7
Petroleum: A Bifurcated Good .....	9
Storage, Trading Speculation, and Commodity Investment .....	16
Toward a Better Market in Houston .....	18
Looking Forward .....	20
The Atlantic and Pacific Exceptions .....	22
The Cushing Paradox .....	24
Conclusion.....	24
Glossary.....	27
Statistical Appendix .....	29

## List of Figures

Figure 1. Open Interest in WTI Crude Futures Contracts Deliverable in Cushing, Oklahoma, 1986 to 2017 .....	15
Figure 2. Speculative Long and Short Positions in WTI Cushing Futures and Options Equivalents, 2010 to 2017 .....	15
Figure 3. Open Interest in Brent Crude Futures Cash-Settled through ICE, 1991 to 2017.....	16
Figure 4. Speculative Long and Short Positions in Brent Futures and Options Equivalents, 2012 to 2017 .....	16
Figure 5. Global Commercial Petroleum Stocks vs. Total Open Interest in Crude Futures on Three Major Exchanges, 2008 to 2017 .....	17
Figure 6. Monthly Crude Oil Production in the Permian Basin, 2007 to 2017 .....	18
Figure 7. US Finished and Intermediate Product Exports from PADD III, 1990 to 2016 ....	20
Figure 8. Daily Dated Brent/WTI Houston Price Spread, 2015 to 2017 .....	21
Figure 9. Houston RFG Retail Price vs. Price Predicted from Movement of NY Harbor Gasoline Futures Prices, 2000 to 2017 .....	23
Figure 10. Spread between ANS Spot Prices and Dated Brent/WTI Cushing Spot Prices, 2006 to 2017 .....	23

## List of Figures (continued)

Figure 11. US Net Imports of Crude Oil and Petroleum Products, February 1991 to  
November 2017 ..... 25

## List of Tables

Table 1. Criteria for Determining Whether a Good Can Be Called a Commodity ..... 9  
Table 2. Crude Oil Grades Blended into the Dated Brent Stream by Argus Media ..... 11  
Table 3. Oil Volumes Traded by Major Trading Firms..... 17  
Table 4. Comparison of Commodity Market Qualifications of Different Crude Markets..... 19  
Table 5. US PADD III Product Exports vs. Exports from Europe and Singapore ..... 21

## Summary

Fatih Birol, the International Energy Agency's executive director, speaking at a recent press conference to introduce the IEA's 2017 *World Energy Outlook*, told listeners that "the US will become the undisputed global oil and gas leader for decades to come."<sup>1</sup> The forecast issued by the agency shows US crude production plus global tight oil output rising from seventeen million barrels per day in 2016 to twenty-six million barrels per day in 2030.<sup>2</sup>

Our cover image—the front page of the Spring 2012 *The International Economy*, which focused on the US hydrocarbon industry's rise—provides an excellent illustration of what the IEA predicts and what we envisioned for the industry and the country six years ago. The *TIE* cover complemented a major article written by this author titled "The Amazing Tale of US Energy Independence."<sup>3</sup>

The success of US entrepreneurs we foresaw in 2012 has come to pass. Indeed, this *Petroleum Economics Monthly* might be subtitled "The Amazing Tale of the United States' Emergence as the Dominant Force in World Energy Markets."

The IEA prediction described above will excite and antagonize the world's barrel counters. In true barrel-counting fashion, Birol went on to say that "the growth in production is unprecedented, exceeding all historical records, even Saudi Arabia after production from the mega Ghawar field or Soviet gas production from the super Siberian fields."<sup>4</sup>

The forecasts are interesting. So is the IEA's assertion that six hundred seventy billion barrels must be developed to sustain output from old fields:

"There is a continued large-scale need for investment to develop a total of 670bn barrels of new resources to 2040, mostly to make up for declines at existing fields rather than to meet the increase in demand," the IEA said. "This puts steady upward pressure on costs and prices in the New Policies Scenario, as supply and services markets tighten and companies have to move on to more complex new projects."

"Even though their share in total energy supply investment falls, the Sustainable Development Scenario still requires almost \$14 trillion in capital expenditure on oil and gas supply; declining output from existing fields creates a sizeable gap that needs to be filled by new upstream projects," the IEA said.<sup>5</sup>

The *WEO* report is a seven-hundred-eighty-two-page amalgamation of words: kilowatt hours, MTOEs, barrels, Btu, and percentage changes. One might describe it as an engineer's delight or a barrel-counter's heaven. The authors, though, miss the most important development in energy today: the emergence of free markets as the dominant force.

As explained in this report, the United States is becoming the "core" of the global energy market with Houston and the US Gulf Coast as its hub. The emergence of Houston and the

<sup>1</sup> Anjali Ravel and Andrew Ward, "US crude output set to rocket, says IEA," *Financial Times*, November 14, 2017 [<https://goo.gl/MygTKY>].

<sup>2</sup> "Fact Box: Key forecasts from IEA's *World Energy Outlook*," *Platts Global Alert*, November 14, 2017.

<sup>3</sup> Philip K. Verleger, Jr., "The Amazing Tale of US Energy Independence," *The International Economy* 26, No. 2 (Spring 2012), pp. 8-12.

<sup>4</sup> Ravel and Ward.

<sup>5</sup> *Argus Media*, "IEA sees electricity, clean energy investment growth," November 11, 2017.

United States as principal player in world energy coincides with the arrival of a truly competitive hydrocarbon market. The Seven Sisters dominated the global petroleum industry from the mid-1940s to the mid-1970s.<sup>6</sup> Then control passed to oil-exporting countries such as Saudi Arabia and other OPEC members. Today, this power is shifting from exporting nations to a large, disorderly group of oil producers, independent refiners, and financial markets, most in the United States and more particularly on the US Gulf Coast. These firms are aggressively competitive, operate with very low costs, and employ sophisticated controls, which makes them far more efficient than the large companies and countries that once dominated the market. As a result, they will drive costs and prices down, demonstrating the up and downside of competitive markets to the world.

In this report, we explain how and why the United States, Houston especially, has displaced the older, more established markets. We also note that the consequence will be lower but more volatile hydrocarbon prices.

Houston's emergence as the center of the global oil and natural gas market is being or will be accompanied by the shift of price and supply control from organizations like OPEC to the chaotic world of daily selling and buying by producers, traders, processors, consumers, and, yes, speculators. Efforts to tame the chaos will be made, but they will fail because there are too many players and because technology is changing too rapidly.

The world will also witness the rise of the US as the lowest-cost oil and gas producer. Buyers of crude oil in every major consuming country will pay higher prices than US buyers because the United States, as the IEA barrel counters note, will be a large crude oil exporter. Buyers of products in the major consuming nations will also pay higher prices because the United States is already a large product exporter.

The greatest disparity, though, will occur with natural gas. Gas prices in the US will remain ridiculously low because the hundreds of firms drilling for and producing gas here operate with very low costs. The expense for liquefaction along with the residual effects of monopoly in Russia, Qatar, and other LNG-exporting nations, as well as for majors such as Shell and Chevron that developed LNG projects in the past, will keep prices higher for European and Asian customers.

The low-cost gas markets in the United States and particularly the US Gulf Coast will continue to stimulate economic activity here. The US coal industry will fall victim to this despite the best efforts of the Trump administration.

The emergence of the US and the Gulf Coast will be boosted by the nation's well-developed equity and commodity markets. These will promote new-project funding and facilitate trading and hedging.

The long-term trends envisioned by the IEA may occur. The authors understand, however, that all forecasts must be revised and that the 2017 report reflects updates to forecasts issued as early as 1985. In making their predictions, the IEA forecasters place a large emphasis on government policy. Here they err. The ultimate outcome depends on the avalanche of

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<sup>6</sup> The seven sisters were Esso (Standard Oil of New Jersey, now Exxon), Standard Oil of California (now Chevron), Texaco, Mobil, British Petroleum (now BP), Shell, and Gulf Oil.

hydrocarbons triggered by growing competitive markets facilitated by advancing technology.  
This avalanche will overwhelm anything in its path.