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A More Balanced Global Oil Market

For decades, Saudi Arabia and other OPEC countries largely controlled global oil markets. And if there was any whiff of turmoil in some of those countries, it could rock markets and prices. That is starting to change.

As the United States continues to tap plentiful shale oil deposits with new extraction technologies such as hydraulic fracturing, it means big shifts in global energy markets and an added cushion in a supply chain that pumps an average of 89 million barrels of oil for consumption each day.

For a current look at the global oil market and its impacts on the broader economy, *OUTLOOK* talked to Jim Ritterbusch, president of Ritterbusch and Associates, an independent consulting firm that provides research to the oil and financial industries.

OUTLOOK: Give us a high-level overview of where the global oil market stands today.

Jim Ritterbusch: It has changed a great deal in recent years with the big increase in U.S. oil production. Dramatic year-over-year gains in production have made the United States a major player. U.S. production increased 12.5 percent last year and it's projected to grow 8 percent this year. Those are big numbers that nobody really envisioned a mere three to four years ago.

That has made global markets less volatile and stabilized prices. It has actually displaced production in other parts of the globe. Saudi Arabia was always a key player in the global scene, but U.S. production has reduced the need for Middle East crude globally. That means America is less dependent on Middle East supplies, primarily oil from Saudi Arabia, and there is less volatility in the oil market in terms of supply and pricing now and in the future.

So when you see civil unrest in places – Egypt, Libya and Iraq – that would have once caused temporary oil supply disruptions and price hikes, the market now has more of a cushion. For example, we saw relatively limited volatility when Iranian sanctions cut that country's exports. We still had enough cushion to meet global demand.

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U.S. OIL & PETROLEUM CONSUMPTION

The United States consumed a total of 6.87 billion barrels (18.83 million barrels per day) of oil in 2011. That's about 22 percent of total world petroleum consumption. We use most of it – 71 percent – on transportation, including gasoline, diesel and jet fuel.

Petroleum products also include fuel oils for heating and electricity generation, asphalt and road oil, and the feedstocks used to make chemicals, plastics, and synthetic materials found in nearly everything we use today.

About this article



Jim Ritterbusch is president of Ritterbusch and Associates, an independent consulting firm that provides research to the oil and financial industries. With more than 25 years of experience, Mr. Ritterbusch is one of the nation's leading experts on oil markets, and his opinion is often sought by the media, including the *Wall Street Journal*, Associated Press, CBS News, National Public Radio and more.

OUTLOOK: *In the current global economy, how much oil is consumed on a daily basis in terms of barrels per day? How is that oil used?*

JR: About 89 million barrels of oil are consumed each day across the globe. The bulk of the oil is used for gasoline, diesel and jet fuel, regardless of the country.

OUTLOOK: *Let's look at the supply picture. What are the most important oil-producing regions of the world right now?*

JR: The Middle East remains the single largest supplier of oil to the global market, producing 27 to 28 million barrels per day. Within the region, Saudi Arabia is the largest producer and exporter, pumping out 9 to 10 million barrels per day. The rest of the Middle East – countries like United Arab Emirates, Iraq, Iran and Kuwait – accounts for another 17 million barrels per day of production.

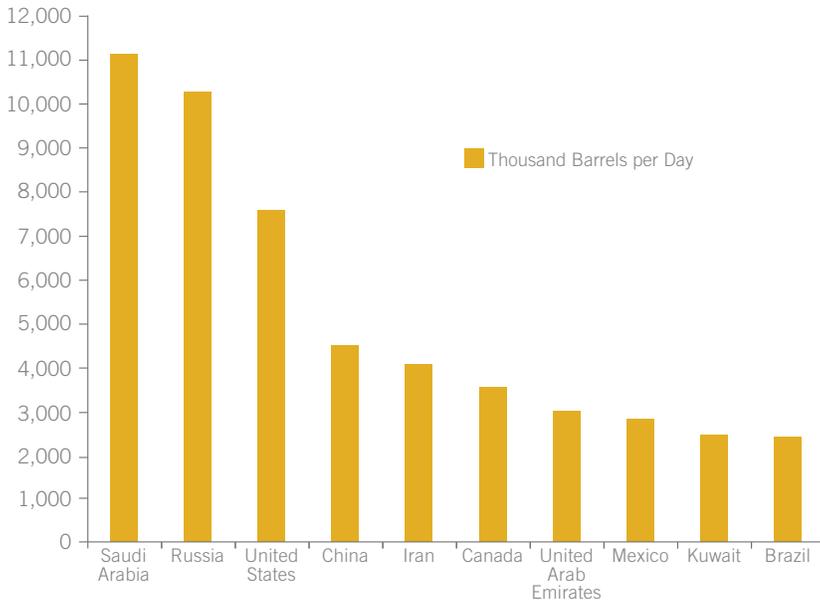
OUTLOOK: *What about outside the Middle East?*

JR: North America is a critically important supply source for oil. The United States is up to about 7.5 million barrels a day and gaining steam on everyone else. Its supply and its production activities are the most sophisticated in the world, and it's coming on strong. Canada and Mexico account for another 7 million barrels per day of production.

Russia is a big player, with production that approaches approximately 10 million barrels per day. In South America, Venezuela and Brazil are the dominant producers. Combined, they produce about 5 million barrels per day to the global market.

China is a large producer, but the country is also the second-largest consumer in the world. China produces 4.1 million barrels per day but it consumes about 10 million barrels per day, so it isn't a big exporter of oil.

WORLD'S TOP OIL PRODUCING COUNTRIES



Source: U.S. Energy Information Administration

OUTLOOK: *The Middle East has been in an almost constant state of turmoil for the past decade, with the Iraq war, international sanctions against Iran, and a series of political uprisings stemming from the so-called “Arab Spring.” Overall, what has been the impact on the region’s ability to supply oil to the rest of the world?*

JR: Right now, the turmoil seems to rotate from country to country, from Libya, Iraq, Iran and then most recently uprisings in Egypt. When those disruptions occur, there’s always concern the turmoil might spread across the region. Fortunately, we have excess production capacity from Saudi Arabian oil, which we call a swing producer. Yet we end up paying more for that oil – it’s called a “geopolitical risk premium” – and that ends up pushing up prices, sometimes by 6 percent to 7 percent, which is significant.

OUTLOOK: *Going forward, what are the greatest risks to Middle Eastern oil production?*

JR: The uncertain geopolitical climate keeps everyone on edge. You’re seeing a lot of countries attempt to move to democracy, which can lead to civil unrest. But your main producers – Saudi Arabia, Kuwait, and Iraq – have sizeable reserves, some of which can make up for any disruption of supply.

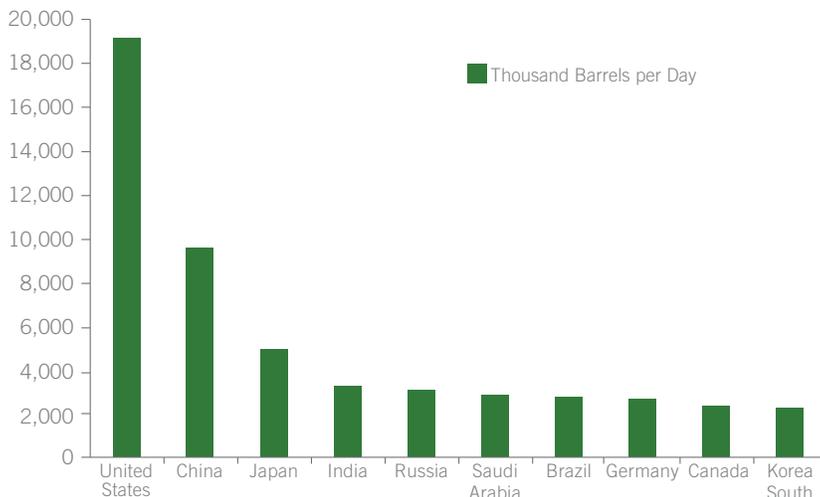
“I think the Keystone Pipeline will be approved by the Obama administration by the end of the year. That will help reign in price volatility, while keeping the globe well supplied with oil.

OUTLOOK: What are other key political developments that impact global oil supply?

JR: There are lots of examples. Venezuela, for instance, is a large supplier with production that can approach 3 million barrels per day – about 3.5 percent of global production. But Venezuela had a closed economy under former President Hugo Chavez, and that has precluded it from maximizing its huge resources and producing anywhere near capacity. That could possibly change gradually under a new regime, but for the time being, you won't see the country produce and export as efficiently as would be the case under a freer economic environment.

In Canada, there are huge tar sand fields that have enabled companies there to increase their supply into the U.S. The big problem, however, has been logistics. They can get it out of the ground, but a lot of that oil is simply trapped because they don't have pipelines to move it to the world market. The proposed Keystone pipeline would connect the tar sand fields to oil refining facilities along the U.S. Gulf Coast, but that project has been blocked so far by environmental concerns. I think the pipeline will be approved by the Obama administration by the end of the year. That will also be a factor that increases overall global supply and reigns in price volatility, while keeping the globe well supplied with oil.

WORLD'S TOP OIL CONSUMING COUNTRIES

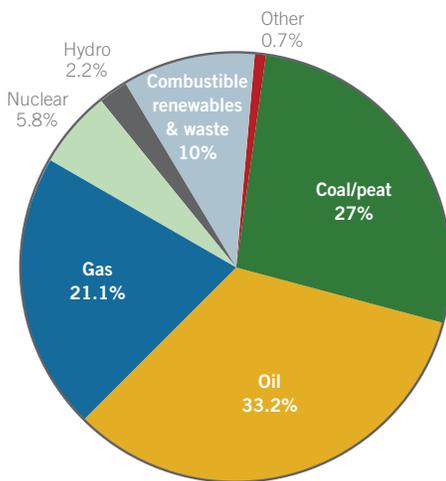


Source: U.S. Energy Information Administration

“Demand for oil will begin to level out and decrease to some extent, thanks to improved fuel efficiencies, electric cars and natural gas.

WORLD ENERGY PORTFOLIO

Oil is still the world's largest single energy source.



Source: IEA Key World Energy Statistics®
OECD/International Energy Agency 2010

OUTLOOK: *Despite the recent increases in U.S. production, it's still the case that a big percentage of global oil reserves are in politically unstable regions of the world. Do you believe growth in U.S. production can be a stabilizing force in the global market for the long term?*

JR: If you combine U.S. oil from places like Texas with Canadian oil through the Keystone Pipeline, North America can indeed be a stabilizing force. But the domestic oil production we've seen in the past five years is ultimately unsustainable. You're going to see much slower growth in supply in the coming years. Next year, we're expecting 9 percent growth and the next year it might be 8 percent. At the same time, we're seeing demand for oil level out and decrease to some extent, thanks to improved fuel efficiencies, electric cars and natural gas.

OUTLOOK: *Let's turn now to the demand side of the equation. What key trends in demand do you see from both advanced and emerging economies?*

JR: The fierce growth in demand for oil in emerging markets that pushed prices up dramatically four to five years ago isn't going to be seen again for some time. China is the elephant in the room, but it's growth is slowing and that is cutting its oil requirements. Overall, growth in oil usage from emerging economies will be mainly emanating from China and India.

Meanwhile, we have not been seeing significant growth in demand from Europe and, until recently, in Japan because of weakened economies. Japan's oil consumption is starting to rebound, after a couple of years of slowed demand. In the U.S., demand for oil is stable, but it's slowly being curtailed by better fuel efficiencies, electric cars and natural gas.

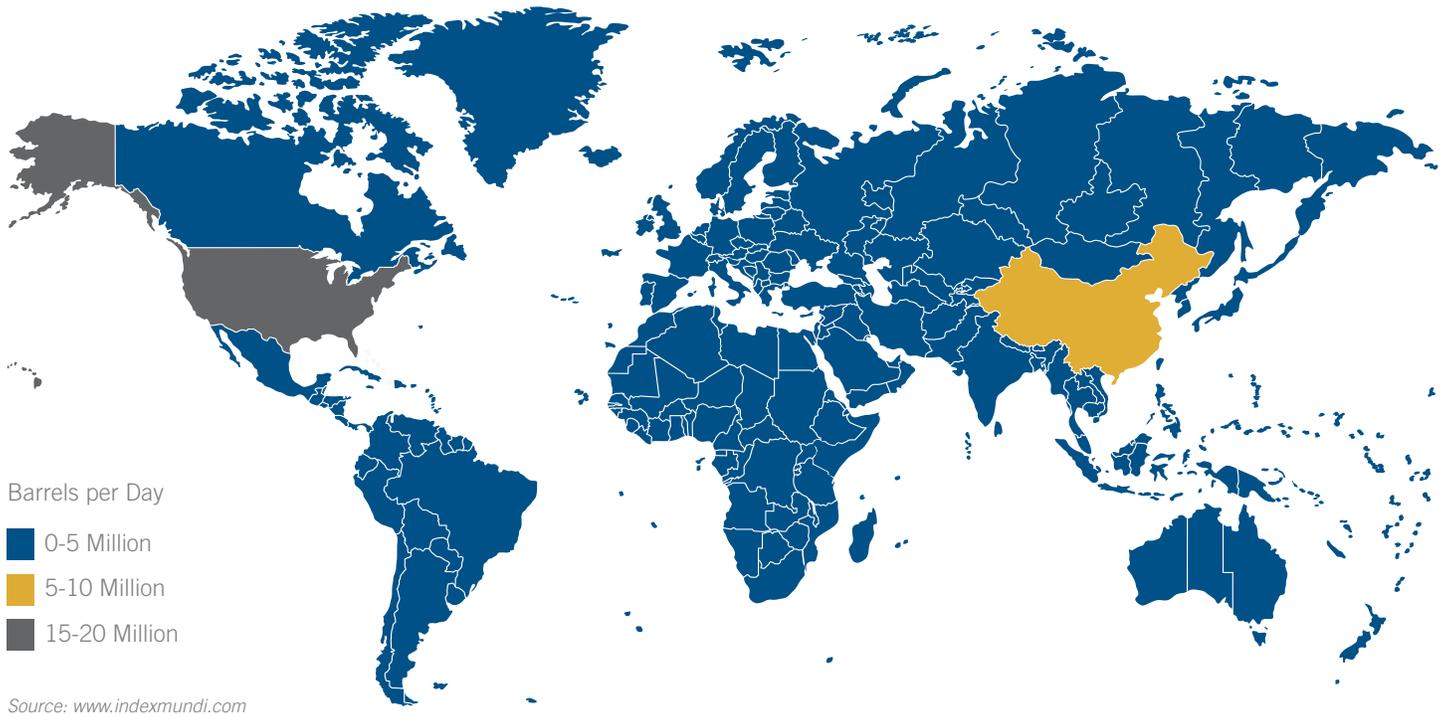
As a result, when you look at the overall balance of supply and demand, I see a pretty even match in the next year or two. That brings us to a balanced market with less volatility than we saw between 2000 and 2010.

OUTLOOK: *What are the implications of a balanced oil market for economic growth conditions here in the U.S.? Will that help our economy continue to recover?*

JR: When you've got price stabilization, it's good for the U.S. economy. Large corporations, such as airlines, can better plan and budget, and they can get more aggressive with capital expenditures when they know they won't get smacked in the face with a 30-percent price increase for jet fuel.

So a balanced oil market is much better for the economy, because even a huge drop in price only creates volatility. But overall, demand should stabilize with improved fuel efficiencies and more use of alternative fuels. Gradually, oil will gradually become a less important driver within the economy. ■

WORLD CRUDE OIL CONSUMPTION MAP



Interest Rates and Economic Indicators

The interest rate and economic data on this page were updated as of 6/30/13. They are intended to provide rate or cost indications only and are for notional amounts in excess of \$5 million except for forward fixed rates.

KEY ECONOMIC INDICATORS

Gross Domestic Product (GDP) measures the change in total output of the U.S. economy. The Consumer Price Index (CPI) is a measure of consumer inflation. The federal funds rate is the rate charged by banks to one another on overnight funds. The target federal funds rate is set by the Federal Reserve as one of the tools of monetary policy. The interest rate on the 10-year U.S. Treasury Note is considered a reflection of the market's view of longer-term macroeconomic performance; the 2-year projection provides a view of more near-term economic performance.

ECONOMIC AND INTEREST RATE PROJECTIONS

Source: Insight Economics, LLC and Blue Chip Economic Indicators

US Treasury Securities

2013	GDP	CPI	Funds	2-year	10-year
Q2	1.80%	0.50%	0.10%	0.33%	2.34%
Q3	2.30%	2.20%	0.12%	0.36%	2.23%
Q4	2.60%	2.00%	0.15%	0.45%	2.40%
2014	GDP	CPI	Funds	2-year	10-year
Q1	2.70%	2.00%	0.18%	0.55%	2.59%
Q2	2.80%	2.10%	0.23%	0.65%	2.70%

PROJECTIONS OF FUTURE INTEREST RATES

The table below reflects current market expectations about interest rates at given points in the future. Implied forward rates are the most commonly used measure of the outlook for interest rates. The forward rates listed are derived from the current interest rate curve using a mathematical formula to project future interest rate levels.

IMPLIED FORWARD SWAP RATES

Years Forward	3-month LIBOR	1-year Swap	3-year Swap	5-year Swap	7-year Swap	10-year Swap
Today	0.28%	0.36%	0.83%	1.59%	2.17%	2.73%
0.25	0.33%	0.42%	0.98%	1.74%	2.30%	2.83%
0.50	0.37%	0.48%	1.15%	1.90%	2.43%	2.94%
0.75	0.44%	0.56%	1.32%	2.06%	2.57%	3.04%
1.00	0.51%	0.67%	1.51%	2.22%	2.70%	3.14%
1.50	0.70%	1.00%	1.91%	2.55%	2.97%	3.35%
2.00	1.08%	1.46%	2.33%	2.88%	3.20%	3.55%
2.50	1.60%	1.94%	2.69%	3.15%	3.43%	3.71%
3.00	2.12%	2.42%	3.05%	3.42%	3.66%	3.88%
4.00	2.91%	3.15%	3.52%	3.80%	3.97%	4.10%
5.00	3.42%	3.62%	3.89%	4.02%	4.18%	4.25%

HEDGING THE COST OF FUTURE LOANS

A forward fixed rate is a fixed loan rate on a specified balance that can be drawn on or before a predetermined future date. The table below lists the additional cost incurred today to fix a loan at a future date.

FORWARD FIXED RATES

Cost of Forward Funds

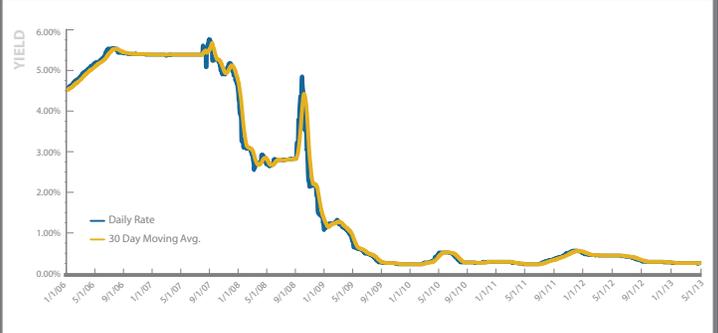
Forward Period (Days)	Average Life of Loan			
	2-yr	3-yr	5-yr	10-yr
30	6	8	8	6
90	14	21	21	15
180	24	38	39	27
365	60	84	78	52

Costs are stated in basis points per year.

SHORT-TERM INTEREST RATES

This graph depicts the recent history of the cost to fund floating rate loans. Three-month LIBOR is the most commonly used index for short-term financing.

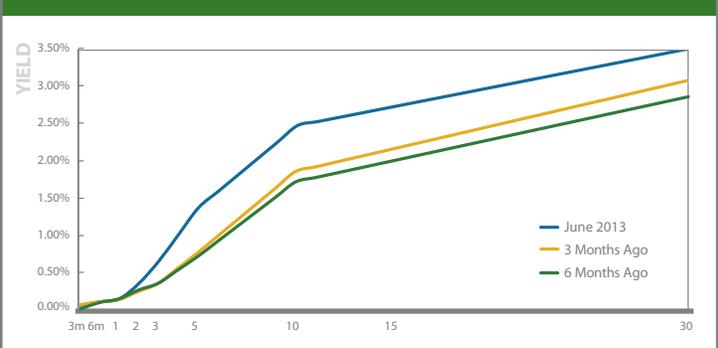
3-MONTH LIBOR



RELATION OF INTEREST RATE TO MATURITY

The yield curve is the relation between the cost of borrowing and the time to maturity of debt for a given borrower in a given currency. Typically, interest rates on long-term securities are higher than rates on short-term securities. Long-term securities generally require a risk premium for inflation uncertainty, for liquidity, and for potential default risk.

TREASURY YIELD CURVE





About CoBank

CoBank is a \$95 billion cooperative bank serving vital industries across rural America. The bank provides loans, leases, export financing and other financial services to agribusinesses and rural power, water and communications providers in all 50 states. The bank also provides wholesale loans and other financial services to affiliated Farm Credit associations serving farmers, ranchers and other rural borrowers in 23 states around the country.

CoBank is a member of the Farm Credit System, a nationwide network of banks and retail lending associations chartered to support the borrowing needs of U.S. agriculture and the nation's rural economy. Headquartered outside Denver, Colorado, CoBank serves customers from regional banking centers across the U.S. and also maintains an international representative office in Singapore.

For more information about CoBank, visit the bank's web site at www.cobank.com.

Commentary in Outlook is for general information only and does not necessarily reflect the opinion of CoBank. The information was obtained from sources that CoBank believes to be reliable but is not intended to provide specific advice.

CoBank Redeems \$200 Million Of Series C Preferred Stock

CoBank announced this month that it has redeemed all \$200 million of its Series C non-cumulative perpetual preferred stock.

The Series C preferred stock was first issued in June 2008. It paid an 11 percent dividend rate in its first five years, after which the dividend was scheduled to float at a rate indexed to three-month LIBOR.



David P. Burlage

David P. Burlage, CoBank's chief financial officer, said the redemption is part of CoBank's ongoing effort to enhance the efficiency and durability of its capital structure. Earlier in the year, the bank issued \$200 million of Series G non-cumulative perpetual preferred stock, which has a fixed dividend rate for life of 6.125 percent.

"We believe we have sufficient capital to meet the borrowing needs of our customers for the long term," Burlage said. "We're pleased to have completed the Series C redemption and continue to monitor the capital markets for additional opportunities."

CoBank now has outstanding four series of non-cumulative perpetual preferred stock totaling \$962 million. CoBank also has \$905 million in subordinated debt outstanding. ■