

Commodities – September 2013



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The shale energy revolution, geopolitics and the global economy

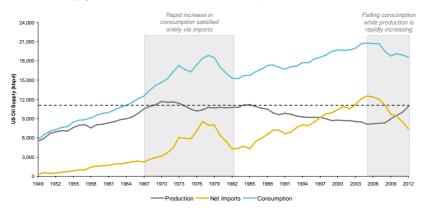
The US energy revolution is the most powerful driver of the current improvement in US economic growth, while America's economic resurgence is also fuelling the global economic recovery. Developments in the US energy sector also have far-reaching geopolitical implications in terms of how the US interacts with key regions such as the Middle East.

You have to go back to the early 1970s to find the last time that oil production increased in the US. However, at that time demand was also increasing at a much faster rate than production and thus the positive impact of rising oil output was more than offset by growing imports. By contrast, and as a result of changing demographics and improving efficiency, demand is currently declining and this trend is likely to continue.

The technological advances that enable oil and gas to be extracted from shale, and Washington's support for the exploration and production industry are the key factors behind the significant growth in energy output, a trend that will continue for several years. As a consequence, the US is now materially less dependent on oil imports from outside of North America - it imported 40% of its oil requirements in 2012, down from 60% in 2005. This decline in dependence on foreign oil has major implications for the global economy and geopolitics.

Figure 1: The global implications of the US energy revolution

Annual US Supply & Demand of Petroleum and Other Liquids¹



Source: US EIA.

1 Includes: Crude oil (including lease condensate) production, natural gas plant liquids production, processing gain (refinery and blender net production minus refinery and blender net inputs). Beginning in 1981, also includes fuel ethanol (minus denaturant) production. Beginning in 2001, also includes biodiesel production.

The key implications of America's growing energy independence are:

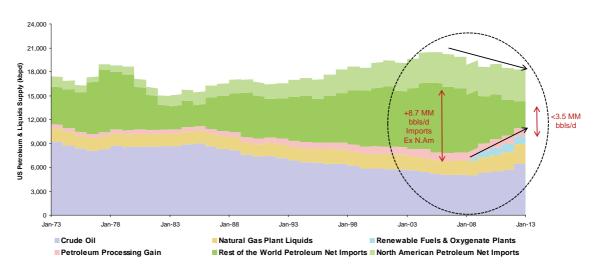
- The improving US trade and current accounts and inflows of investment into the US will cause a shortage of dollars outside of the US for years to come
- The greenback will regain its role as a safe haven asset as the economy attracts investment and this will be positive for US equities
- The US will enjoy relatively strong economic growth at the expense of energy dependent countries/regions as North America's energy advantage continues to increase
- US growth is not commodity intensive relative to emerging economies. The impact on commodities will be neutral in the short term, but bullish for oil and related products over the medium term as US growth drives global growth and hence demand for energy
- US foreign policy will veer away from intervention, leading to increased instability in regions such as the Middle East and North Africa, again with implications for global oil prices
- The US economy will become neutral or even positively leveraged to high oil prices and the inverse dollar/commodity price relationship will de-correlate.

Over the past decade, technological advances have allowed access to large volumes of shale gas that were previously uneconomical to produce. The production of natural gas from shale formations has rejuvenated the natural gas industry in the US. In addition, North America has the only meaningful growth in oil production worldwide and, as a result of these two developments oil imports into the US are falling. As a consequence, the US is singlehandedly relieving the pressure on OPEC and helping oil prices to recede from levels that have rationed demand for over two years. Consequently, one of the essential preconditions to improved global growth, namely adequate and preferably abundant supplies of reasonably-priced, oil-based energy, is now in place.

When we consider North American crude oil and biofuels production in total, and isolate imports from outside the US/Canada/Mexico bloc, the speed and magnitude of the US energy revolution becomes clear. North America will add a further 0.8 - 1.0 million barrels per day (mbd) of production by the end of 2013 (to put this in context, the US consumes around 18 mbd), and at current crude oil prices this trend will continue. Meanwhile, tougher fuel standards, driving the development of more efficient trucks and cars, will likely keep oil imports on a downward trend.

Figure 2: US Energy – North American production is the key

US Supply of Petroleum & Other Liquids (rolling 12-month average)



Source: US EIA

The inclusion of ethanol highlights the fact that as a result of the implementation of the Renewable Fuels Standard in 2005, the US effectively linked grains and oilseeds to crude oil. As the world's largest exporter of agricultural products, it has been able to command much higher prices for farm products, boosting another industry and the entire Midwest economy. This augments the economic advantage accruing from the shale energy revolution and reinforces North America as the engine of improving global economic growth.

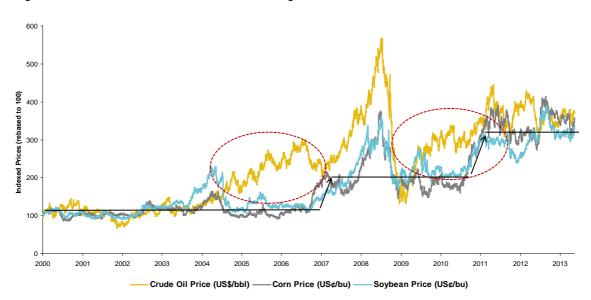


Figure 3: The Renewable Fuels Standard linked grains and oilseeds to crude oil

Source: Bloomberg, Threadneedle, as of 30 August 2013

The changing relationship between the dollar and commodity prices will be the most disruptive feature, because this relationship has prevailed for 40 years. Essentially, fewer dollars will be spent outside of North America to support the US's 18mbpd (and declining) level of oil consumption. Combined with the flow of investment money into the US, which is supporting increasing energy production, as well as related industries such as chemicals and engineering, and the general recovering economy, the dollar will likely enjoy a period of sustained strength. Given that this development will take place amid strengthening global growth, which will tighten commodity markets, we anticipate that this will result in a period of strong commodity prices together with a robust dollar.

In addition to the macroeconomic impact described above, it is reasonable to extrapolate that US foreign policy, especially as it applies to the Middle East, may be influenced by the rapidly declining dependence of America on OPEC production. A study by Germany's foreign intelligence agency, the BND, for example, concluded that Washington's discretionary power in foreign and security policy will increase substantially as a result of the country's new energy wealth, and that the potential threat from oil producers such as Iran will decline. The potential change in US foreign policy has significant implications for stability in the Middle East, short-term energy production, and the investment that would increase energy production from the region. Moreover, the development of energy resources in the US is taking place at a time when several Middle East countries are undergoing seismic political changes. This background only reinforces the US as the preferred target for investment and increases the likelihood that oil prices will remain elevated into the foreseeable future.

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