Confluence INVESTMENT MANAGEMENT

Weekly Geopolitical Report

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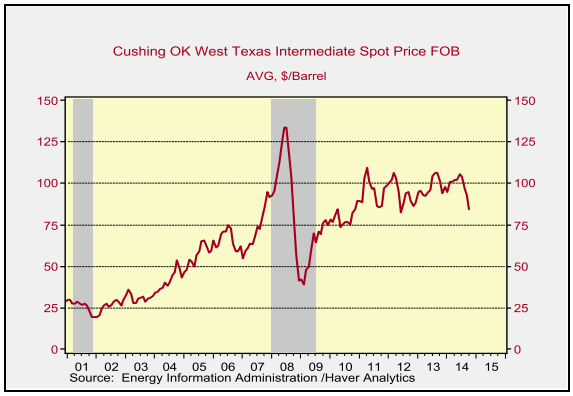
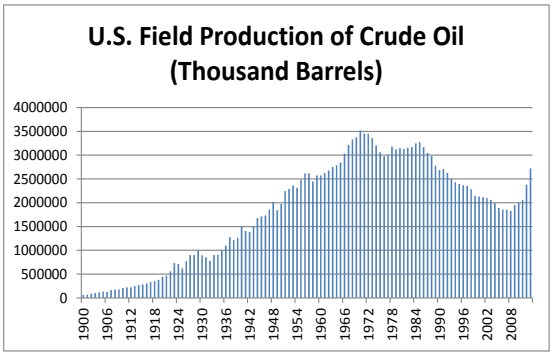
Manufacturing Renaissance?

Falling energy prices and historically high domestic hydrocarbon production have left many consumers giddy at the pump, while leaving many investors wondering what the market ramifications of cheap oil and natural gas could be. Short term effects have included improved consumer confidence and increased consumption as people have more available income. A longer term question that many analysts have been asking is whether the abundance of cheap domestic energy could breathe new life into the U.S. manufacturing sector.

Lower energy prices could benefit manufacturing as oil and natural gas are used as both energy sources and raw material inputs. The charts below illustrate the main arguments for a potential U.S. manufacturing boom. Domestic energy costs have declined due to increasing production and weak global demand. Additionally, due to the lack of sufficient pipelines, there's a crude glut in Cushing, pressuring domestic prices lower.

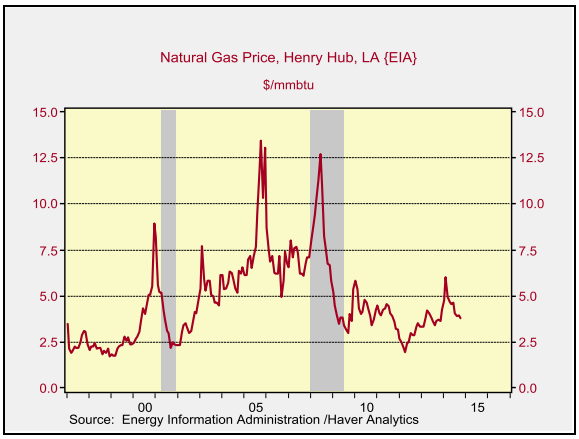


The chart in the previous column shows the WTI crude price, the domestic benchmark price.

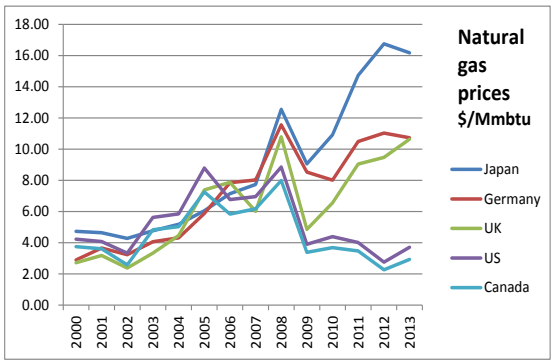


Source: U.S. Energy Information Administration

The chart above shows domestic crude production, which is currently at its highest level since 1989. New technologies, such as fracking, are leading to higher domestic production.



The chart above shows the Henry Hub natural gas price, the domestic benchmark price. Prices fell during the most recent recession and have remained low since. We have already seen low natural gas prices help the profit margins of industries that use natural gas as an input.



Source: BP Statistical Review 2014

The chart above illustrates the difference in natural gas prices paid by various countries. The lower prices experienced by the U.S. provide domestic manufacturers who use natural gas with a competitive advantage over manufacturers in other countries who pay higher natural gas prices. U.S. natural gas prices have fallen by about half over the past decade. They also currently stand at about one third of prices in Europe and China and a quarter of Japanese prices.

This week, we will take a look at the possibility of a manufacturing renaissance in the U.S. We will start by exploring the domestic and global implications of falling energy prices, paying attention to the countries and industries that could possibly benefit or suffer from energy price declines. We will briefly comment on the geopolitical effects of falling energy prices. We will then look at the factors that could boost or hurt the domestic manufacturing base, commenting on the importance of each. As always, we will conclude with market ramifications.

Global Background

Generally speaking, low global energy prices help countries that consume more energy than they produce, thus benefitting net energy importers. For example, China is the world's second largest net importer of oil. The country imports raw materials, including oil and coal, and exports higher value-added products. Thus, when energy prices fall, China's petroleum imports become cheaper, while the prices of its exports do not change. This, combined with a stronger dollar, would boost the Chinese trade surplus. Additionally, China subsidizes its domestic energy consumption, by keeping the retail price of energy fixed, but paying market prices to the producers. When energy prices fall, the portion of China's budget that funds subsidies declines, improving the overall government budget.

Europe imports most of its oil, thus the region should benefit from falling energy prices. Nonetheless, the region's persistently low inflation is causing worries of deflation, possibly leading to lower economic growth. Mario Draghi, the head of the ECB, claims that 80% of the inflation decline between 2011 and 2014 has been caused by low oil and food prices. Separately, Europe has been trying to diversify its energy sources away from Russian imports and more toward alternative sources of energy. The investments needed to initiate alternative energy projects will be harder to get approved in the current low energy price environment.

Another group of countries that benefits from low oil prices are the agriculture producing countries. Agriculture is much more energy-intensive than manufacturing, as energy is used in irrigation, planting and harvesting. Additionally, energy is the number one input in fertilizer production. Lower energy prices lead to a softer fertilizer price environment, improving farm profits.

The Effects on the U.S.

America is in an interesting position, simultaneously being the world's largest consumer, importer and producer of oil. Cheaper oil has historically boosted

economic growth rates, raising consumer sentiment and lowering manufacturing input costs.

Rising domestic production and weak end demand have pressured global energy prices lower. Additionally, cheaper imports of oil do not necessarily have the same impact as it has historically had, as imports represent a smaller fraction of consumption. The Energy Information Agency expects U.S. oil imports to drop to 20% of consumption next year. This is the lowest level since 1968.

Fracking technology for extracting oil is expensive, and some market observers forecast that domestic production would decline as it would not be economical to produce at lower prices. We do not believe that production cuts are imminent as many oil producers hedge their prices for six to 18 months, thus delaying the effects of falling prices. Additionally, new technological advancements could lead to more efficient and less costly domestic production.

Low energy prices are also likely to have an indirect effect on monetary policy. Core inflation is one of the Fed's policy targets and the rate has remained under the Fed's target of 2%. Although the Fed excludes the effects of energy and food price changes in their policy targets, lower crude prices could make the Fed indirectly feel more comfortable keeping interest rates low for a longer period of time.

Geopolitically, it has been argued that cheaper energy prices, especially oil prices, could allow for America to step back its peace-keeping commitments in the Middle East. However, America is still the world's largest oil importer, and is still dependent on foreign oil. Thus, it is unlikely that increased domestic production and cheaper prices would allow the U.S. to reduce its international military commitments. However, America is energy independent in coal and nearly energy independent in natural gas. Both the cheap and plentiful coal and natural gas could help manufacturing through cheap power generation.

Energy input costs for domestic manufacturing would improve margin expansion, but strength from weaker oil prices would be counterbalanced by weaker global demand and the higher dollar. The stronger dollar makes American exports more expensive for international consumers.

U.S. Manufacturing

The cheap crude and natural gas prices can provide a competitive advantage for U.S. manufacturing as crude and natural gas are used as an energy source and raw material to manufacture chemicals, primary and refined metals, plastics, pharmaceuticals and other products.

Some analysts point to the fact that the U.S. lost tens of thousands of manufacturing jobs as factories moved overseas in the rising energy price environment. However, the rising energy price effects were outweighed by the effects of globalization and price competition from abroad. Manufacturing primarily moved overseas in search of cheaper labor costs.

We have seen an improvement in domestic manufacturing over recent years, which have coincided with falling energy prices. But it's important to keep in mind that the domestic economy has also been recovering from the recession in this same time period.

For several reasons, we believe cheaper domestic energy prices are likely to have a muted effect on domestic manufacturing.

Foremost, energy prices represent a marginal cost for a majority of domestic manufacturers. According to a 2009 study, energy costs exceed 5% of the value of the final product for only 10% of domestic manufacturers. The energy intensive industries are chemical products, primary metals, fabricated metal products and machinery production. These industries are subjected to stiff environmental regulations and may face added environmental costs with a potential expansion. Additionally, these energy intensive industries represent a small proportion of the entire manufacturing sector, thus these industries would need to grow tremendously to affect the overall sector. The underlying unfavorable economics of producing aluminum and cement, for example, are not likely to be significantly affected by lower energy costs.

Chemicals production stands to gain the most, with some chemical producers claiming that domestic manufacturing adds value to natural gas inputs by the factor of eight. Most of these companies are petrochemicals, which are inputs into many plastics, resins, fibers, solvents etc. Fertilizer producers have already seen their margins widen as their input costs, mainly natural gas prices, have fallen. However, keep in mind that petrochemical manufacturing in the U.S. still accounts for a small portion of total manufacturing and again, the industry would have to grow substantially to have an effect on the overall manufacturing sector.

The manufacturing sectors that could gain from lower energy input costs are not likely to produce substantial jobs growth, as some analysts forecast. The manufacturers that would move to the U.S. to take advantage of cheap energy input costs are likely to automate most of its operations. Domestic labor costs are expensive, so the factories are likely to hire a few highly skilled workers to maintain the mechanized manufacturing process, but they are not likely to create a lot of traditional manufacturing jobs. Additionally, the current low interest rate environment supports the cheap financing of equipment.

So, it appears that the prospect of job creation as a result of low energy input costs remains muted. However, the industries that supply the domestic energy sector have already seen an improvement in demand. Steel, metals and chemicals production that are needed to build the equipment for energy exploration and production have all grown.

A factor that could increase energy prices is the possible lifting of the current export ban on unrefined crude and natural gas, although the manufacturing lobby is against easing oil export restrictions, as this would increase their input costs. The argument goes that we could use the cheap domestic energy in producing higher value added products and export these products, keeping more jobs and manufacturing in the U.S. At the same time, some analysts have suggested that if we allowed oil exports, domestic energy production would improve in response to rising prices, and more jobs would be created in the energy sector itself and sectors that supply the energy sector.

Outside of the cheap energy prices, a couple of other trends are likely to boost domestic manufacturing. Rising labor costs in emerging markets, such as China, would likely benefit manufacturing in the U.S. as input cost differentials would narrow.

As the U.S. is weighing its role as the global military superpower and possibly withdrawing from safeguarding global sea lanes, geopolitical tensions are likely to emerge, making the supply chain more

uncertain. Bringing manufacturing home, or at least to North America, would protect companies against geopolitical risks. Mexico and Canada could benefit from this trend.

Ramifications

Cheap and abundant domestic energy could boost manufacturing in certain sectors, but would not necessarily benefit manufacturers that use energy as an input. The energy sector itself could grow, supporting manufacturing in industries that supply the energy sector. However, we are not likely to see major job creation in this process as manufacturers are likely to take advantage of cheap financing costs to automate their production processes. While U.S. consumers will continue to benefit from lower energy costs, U.S. manufacturing has yet to gain broad-based benefits.

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