Altman Investment Management

Industry Research Insights : Energy

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IMPLICATIONS OF GEOPOLITICAL TENSIONS

The surge in oil prices has taken over the front pages of the press as well as the markets. Given the pace at which events are unfolding, it would be presumptuous to make bold calls on what happens next. Nonetheless, a closer look at the pro-democracy demonstrations in North Africa and the Middle East is reassuring and a display of tremendous courage by people who have endured a lifetime of persecution. However, we regretfully recognize the human tragedy affiliated with these events.

In the following commentary, we offer some preliminary thoughts on the implications of higher energy prices on financial markets: The latest media reports suggest that 60% of Libya's oil production has been shut down, but this amounts to just 1¼% of total world supply. What's more, despite the bloodcurdling rhetoric, the Qaddafi regime appears to be crumbling and whoever takes over will surely focus on restoring stability in the region as soon as possible.

Some form of military coup against Qaddafi seems inevitable. The proliferation of disorderly militias means that the transition is unlikely to be as quick as that in Egypt, where the army is relatively united and popular. It may also be some time before those foreign oil companies that have been able to evacuate key staff feel confident enough to send them back. But the situation could change relatively quickly.

In the meantime, the shortfall on global oil markets can be offset from two sources. The first is increased output from other countries, notably Saudi Arabia whose spare capacity is at least double Libya's entire production. Admittedly, Libyan oil is of relatively high quality and the additional refining costs mean that the alternatives are more expensive, but they are readily available.

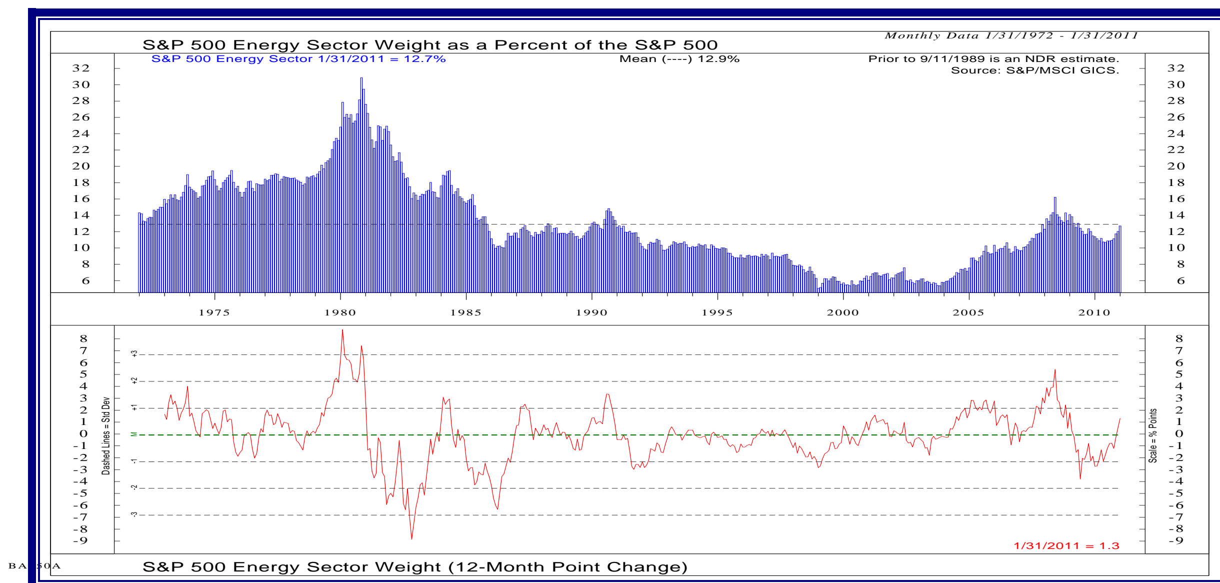
The second source is existing stocks. Italy, for example, is the largest importer of Libya's oil and reportedly has 90 days of reserves. Russia has already offered to release more stocks if needed, and Italy could step up imports of high quality crude from Azerbaijan and Iran. (Italy also imports almost all of Libya's natural gas, but has said it has ample stocks and the option of boosting supply from Algeria, Norway and Russia.)

On the assumption then that the chaos in Libya is short-lived, the recent spike in oil prices is only likely to be sustained – or extended – if disruption spreads to other major producers. Algeria is often assumed to be next in line. However, while there has been some civil unrest in Algeria, the street protests appear to be fizzling out.

Crucially, the Algerian government has attempted to manage the crisis, easing tensions by lifting its 19-year state of emergency and offering some limited political reform. Indeed the pro-democracy umbrella group set up in January now appears to be breaking apart. There is still an intense struggle over the succession to the current President, but the army, like that in Egypt and unlike that in Libya, is strong. Algeria's own recent experience of Islamist-inspired civil war in the 1990s also makes people there even more wary of a descent into the chaos now seen in neighboring Libya.

As for Saudi Arabia, the chances of major unrest and disruption to oil production still seem remote. However, the risk of contagion has risen in the region, with the disruptions in Libya. Most of Saudi Arabia's population is conservative and appears to favor political and economic stability rather than more reform. The major programs such as spending on housing, education and social welfare announced on Wednesday should buy the government some more breathing room.

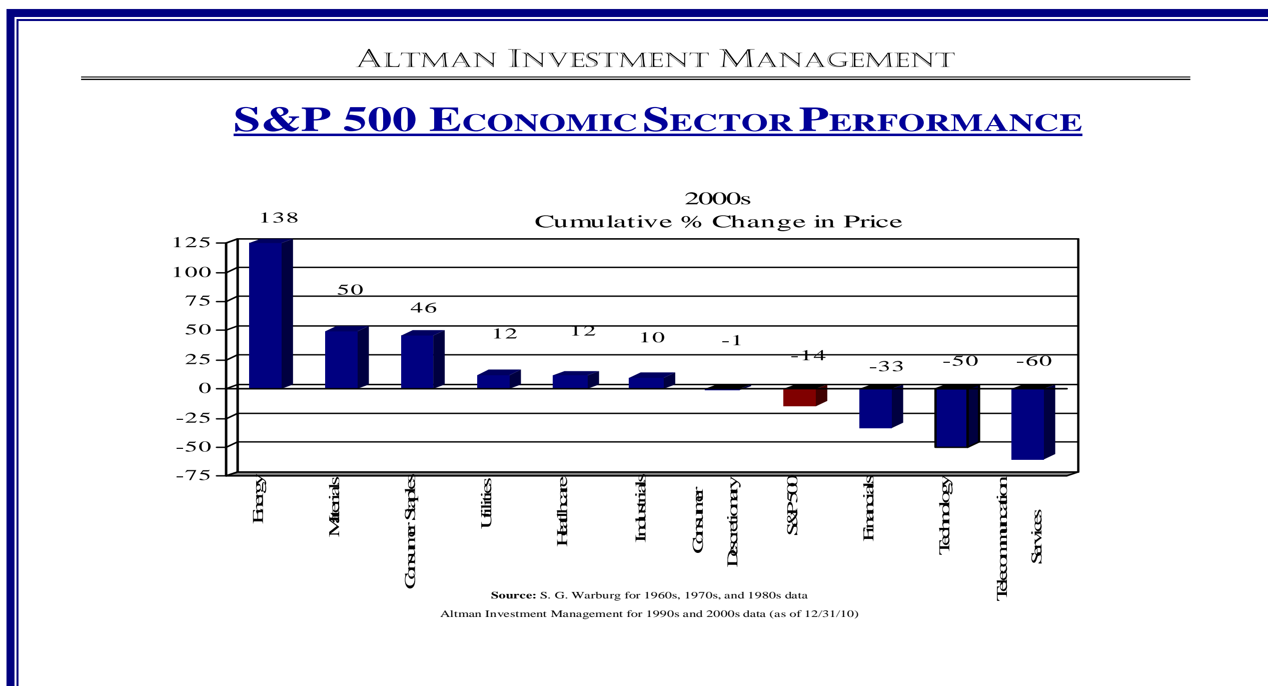
EXHIBIT I



Source: Ned Davis Research

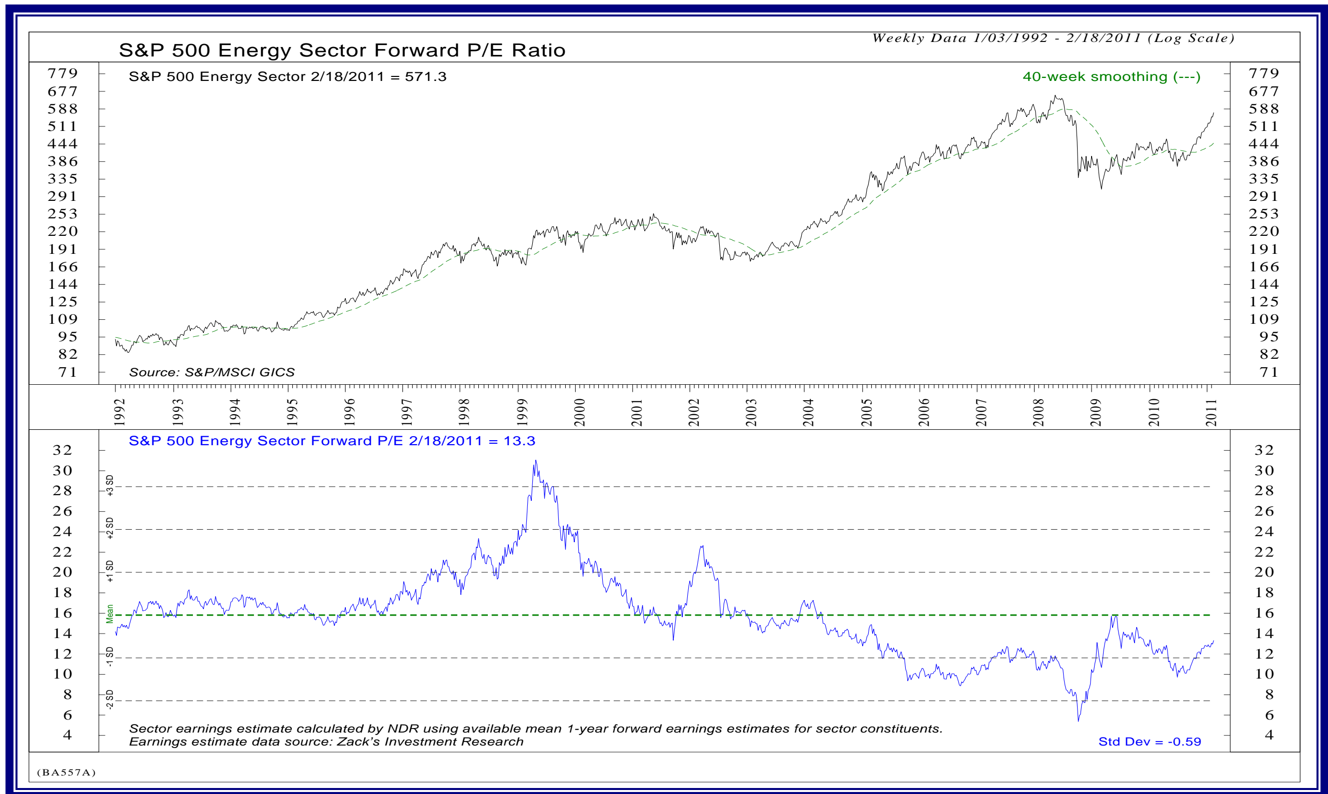
Although the energy sector in the Standard and Poor's 500 Index doesn't appear overvalued relative to the capital weight historically (14%) (Exhibit I), overall we think oil is overshooting. We continue to expect the price of a barrel of Brent to drop back in the coming weeks and months, ending the year below $100. It's worth mentioning that the oil stocks have outperformed every major sector of the Standard and Poor's 500 during the decade +138% versus a decline of 14% by the Standard and Poor's over a comparable time period. (Exhibit II). Implementing a portfolio strategy of maintaining an overweight position in oil longer term could be subject to the natural market forces of reverting back to the mean. Analyzing the group from a forward price earnings ratio perspective, the oil sector in aggregate doesn't look overextended with the ratios currently below 16. (Exhibit III)

EXHIBIT II



Source: Altman Investment Management and Bloomberg

EXHIBIT III



Source: Ned Davis Research

U.S. GDP RAMIFICATIONS

How much of a drag on GDP growth should we expect from the recent surge in oil prices? If one assumes that oil trends higher over the year, one should expect this phenomenon could weigh on growth through lower personal consumption, business fixed investment and inventory accumulation—although a narrowing real trade deficit might provide some offset. Any estimate is subject to considerable uncertainty but does suggest that a persistent 10% increase in crude oil prices could reduce the growth rate of real GDP by an average of 0.2 percentage points according to consensus estimates during the subsequent two years. That lower GDP growth by 0.2% and 0.4% after one and two years, respectively.

Our economic forecast at year end 2011 of 3.0-3.5% GDP growth had already assumed an increase in crude oil prices, trending up toward $90-95 per barrel by the end of 2011. However if oil prices should exceed $110 by the end of 2012, our analysis for the US GDP growth outlook would necessarily need to be modified to reflect higher oil price increases that go moderately beyond what we already assume.

Oil prices have risen sharply in recent months, topping $100 per barrel today. While some of the recent pressure is due to the ongoing political unrest in the Middle East, we do expect crude oil prices to rise somewhat until the end of 2012.

A simple calculation of what the effects might be on personal consumption expenditure: Consumption expenditure on energy goods and services was about 5% of disposable income in 2010, according to Goldman Sachs Research. Based on the historical relationship between crude oil and retail gasoline prices, a 10% crude price increase should raise retail gasoline prices by around 6%. Such an increase would therefore imply a 0.3% hit to household real income, with some of that coming out of savings and some out of spending. If we assume that half of the impact on both saving and spending—a reasonable starting point—a 10% crude oil price increase implies a 15 basis point hit to real consumer spending over one year. Or, in GDP terms, around one tenth of a percentage point.

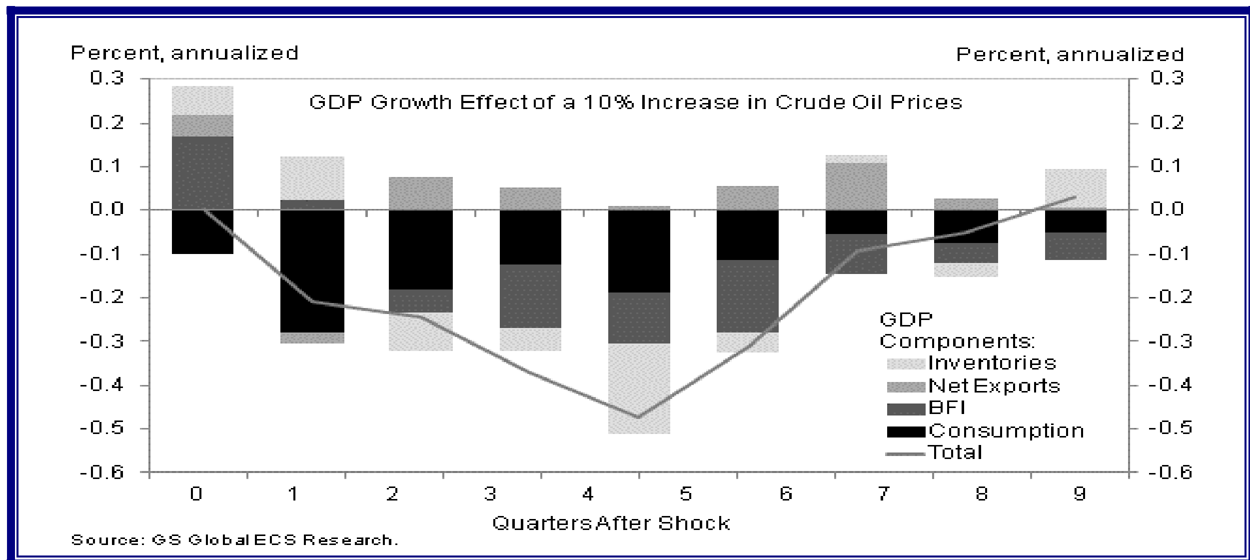
This calculation likely understates the growth effect, because it ignores that oil price increases also affect other components of GDP. Business fixed investment, for example, should decline because rising oil prices increase the cost of production, and lower private consumption reduces demand for firms' output, which in turn means that less investment is needed to expand capacity. Net exports, however, might provide some offset. Although the nominal trade deficit should widen as oil prices rise, the volume of imports would be expected to fall to the extent that energy spending is price sensitive.

More comprehensive studies have therefore typically found larger effects. Goldman previously estimated that a 10% rise in oil prices reduces real GDP by 0.2% after one year and by 0.4% after two years. The Federal Reserve's macroeconomic models predict a similar effect for a persistent $10 increase in the price of oil.

GDP growth is related to other factors besides oil prices, such as changes in our financial conditions index and CPI inflation. Recent studies suggest that the effects of oil price shocks have diminished since the mid-1980s because of the relative speed at which oil prices and growth respond to each other. Growth appears to respond to oil prices within the same quarter, but oil prices do not typically react to growth within the same quarter.

Exhibit IV illustrates the estimated response of (annualized) real GDP growth and its components to a 10% oil price shock. The following observations can be made: First, it confirms that rising oil prices act as a drag on growth. Specifically, an estimated 10% increase in oil prices lowers the growth rate of real GDP by an average of 0.2 percentage points during the subsequent two years—that is, the level of real GDP is lowered by 0.2% after four quarters and 0.4% after eight quarters. Second, it shows that most—but not all—of the growth drag stems from lower private consumption. Falling consumption accounts for almost the entire decline in GDP during the first few quarters. But then business fixed investment starts falling and inventory accumulation slows. Net exports—in contrast—tend to provide some offset during this period as real imports decline.

EXHIBIT IV



Source: Goldman Sachs Research

See "Aggregate Disturbances, Monetary Policy, and the Macroeconomy: The FRB/US Perspective," *Federal Reserve Bulletin*, January 1999).

These types of studies, however, are subject to considerable uncertainty. On the one hand, their estimates might overstate the likely effect of the recent oil price increase. First, the above estimates apply to persistent increases in oil prices. Specifically, the above estimates are based on a "typical" oil price shock which raises the price of oil in the first two quarters and then gradually gives back half of the increase during the subsequent year. Any oil price increase that is more short-lived—like the temporary spike in oil prices during the Gulf War in late 1990—should have accordingly smaller effects on the economy. Second, their estimates could be altered by a 2007-09 type rise as well. This is because crude oil prices surged before the financial crisis hit and the economy fell into deep recession. In managing portfolios, we are not expecting another financial crisis as experienced in 2007-09, because this oil shock would be based on asset prices and not specifically include dislocations to lending. The inclusion of the 2007-09 period would overstate its true effect. Dropping the "Great Recession" from the assumptions by ending the observation periods in 2006 reduces the effect of a 10% oil price increase on the level of GDP to 0.2% and 0.3% after one and two years respectively, according to Goldman Sachs Research.

On the other hand, their approach might understate the effects of oil price shocks that a Mideast dislocation might precipitate. Keep in mind that a number of economists have argued that oil price increases should have more detrimental effects than oil price decreases—especially when oil prices increase from an already high level. This is because rising oil prices may create uncertainty about the future path of the price of energy, causing consumers and firms to postpone irreversible purchases of consumer or capital goods. Including oil prices when they increase approximately doubles the estimated growth effect.

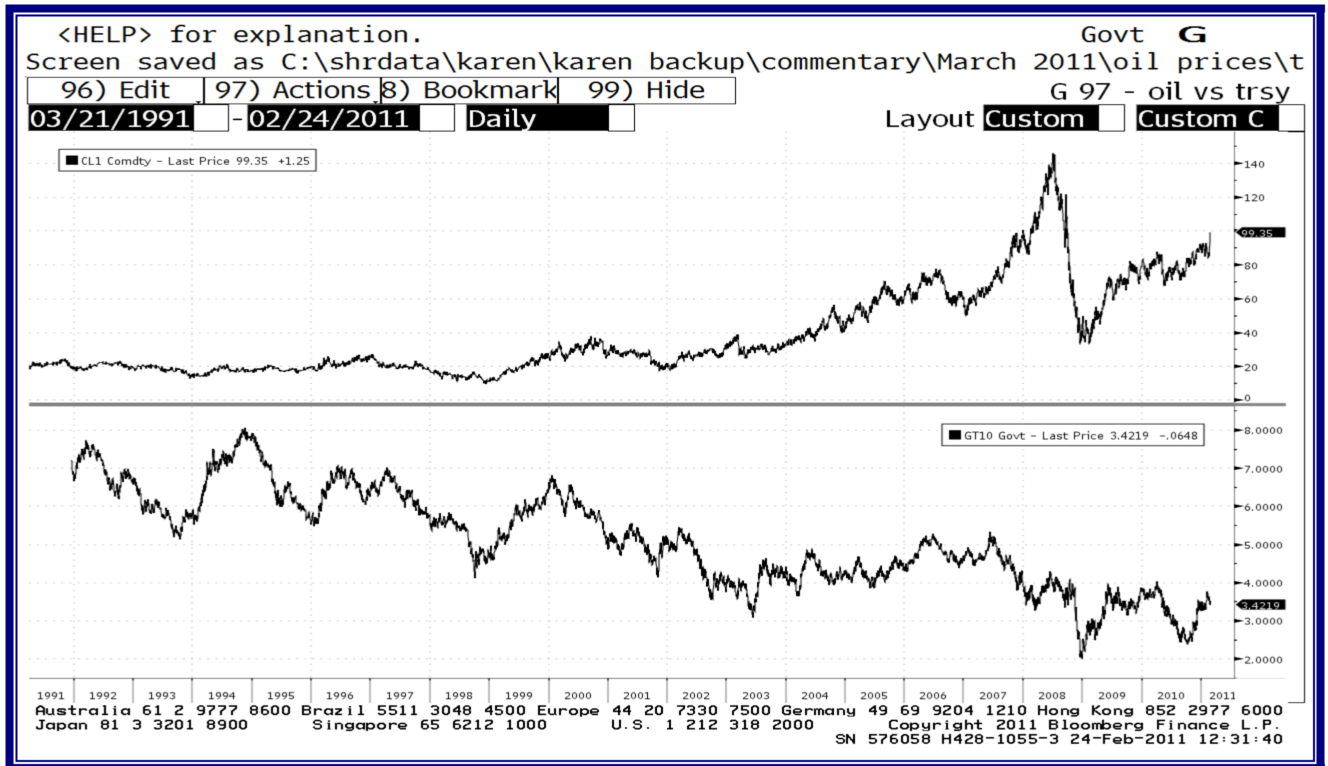
We are mainly interested in the effects of supply shocks, especially in the current context of political turmoil in the Middle East. However, a simple statistical analysis will tend to inflate supply and demand shocks. This could lead to an underestimation of the economy's potential vulnerability to a true oil supply shock. Our economic forecast of GDP of 3.0-3.5% does allow for an increase in crude oil prices, trending up to around $100 by the end of 2011. The result of oil rising substantially over $110 per barrel in 2012 could reduce GDP forecasts below consensus of 3.4%.

WHAT DO HIGHER OIL PRICES MEAN FOR BONDS?

Oil prices have risen almost 18% over the past three months. Historically when the three month change in oil prices was greater than 9.3% according to Ned Davis Research, Treasury bonds prices fell at a 2.8% annual rate. See Exhibit V. The recent turmoil in the Middle East has seen oil and bond prices move in tandem due to the risk aversion, but such instances tend to be short lived.

Bond prices typically have had a negative correlation with oil prices, as higher prices tend to be associated with inflation thereby putting upward prices on yields. Notably, the three and five year correlations of monthly changes in oil and bond prices are at their most negative levels ever. Rising oil prices is another reason we remain defensive on bonds at 85% or less of benchmark duration.

EXHIBIT V



Source: Altman Investment Management and Bloomberg

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