Bill Watkins December 8, 2014

US Forecast

Thoughtful students are often frustrated with macroeconomics, because we have so many theoretical models and there is no consensus about which is the correct model. The less thoughtful students just want to know what will be on the final.

My take on the multiple macro model issue is that each of these models has important insights, and the trick to economic analysis is determining which model is most appropriate for the situation being analyzed.

You might ask why somebody doesn't create a unified model. Attempts have been made, but it appears to be beyond our abilities. It also might be that such a model wouldn't be very helpful. It could just tell us that anything is possible, and of course, we already know that.

Forecasting is even more challenging. Not only are there all these theoretical models, but we only have data for a minute portion of mankind's existence, and those data are often flawed. Still, some attempt to forecast with extraordinarily complex models, one that will work in all states of the world. For example, there is the Ray Fair model maintained by Yale.

At CERF, we take another approach. We use complex models, but we don't attempt to model every facet of the economy, and we don't try to tease more inference out of the data than the data give us with only a minimal amount of torture. Consequently, our models are less complex than many.

The downside of our approach is that the models need respecification as the world changes. For example, we created new models after the Lehman Brother's collapse in September 2009. The world had changed in significant ways, and we needed new models to analyze the new world. Those models have served us well, but the world continues to change. We've been working on new models to reflect those changes.

When modeling, it's important to know that big economic changes come from excessive price volatility, or big changes in prices. The most recent recession is a case in point. The price of risk soared, while the price of real estate fell. There is also evidence that oil price increases contributed to the recession.

Oil prices have whipsawed the United States economy since OPEC first raised prices in 1973 in response to U.S. aid to Israel in the Yom Kipper War.

Oil price shocks are once again the driving force behind economic change, only this time for a completely new reason. Prices change in response to changes in demand or supply. Since 1973, price increases have been in response to supply interruptions by OPEC. Price declines have been a result of decreasing demand. Advanced economies are far more oil efficient, and thus less dependent on oil per unit of output than they were in 1973.

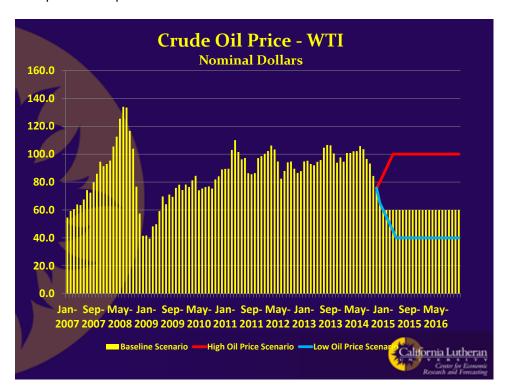
Today, though, oil price declines (negative price shocks) are mostly a result of new supply. It turns out the world had far more oil that many thought, and the peak oil folks are busy wiping egg off their faces. The ever entertaining Paul Krugman provides a classic <u>example</u>.

In just the past few months, we've seen an impressive fall in oil prices. This bodes well for our economy, and one result of the price decrease is the first major upward revision to our forecast in several years. We're pleased to be able to finally be able to make a significant positive revision.

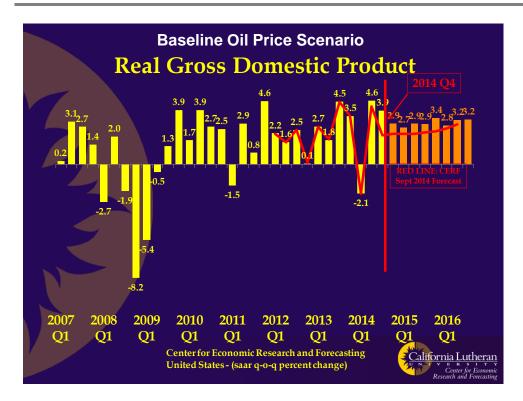
We're sure that a lower oil price is good for our economy. As we say in another essay, we're not sure of how much of the oil-driven gain will be offset by increasingly expensive regulation. We're working on models to incorporate those impacts, but creating those models is a tremendously difficult challenge.

We're also not sure of how low oil prices might go, or how long they may stay low. We'll be working on models for these issues too, but there are, again, very difficult problems in creating the models.

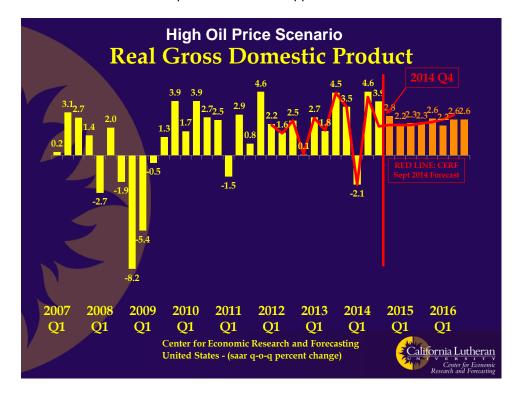
Absent a model that we are confident in, we present scenarios. The scenarios present possible future time paths of oil prices. Here are the scenarios:



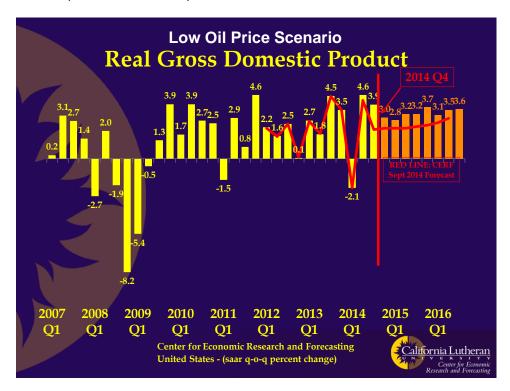
Our baseline forecast corresponds to the scenario where oil price falls to \$60 per barrel and remains there. It represents a major upward revision to our September forecast:



Even the scenario where prices return to the \$100 per barrel range is an improvement, because of the time it would take for the price increase to happen:



The low-price scenario is very nice:



We're pleased to be able to present a more optimistic forecast in the Holiday Season. We hope everyone enjoys a more prosperous 2015. We'll enjoy working on our models.