REACTION TIME

Cycle analysis looks at commodities in a unique way. Is it a useful tool for calling the tops and bottoms in the price of oil and natural gas?

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David Gurwitz is managing director of the Charles Nenner Research Center, which uses analysis of cycle tops and bottoms to predict commodity prices and other financial and economic indicators. It's been right more than once.

Investor *was recently introduced to the fascinating work of the Charles Nenner Research Center (CNRC), an international firm that uses a unique combination of proprietary algorithmic models to predict the direction, timing and level of market moves in stocks, bonds, commodities, currencies and economic indicators. It does this across the global macro spectrum for clients ranging from executives who need to make capital allocation decisions, to various financial institutions (commercial bankers, investment bankers, private-equity fund managers, M&A advisors, etc.), traders, family offices and sovereign wealth funds.*

CNRC was one of the few firms to call the top in crude oil at around $97 a barrel—before the move to around $50. It did the same five years ago when crude was trading around $147 a barrel, before it dropped by a stunning $100 a barrel over the next six months, during the depths of the financial crisis. In addition, the firm called natural gas from $6 per Mcf to $2 several years ago.

Everyone has a theory about oil and gas prices these days. Given the upheavals in the oil and gas space, we asked David Gurwitz, managing director, to explain how CNRC does what seems like predictive magic—and what benefits such analysis can have for the oil and gas industry.

Investor There are so many factors out there that could affect oil prices. How is it possible that "cycle and target analysis" can prdict what's coming? To be honest, it seems unbelievable. How can you justify ignoring things like supply and demand data, OPEC actions, Nymex traders' sentiment, drilling of new wells, well output, etc. Does any of this type of data come into play in your research?

Gurwitz Cycle analysis teaches us to think differently—that the news is not what is running the markets. Cycles are. Our experience teaches us—and this is a strong point—that cycle-based price analysis contains within it all the variables that you mention, plus others as well.

We are not looking at the effect of the news, but rather, we are looking for the reaction patterns from the past, in order to determine future moves.

There is a growing sense that the "craziness" and volatility of markets are not apparently explainable by fundamental research or earnings projections, but by past patterns repeating. This provides comfort to those looking for explanations to market movements.

Investor So, you use cycle and target analysis to determine market direction. How does this work?

Gurwitz Cycle analysis finds repeating patterns from the past, and assumes—until proven otherwise—that these patterns continue, providing a unique tool for market timing. The word "cycle" comes from the Greek word meaning circle. Many think of cycles in terms of the nine-year inventory cycle, the 60-year cycle in interest rates, or the four-year presidential cycle, etc.

We view cycle analysis differently. Our system, developed by Dr. Charles Nenner while he was in medical school more than 30 years ago, looks to find *many* cycles in every data series. Charles, who still serves as the company's head of research, sought to identify repeating patterns of equidistant top to tops (which look like overlapping sine curves). This basic concept works across all asset classes.

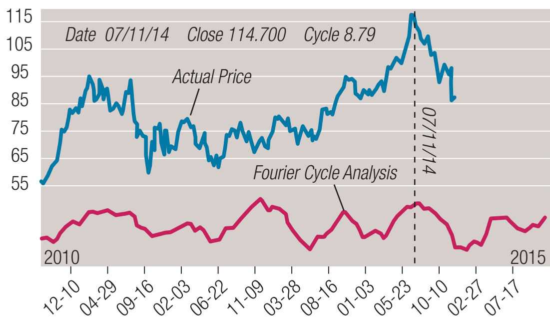
Investor You called the major top in crude twice in the last five years—first at $147, four years ago, and recently at $97. Can we see how the system works?

Gurwitz Let's use Schlumberger as an example, and study two charts we sent to our clients over several months. The top blue line is the actual price of SLB, and the bottom red line is an amalgam, utilizing Fourier analysis, of the many combined cycles that we found. The thicker broken vertical line refers to the date, shown in the upper left of the chart. We assume those confluence points to be a top or bottom—plain and simple. Reasons and rationalizations we leave to smarter people than us.

Along with the first chart, we said, "In mid-July 2104, we warned that SLB cycles looked toppy, and gave a sell signal on a close below $108.20. On August 1, SLB closed at $107.95—and has been on a sell signal since—correcting over 20%. Based on cycles, it is still too

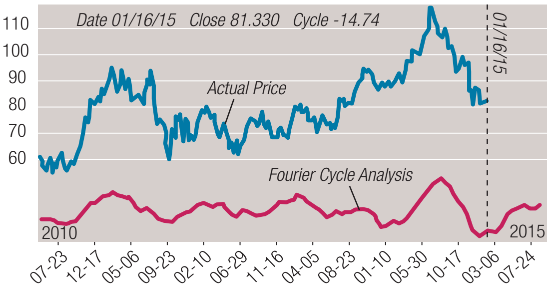
Schlumberger forecast sent on Dec. 7, 2014

Chart 1: Schlumberger Ltd.



Schlumberger forecast sent on Feb. 1, 2015

Chart 2: Schlumberger Ltd.



early to look for a tradable low, and we expect to still see $78.30."

The call turned out to be correct. Once we determine timing based on cycles, we use a second system to determine price targets.

With the second chart, we said, "Weekly SLB cycles seem to have bottomed, and a close above $86.50 gives a buy signal."

Our system clearly called the top—timing and level—and now (we suspect) the bottom.

I'd like to stress that we do not manage money. We are independent forecasters who believe that our system is truly fundamental, since it works, even though we don't know why, while so-called "fundamentals" don't predict these moves.

Investor Natural gas is another commodity that we think about a lot. How have cycles worked in the past with regards to that?

Gurwitz Natural gas provides a perfect example where cycles predicted correctly, but many businesses suffered because they could not anticipate the move.

Investor What do you mean?

Gurwitz As your readers well know, there was once a world before fracking. Several years ago, gas was $12, but then it went down to $6. Everybody thought it was going to go back to $12. We had just started covering natural gas at that time as part of our forecasting service. We said then, "I know this may seem crazy, but nat gas is going to $2." And everybody said, "How's it going to go to $2?" Our answer was, "According to cycles and our target algorithm based on past patterns, it's going to go to $2. That is all we know."

What happened? Several Canadian banks lent some gas producers a lot of money when it was trading around $6. Then it went to $5, to $4, and then to $3.50. The bankers said, "We made a loan with collateral at $6; now it's $3.50. We'd better do something."

The banks contacted many of the producers, and told them, "You need to sell more, and you've got to start paying our loan, since you are violating the loan covenants." The producers started selling. But the media's explanation of why gas prices had declined was that it was due to bank pressure on producers.

Since we had the luxury of cycle and price target analysis, we knew the real story. According to our way of thinking, nat gas had to decline because of downward cycles—and then, the banks caused the pressure within the cycles. Natural gas came to $2. We called the run-up after, but we think gas will return toward $2.

Investor When you recently called the top in crude at $97, and it rose beyond that and above $100 per barrel, what was your first reaction?

Gurwitz I am a fan of sports analogies. When Tom Brady (or Tony Romo) goes back to pass, he actually is counting one, two, three, etc., before he throws to a spot where the wide receiver is heading. (I was a football receiver in the old days, although I preferred baseball and basketball, since I got hit less often!) Here, too, there is timing first, and then, level (how far and how hard.)

Our target system is technical. It provides most likely targets, and then readjusts. It gives us timing—when to look for tops and bottoms. We look for both to line up. Since it is designed by humans, we don't expect perfection. However, we have decades of experience across all markets to know that, at a cycle top, even a move going past our target number probably wouldn't last long.

Investor Did you change your forecasts—or, did it reinforce for you that the crude market was irrational and that you were correct?

Gurwitz We don't think about markets as "rational or irrational." Our price targets are derived from complicated mathematical calculations, largely based on quantum physics. The cycle top in this case—timing—gave us a window in which we saw the end of the up move shortly after the price—the level—rose just $3 past the $97 target. Considering where crude prices have gone to since then, I am quite confident that very few, if any, even came close to that prediction.

Investor What do you see going forward?

Gurwitz Here's our latest research as we go to print: Feb. 4, 2015: "Crude (March futures contract): Our studies for crude seem to be paying off. After we gave a sell signal at around $97, we also gave the low (so far) at exactly $44. Crude bounced close to 15% in a few days.

"Now, short-term cycles look toppy again, and we expect some more weakness, as long as there is no close above $57. That is the level needed to cancel the long-term sell signal. We repeat that crude is very volatile and remains a high-risk trade. The USO continues on a Buy signal since $17.82, and we raise the stop to $18.50."

Our longer-term view is that we do not believe that crude prices will remain down for a long time. We know that most wells produce a big part of their output early, so timing of the drilling process is critical for operators and equity and debt participants, as well as MLP investors.

Most of the drilling projects—horizontal or vertical—have positive economics only with barrel prices higher than today's prices. Having an idea of the timing and levels might assist decision-making. If I may take the liberty of another sports analogy, it might also assist in handling "pain management."

We think happier days are in store. □