

Time and Price predictions combining Cycles with Pivot Point Analysis

Written by:
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Market analysis, in the simplest term, is the study to determine price direction. Whether that movement is up, down or sideways. Timing the price direction has been the trick for most analysts. The two critical events for traders is where and when. From Wall Street to LaSalle Street the country is full of ex-traders who were right on calling a market move but dead wrong on timing. Looking at the most popular market in history, namely the stock market, I want to point out two reliable tools that have so far been uncanny in helping to pinpoint both time and price with a small degree of error in determining important market bottoms this year.

The first tool is the study of cyclical analysis. The study of cycles, or the reoccurrence of events, like predicting tops and bottoms of market prices, is a fascinating tool. Cycles like timing the sunset or tide changes can be useful in determining turning points for those events. It is also an important trader's tool for predicting price points. According to some traders due to the unpredictability of future market behavior derived from past performance, it is not a consistently accurate trading tool.

However, I wish to point out the coincident factor of recent Equity market price behavior and show you how it has been an incredible tool in determining the major short term bottoms in the Dow and S&P 500 futures contracts so far this year. The other traders tool is using Pivot Point analysis with different time frames to calculate the corresponding support numbers as these cyclical lows have occurred.

To better understand the methodology behind cycles let's first examine the foundation of the basics behind the principles. First, I want to review the four important topics or principles of cycle analysis.

1. The first is Summation, which is the addition or measurement of two or more cycle lengths.
2. The next is Harmonically interacting cycles. This is where the price will react with a cycle within a cycle.
3. The concept of Synchronicity relates to the market price having a strong tendency to repeat at the same time.
4. The last principle is for Proportionality. This has to deal with the time interval of corresponding price behavior (tops or bottoms) and the price movement or market reaction from that point.

The first chart below in figure 1.1 is a five-month cycle study on the S&P 500 for reoccurring bottoms. As you can see the market's price reaction varies from cycle bottom to cycle bottom. The reoccurring lows are pronounced and distinguished nonetheless. The same study is done in figure 1.2 for the Dow Futures contract.

The next cycle lows are due in December where the synchronicity and potential harmonic timing may occur with the five month and eleven week cycle coming together by December 24th. The proportionality of a potentially big price swing can also be anticipated due to the seasonality of the Santa Claus rally. This is an event

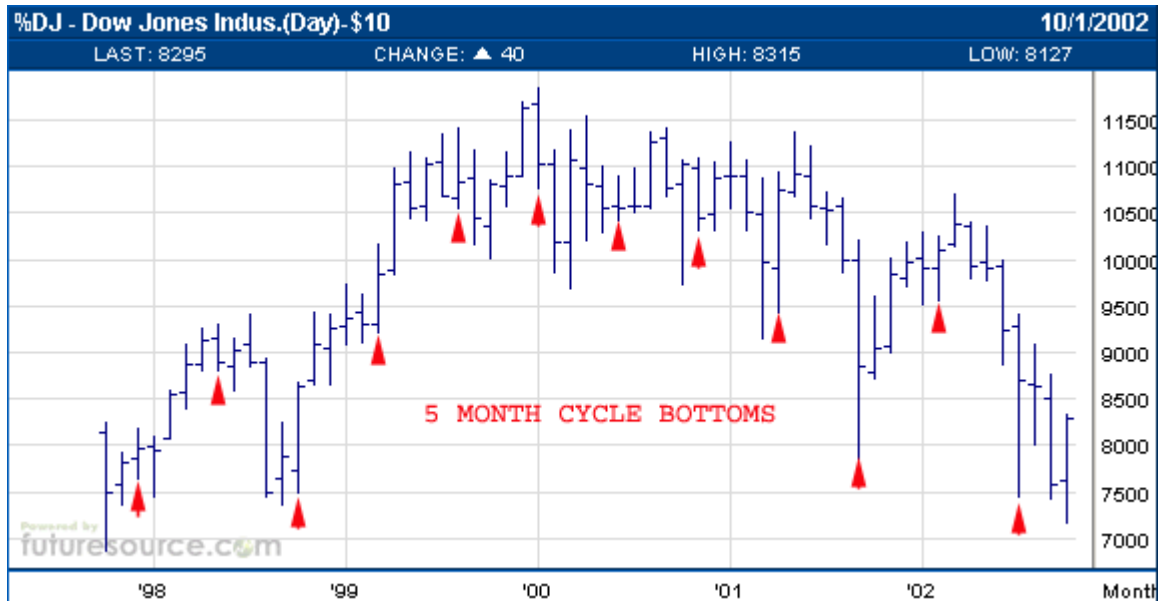
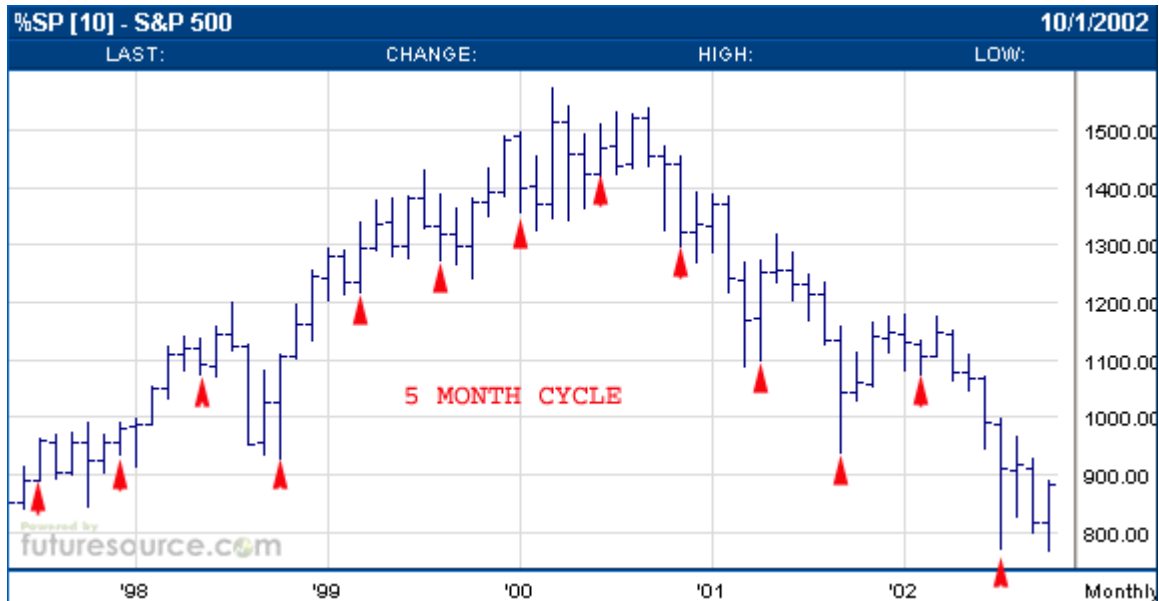
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that usually occurs in the last five days of the year that continues into the first two weeks of January.



I want to introduce you to the concept of combining the different time frames such as daily, weekly and monthly for cycle studies and combine it with Pivot Point Analysis and show you what the results were and what the potential is for determining future price projections.

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Pivot Point Analysis is a famous technique that is used as a price forecasting method for day traders and professional traders as well. It is very popular among professionals. Let me point out one more issue on time. In every given month there are usually four business weeks and twenty-two business days. In some instances, if you break it down, one day of one week in a given month a high and or a low will be established, thus creating the range for that month. How can we, as traders break it down to help determine what the high or low for that time period will be? Well trend lines or prior price targets help, but the aid of using Pivot point analysis for all time periods is essential. The benefits to you may help improve your timing of entry and exit points of the market.

Most novice individual investors and even brokers are not familiar with this formula. I believe that most inexperienced investors have a hard time with incorporating this technique in their trading "tool box" due to the time it takes to calculate the numbers. But make no mistake the professionals' look at it and so should you.

First here is the mathematical formula where P= Pivot point; C= Close; H= High; and L= Low.

The Pivot point number is the high, low, close added up and then divided by three.
 $P=(H+L+C)/3=$ pivot point

Now for the first resistance level take the pivot point number times two and then subtract the low. $(P \times 2) - L =$ Resistance 1

For the second resistance, take the pivot point number add the high and then subtract the low. $P + H - L =$ Resistance 2

For the first support take the pivot point number times two and then subtract the high. $(P \times 2) - H =$ Support 1

For the second support, take the pivot point number subtract the high and then add the low. $P - H + L =$ Support 2

All right, now that we have that established you can see it is a detailed formula. So let's try to simplify it. Consider the actual Pivot Point as the average of the previous sessions trading range combined with the closing price. Based on the past weight of the markets strength or weakness, which is derived from the calculations of the high, low and distance from the close of those points.

One method for using these support and resistance numbers is to consider them as the potential range for the next trading session's time frame. The previous sessions trading range could be based and calculated for an hour, a day, a week or a month.

Another method that Pivot Point analysis is used for is identifying breakout points from the support and resistance calculations from the R-1, R-2, S-1 and the S-2 numbers.

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Since most technical analysis is derived from mathematical calculations the common denominators that are used are the high, low, close and the open. This is what is used for plotting a bar chart. More notarized techniques like Moving averages, Relative Strength Index, Stochastics, and Fibonacci numbers are all calculated using mathematics based on those points of interest. It is also what is published in the Newspapers. It is there for a reason. The concept is this, as technical analysts we are trying to use past price behavior to help us indicate future price direction. I am not trying to predict the future I just want an Idea of where prices can go in a given time period based on where they have been. After all isn't that similar to the concept of drawing trend lines?

Verify, verify and verify. What it means to me is this, before deciding to invest or make a trade, if I understand the underlying fundamentals, I would want to look at a chart to confirm the trend and then I would look at varying technical indicators to help confirm my beliefs.

By incorporating different techniques like cycle studies and pivot point analysis, the figures help me speed up my analytical process. With these numbers I can take my charts and draw lines with the support and resistance numbers on them to see if they help clear the "visual" picture. This is one technique that traders should try. Verifying the validity of cycles is a relatively easy task. One can back test with a software program or manually by visualizing with charts by a ruler and a calendar.

I want to also introduce the basic theory of Fibonacci, as it is an important element in the price behavior of this study. Thirteenth century Italian mathematician Leonardo Fibonacci concluded that a number sequence reflected human nature and that patterns repeated themselves in a certain order. The Fibonacci Series, as it is called, is an infinite series of numbers that adds each number to the previous. An example is 1,1,2,3,5,8,13,21,34,55,89,144... These numbers are used to help cycle analysts time market turns, lengths of price moves. Major tops or bottoms are often calculated by starting with the event of a high or low and then calculating out in time by price increments that correspond to the Fibonacci series. Fibonacci is also famous for the ratios derived from the number series. For example .382%, .50% and .616% are the most popular of numbers. More detailed numbers include .786%, 1.00%, 1.272% and 1.618%. Some programmers and sophisticated analysts will multiply or subtract from either a time series or a price level to help them calculate a price extension or correction as well as a time event on the axis of a chart. Taking a number from the Fibonacci series and applying it to the time axis of a chart, one can look for the repetitive, or coincident sequence of highs and lows. This will assist a trader to project or anticipate the next time series of events in the future.

The importance of the cycle of the five-month market low is, the number five is a Fibonacci Series number. What about the 11-week cycle what is the relationship there? Harmonically, it is extremely relevant as 11 weeks represents nearly half or .50% of the value of five months. The next intricate study is when we dissect the 11 week cycle you will conclude that it represents 55 trading days and there is the exact tie in from a Fibonacci sequence number of 55. This is what I would consider a strong confluence of Fibonacci sequence numbers.

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Lets examine the chart on the S&P 500 first. In the chart below in figure 1.3, I have identified the acting or corresponding cycle lows.



Figure 1.3

I want to combine the importance of the Pivot Point analysis for the last three major 11-week cycle lows. You be the judge if it would have helped you trading abilities. I am going to give you the actual high low and closes for the prior trading week and then reveal the actual lows for that next week that synchronized with the corresponding lows. Due to futures contract roll over we went from June contracts in May then the September contract in July and now the December contract for October. When the December cycle is due you will be analyzing March futures.

In the week ending on 5/10, based off of the June contract, if you take the prior weeks high (1091.8), the low (1063.5) and close (1073) and work the calculations then you would have had derived **1047.8** for your S-2 calculation. The actual low was made on Tuesday May 7th at **1045.8** and then proceeded to stage, at that time, one of the years biggest one day wonder rallies up to 1089.9. By the following week the price hit 1109.10 on 5-17-02

The next 11-week cycle low was a Harmonic cycling that coincided with the five-month cycle. This occurred on July 24th (coincidentally a full moon day). If you examine the prior weeks data from the September futures contract the high (929.5) the low (840) and the close (844), again the S-2 calculation was **781.67**. There was a larger amount of price difference from the projected weekly pivot point calculated low and the actual low, which was made on Wednesday July 24th at **771.3**. However, it was only below the 781 target low for about one hour! In my opinion, due to the severity of the decline and the Harmonic timing of the event, a larger price reaction occurred, namely a 194-point rally that lasted nearly four weeks. The high for that move was hit at 966 on 08-22-02.

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The final 11-week cycle that appears on the chart occurred on October 10th based off of the December futures contract. Taking the prior weeks high (854.5), low (792.5) and close (805.8) I calculated the S-1 at **755.60**. Here the actual low only fell to **767.55**. The price action by the next week saw a move back to a high of 889.5 and closed that week (10-18-02) at 883.2

The chart below in figure 1.4 represents the Dow Futures contract. As an equity-trading vehicle it is gaining popularity among day traders. For good reason, liquidity is high and the Chicago Board of Trade is really getting behind the launch of this product. I write a Daily Mini-Size Dow report that is viewed on the Chicago Board of Trade Website under Traders Resources. It is aptly named the Traders Learning Center. I myself, am excited with this trading product and want to point out with the popularity of the Dow Jones Industrial Average, the volatility and liquidity, all of these are excellent qualities and reasons to consider this as a viable trading vehicle. Now the question is do these trade signals work on this product as well? In my opinion yes, you be the judge.

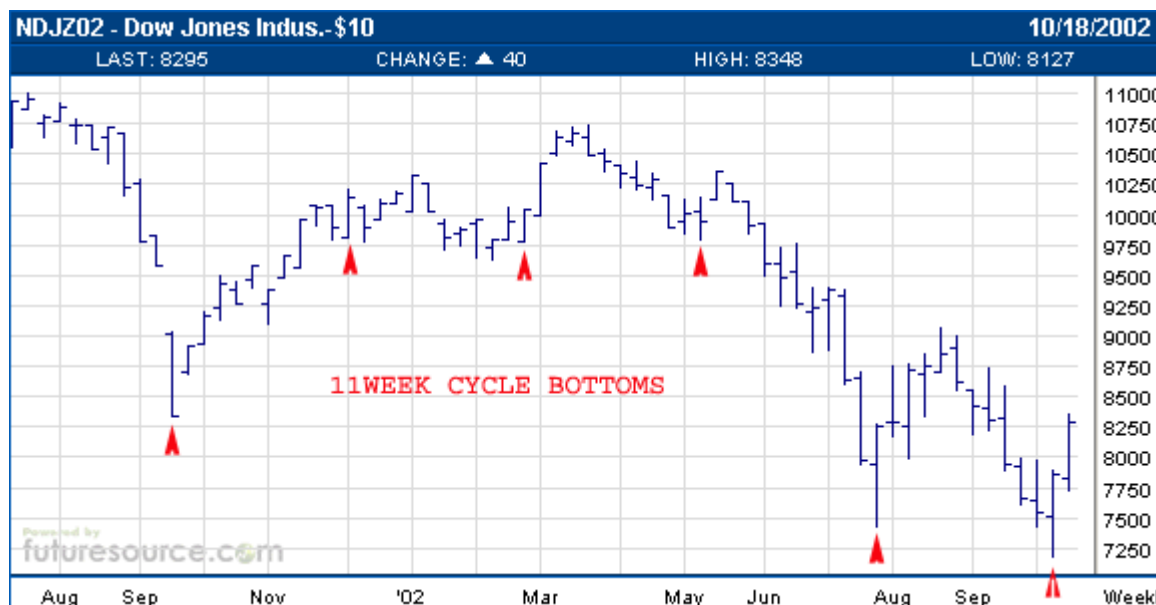


Figure 1.4

The 11 week cycle that occurred on October 10th made a low at 7180. Based off of the December futures contract, taking the prior weeks data of the high (7980), low (7450) and close (7550) the S-2 was **7130**. The actual low was made on Thursday at **7180**! The results here was the market by the end of the following week ending on 10-18-02 made a high of 8330 and closed the week at 8295.

In this last example yes we were alerted to the potential low would be established sometime in that week. We were also alerted to the POTENTIAL of the target low of 7130. The margin of error was about 50 points, but I believe one could have made a better trading plan based off of this information. At the very least armed with this information I don't think one would have gone short either.

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The coming event of Christmas and the Holidays and as I mentioned the seasonality of the Santa Claus rally could be a more important development this December as the Harmonic timing of the Five Month and Eleven Week cycles are due. To be precise my studies show a low due to be projected on the week ending on December 27th.

Will it work? Time will tell, but I promise you this, I will be armed with the knowledge of this event and the weekly and monthly Pivot Point Target Numbers! I will be doing a follow up but until then keep counting every 11 weeks!

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