Cycles in Bitcoin: How understanding cycles can improve trading during crypto mania

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Understanding cycles in emotional markets is critical for spotting market turns in advance. This article demonstrates the power and importance of cycles in the new era of cryptocurrencies.

In the article, we provide real examples from recent months based on a dominant cycle detection framework. The Dynamic Cycle Explorer works on the assumption that cycles are not static over time. Dominant cycles morph over time because of the inherent nature of the parameters of length and phase. Typically, one dominant cycle will remain active for a longer period and vary around the core parameters. As real cyclic motions are not perfectly even, the period varies slightly from one cycle to the next because of changing physical environmental factors. This dynamic behavior is very important for financial market cycles as we need to derive trading decisions in real-time—and therefore we need current information about the active cycle and not information about mathematically "fitted" cycles from the past.

How does the approach work? Every time a new bar appears on the chart, the Dynamic Cycle Explorer (DCE) reassesses the state of the current dominant cycle in terms of length, strength, and phasing. Subsequently, it updates this cycle by plotting it onto future projections. However, a trader will focus only on the next expected turning point, which is what interests a market analyst. The DCE is not used to predict a complete static cycle far into the future. A trader is interested in determining and monitoring the next turning point based on the detected dominant carrier wave, which is the point in time where the market under observation is expected to turn.

Moving forward in time, every bar signifies an update of the expected turning point through a reassessment of the current state of the dominant cycle length and phase. This dynamic forecast based on the actual state of the dominant cycle provides information about the time and direction of the next turning point. We obtain real-time information about when to expect the next major turning point in the market as we continuously reassess the parameters of the dominant carrier wave, and the information is updated every time a new bar appears. This technique was used in the following cryptocurrency cycle analysis for Bitcoin, which is illustrated with daily charts comparing Bitcoin to the USD.

The dominant cycle analysis mid March 2017 shows that Bitcoin reached the 1,200 USD all-time-high area again. Bitcoin gained momentum in the media and mainstream, and the overall question discussed was: "Is Bitcoin hyped again and will it crash back down to 200 USD?" Cycle analysis can help to get a serious and objective view. Bitcoin is an interesting vehicle to use for cycle analysis as Bitcoin/USD bundles a lot of emotion and hope, as well as fear. As cycles work best when the underlying force is backed by emotions, it is a perfect time to do a cycle analysis for this market.

We can apply our dynamic cycle tools to this dataset to see if we can detect important dominant cycles that forecast Bitcoin extremes. This exercise was performed on March 12th using the DCE (see Figure 1). The Dynamic Cycle Explorer can automatically detect the current active dominant cycle and track the current phase to forecast the next expected turn.The first chart shows the detected dominant cycle length of 85 days. When the analysis

was done on March 12th, Bitcoin traded at 1,240 USD and the detected cycle projected a current market top. Based on this cycle analysis, we would expect Bitcoin to stop here and move down. The cycle also shows us the next "expected time of arrival" (ETA) for the bottoming area, which is projected for mid to late April.

Figure 1: Cycle Analysis March 12th 2017

After this forecast is done, we move forward in time and update our cycle analysis day by day. Our current forecast tells us to expect a top now and upcoming low mid to late April. This is similar to receiving weather information that the temperature is 20 degrees today, and it is projected to be 5 degrees in April. However, we will look at the weather forecast day by day as we move closer to the days of interest, because the weather forecast becomes more reliable. It is the same with dynamic cycles; we will not treat this initial forecast as a static projection and wait until April to go long again. Instead, we will re-check the dominant cycle each day. In general, a dominant cycle will not change abruptly; instead small changes/deviations in cycle length and cycle phase will be observed (e.g., the position of lows/tops). We are not interested in a perfect match to what has happened in the past – we are interested in trading on the right side of the chart, where we must make decisions in real-time. Therefore, it is very important to track these little deviations in length and phase day by day.

Having said that, the following chart shows the situation progressed forward to April 15th (see Figure 2). The first analysis done in March showed a projected area for a bottom, but we can

see that the cycle has moved into a dominant cycle with a length of 86 days, and a phase now projecting the market low in Bitcoin in early to mid April. The market low has shifted to the left on the chart, signaling that the market low is now expected earlier than indicated by our first forecast in March. This is exactly the crucial and all important information in trading; we need real-time information about the CURRENT state of the dominant cycle for the current bar, not averaged "fitted" cycle information for the chart history. Therefore, the new length of 86 days and the updated cycle phase offset (= cycle low now moved to the area of early/mid April) is the important take away from the cycle analysis picture in mid April. The huge drop to a new intraday low around 800 USD, in combination with an updated market cycle low, now indicates the start of a new upswing in Bitcoin.

It is important to mention that the cycle indicator parameters have not been adjusted or changed since the initial analysis in March. We just moved forward in time, and the dynamic cycle indicator has automatically updated the information about dominant cycle length and phase in real time with each new bar.

Figure 2: Cycle bottom, detected on April 15th 2017

So on April 15th, with Bitcoin trading at 1,170 USD, there has been a sideways move since our initial projection. A sideways move in the cycle downturn projection also tells us that the market is still in a strong uptrend. By combining price and cycle information, we get another important piece of information about the market. Even though the market only dropped a small amount and mainly moved sideways during the last month, in alignment with our cycle projection, we can determine based on this information that we are still in a strong uptrend.

It would not be possible to gather the strong uptrend information just by analyzing the chart alone. However, if a sideways movement is observed in a current downward projecting dominant cycle, it is a warning that the next cycle upswing will be accelerated by the underlying intact uptrend.

Therefore, as cycle analysts, we now see an upcoming upswing in Bitcoin, which should last until late May/early June. As traders, this gives us high confidence to enter another long trade in a Bitcoin/USD pair.

We now move forward in time and again update our cycle analysis day by day. We move forward step by step until May 25th, where Bitcoin made a sharp upward move and traded at around 2,300 USD. So our cycle projection from 15th April (Figure 2) correctly predicted the upswing in advance, and Bitcoin doubled during the predicted upswing from 1,200 to 2,300 USD. This is the power of cycle analysis. As stated above, if you know in advance that this dominant upswing cycle will happen in a strong and intact uptrend phase, the probability for a profitable trade increases. Therefore, even the price movement during the predicted downcycle in March/April gave us additional information on how to judge the projected upturn.

Figure 3: Bitcoin doubled after forecast; Cycle top detected on 25th May 2017

However, the current cycle analysis shows us a new picture (see Figure 3). The dominant cycle arrived at the cycle top, and a downward move into the first half of July is now forecasted. As traders, we would exit the long trade here with a profit of +100%. Before entering a short trade, we need to consider that the last two cycle swings also showed us that we are in a running strong uptrend. Establishing a short position in an uptrend would be a high risk trade. Therefore, we again have two clues from the cycle analysis. Once we compare price and cycle projections, we derive the underlying trend. In regards to trading, we should watch for situations where the next cycle projection is in the same direction as the underlying longer trend. In this case, we would be out of the market until we arrive at the next projected bottoming area, which should arrive in early July.

From the analytical point of view, it can be seen that the dominant cycle indicater has now updated the cycle information with a revised current length of 83 days and a stable phase situation for the lows/bottoms.

As we are neutral and do not want to trade a downward cycle in a strong uptrend, we need to update our cycle analysis. We move forward to July12th, 2017—the projected window for the next bottom.

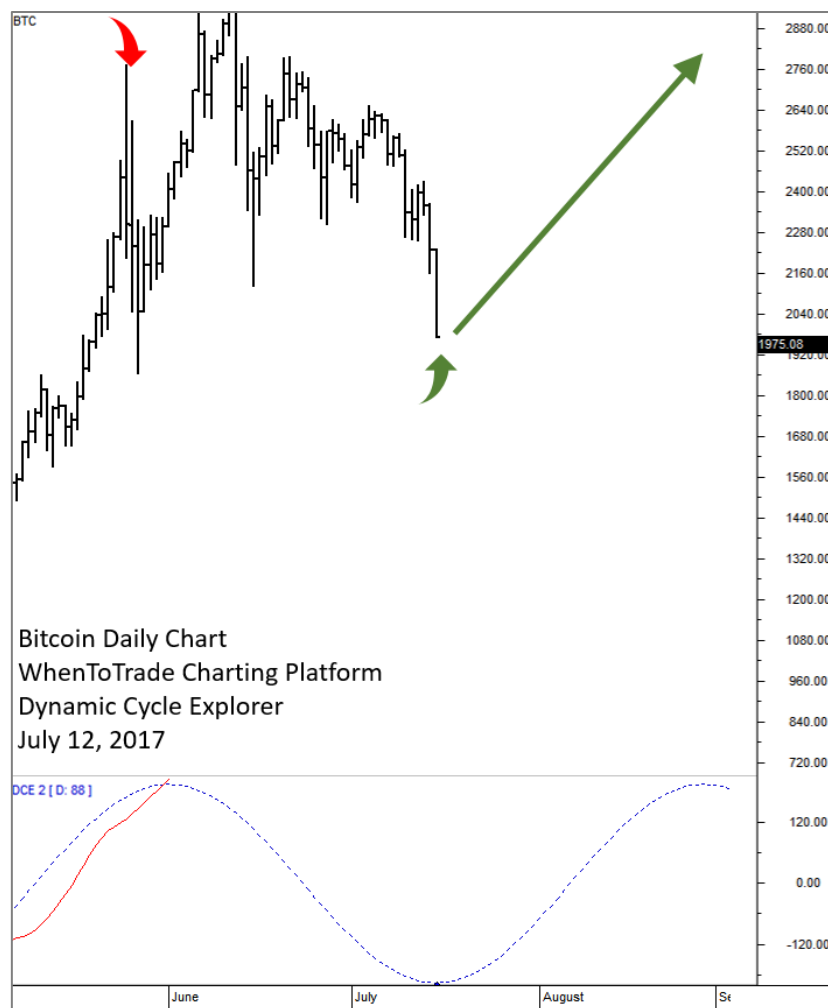

Figure 4: Dominant cycle low with projected upswing on July 12th 2017

The current cycle indicator on July 12th shows that we have now arrived at the middle of the cycle bottom timing window (see Figure 4). The cycle has morved into a dominant length of 88 days, and the phasing bottom window moved from early to mid July. This is all shown automatically by the Dynamic Cycle Explorer indicator in the bottom window of the chart. Again, the indicator parameters and settings have not been adjusted. The indicator automatically detected the current dominant cycle length and phase settings and projects the cycle into the future, as seen on the chart.

Bitcoin moved down from 2,300 to 1,900 USD—as indicated ahead of time by our downward dominant cycle projection from May 25th. However, compared to the strong upturn during the

last upswing cycle, this is not the same force—therefore, by comparing price and dominant cycle information, we can determine that the uptrend seems to be intact again.

That is what we are looking for as traders: a dominant cycle upswing projection on July 12th in a strong uptrend market phase. Both outcomes have been derived by monitoring Bitcoin day by day during the last three months using our Dynamic Cycle Explorer.

We are now prepared for the next upswing in Bitcoin. The currency is trading at around 1,900 USD. So it is even more interesting that the media or most "financial" analysts out there have been predicting a market crash for Bitcoin after the exponential rise in 2017.

For example, the Elliot Wave Theorist warned about the current mania in Bitcoin in his newsletter on July 13th: *"The Elliott wave pattern […] will lead to the collapse of today's crypto-mania."*

However, our cycles showed a different and clearer picture; an expected dominant cycle upswing in an intact uptrend, as the projection is calling for a upmove into late August. So from a trader's point of view, we would establish another long position in Bitcoin/USD at around 1,900 USD on July 12th.

So—what happened?

Instead of the "tulip mania" crashing, Bitcoin moved up in another sharp upturn from 1,900 USD to 4,400 USD. Another +100% upmove took place in our projected upswing cycle timing window.

The following chart shows the progressed Bitcoin chart, updated on August 25th (Figure 5).

Figure 5: Bitcoin upmove in cycle upswing, August 25th 2017

The arrows and the purple line indicate our cycle signals from the full analysis. There were two sharp upmoves in parallel to the projected dominant cycle upswing periods, and two sideways/downward phases during the dominant cycle downswing periods. All these situations have been gathered on the day of the analysis with an indicator that has not been adjusted during the full analysis.

This example shows the power of cycle analysis. Even more, it shows the power of this kind of analysis on new markets which are driven by greed and fear, where cycles can expand their true power.

This cycle analysis can be reconstructed even with different charting platforms. For readers who would like to get more background about the Dynamic Cycle Explorer, this information is now publicly available in our revised 3rd book edition "Decoding The Hidden Market Rhythm: Part 1 Dynamic Cycles," which includes all code for the cycle detection algorithm.

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CYCLES REVIEW UPDATE AFTER THE FACT:

The last chart (figure 5) from the public article predicted a Bitcoin top from the ~80 days cycle for end of August 2017. Bitcoin topped on 2nd September and lost over 35% after this signal.

The cycle top was also confirmed by the cyclic RSI indicator seen at the bottom of the chart.
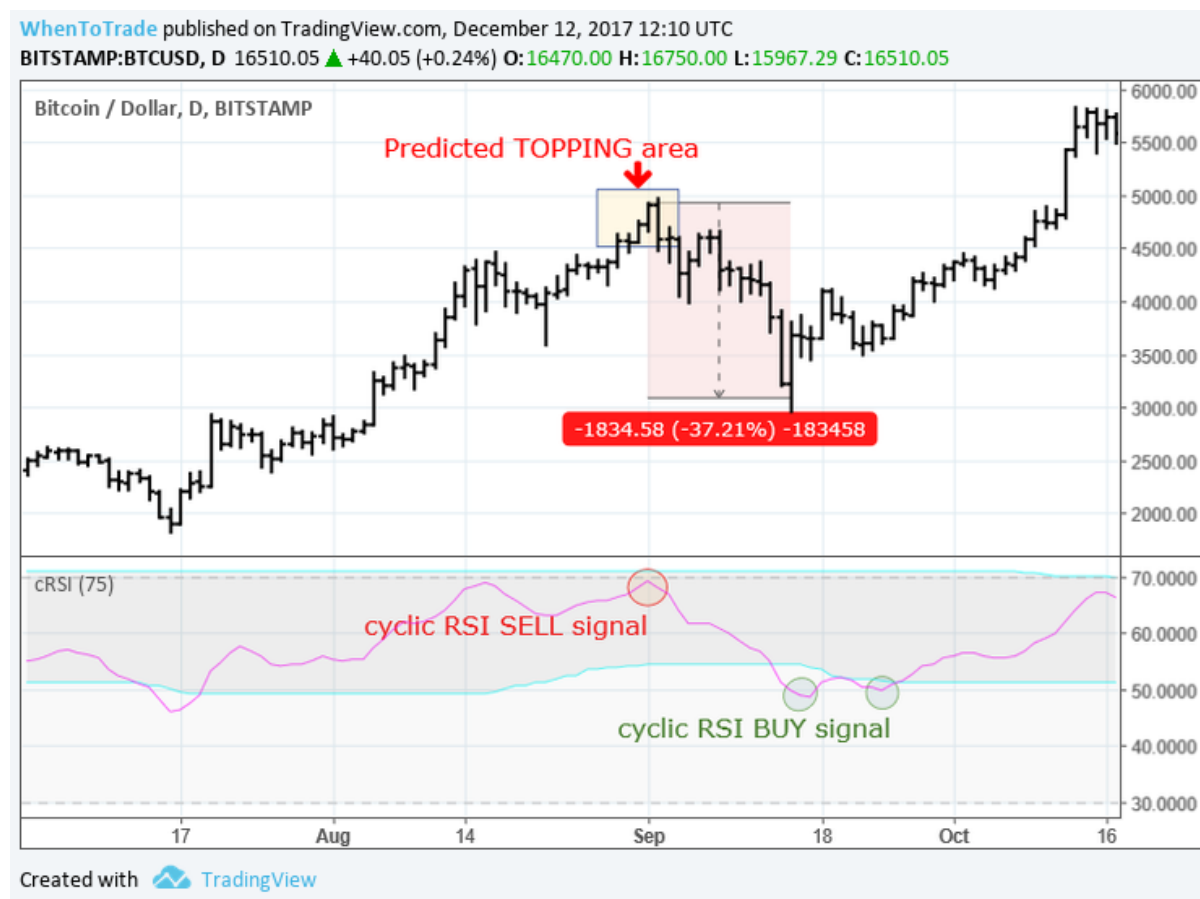

Figure 6: Updated Bitcoin trading price down move after the predicted top.

However, that's not all. If you have followed the discovered ~80 days cycle and would have checked the cycle state, the updated ~80 days cycle has alreted us for the next cyclic bottom on 5th October. (Cyclic buy signales from the cyclic RSI indicator already spotted a low entry mid/end of October. So the dominant cycle bottom on 5th October has been seconded by cyclic RSI signals stil valid at that point.)

This forecast was also available via our public daily cycle briefing email.

Daily Market Cycles Briefing Thursday, October 5, 2017

Crypto Currencies

Symbol	Date	Price	Cycle Phase	Phasing Score	Cycle Length	Next Cycle Pivot
Bitcoin USD	10/5/2017	4232.5	BOTTOM_Arrival	-135	88	Low
Litecoin USD	10/5/2017	51.27	BOTTOM_Departure	-140	62	Top
Ethereum USD	10/5/2017	292.25	BOTTOM_Arrival	-130	76	Low

Figure 7: Screenshot of our daily cycles briefing eMail on 5th October 2017

The eMail gives you a daily update about the dominant cycles without any need to do chart analysis. The crypto-currencies (Bitcoin, Litecoin and Ethereum) have all been in a cycle-within-cycle alignment with an average dominant cycles length of ~80 again. The cycle phase for all three crypto-currencies signaled a "green" bottoming phase – indicating a long trade entry. These kind of cycles-within-cyclies alignments in a related financial asset group a very strong signales. This forecast was send out to all receipients and was also published in the public form section (Link: https://www.whentotrade.com/wtt-forum/topic/cryptos-bottoming/)

Bitcoin traded at around 4200 USD at this new bottoming signal – from the last topping area seen at the end of August at around 4500 USD. So we did see again a sideways move during the cycle downturn period, indicating a still intact strong upward trend. Showing even more power for the next expected upswing after 5th October. So the dominant cycle detected in March 2017 and published here in August again did predict the topping period in September and the next bottoming area at the beginning of October.

We all know the story after this signal…

Happy trading!

Lars von Thienen,

Update added: December 2017

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