Cryptographic Spike Theory

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Section 1 – Introduction to Cryptographic Spike Theory

1.0 – Brief Introduction to Cryptographic Spike Theory

Many investors in this day age have begun turning to the cryptocurrency [1] market due to the recent rise in the top cryptocurrency known as the Bitcoin [2], which is also ironically the very first successfully conceived and released type of virtual currency. As of Q4 2017 and Q1 2018, the value of Bitcoin has risen higher than it has ever been in the history of its existence; this has certainly caught the attention of both existing and new potential investors. Higgins: It was a year that arguably exceeded last year's bullish predictions and one that saw unprecedented interest coming from places – particularly in the finance industry – that some may not have imagined possible just 12 months ago. (Higgins) [7]. During this great spike in value, many of the other cryptocurrencies have also been affected by the rise in Bitcoin's value, which ultimately points to the high possibility of these altcoins' [3] values being significantly influenced by both the progression and digression of the bitcoin. With both the recent event and factors in place, I have come to the conclusion that the data gathered from the highest value spike in bitcoin history could be used as a plausible reference in calculating future spikes, hence the wake of Cryptographic Spike Theory.

1.1 – What is Cryptographic Spike Theory

Cryptographic Spike Theory (or CST) is a theory that can be applied when projecting future value of cryptocurrencies. This theory is loosely based on the aforementioned historical Bitcoin value spike of 2017. This theory assumes that there would likely be another similarly large spike at or near the end of each year, effectively affecting many existing cryptocurrencies' values in a positive way (or, an increase in value). By using this spike data in conjunction with a relatively new market that is on a progressive uptrend, the application of CST could prove useful in predicting cryptocurrency prices along with future investment capital gains. CST is not without flaw however, as some of the calculations performed based on the algorithm may very well be inaccurate by varying degrees due to the pure volatility of this type of market despite the countermeasures that this theory employs in attempt to produce the most accurate results possible. It should be noted that CST is still inherently nothing more than a theory, and should not be used to explicitly dictate the actions of investors.

1.2 – Cryptographic Spike Theory Algorithm

1.2.1 – Figure 1.0 – Bitcoin Chart

CST uses very simple algorithms to calculate projections based on the historic Bitcoin spike that occurred in late 2017-early 2018. CST takes the percentage spike increase of a cryptocurrency (in Figure 1.0, Bitcoin is the cryptocurrency being used) from the lowest wick (lowest point of spike) to the highest wick (highest point of spike) of the given largest spike, and then applies it to the algorithm. Since this is historical data representing the previous year's largest spike, the outcome of the calculations should theoretically remain somewhat consistent with the only outlying factor between different cryptocurrencies being their respective largest spikes.

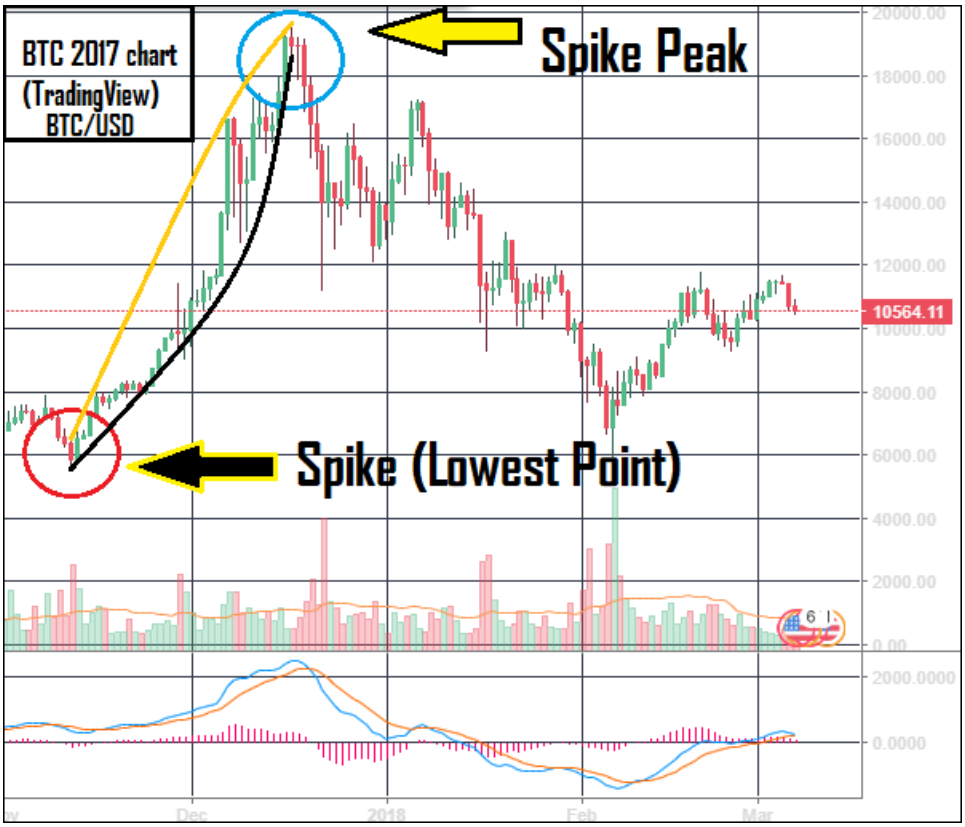

Figure 1.0 – Bitcoin Chart

1.2.2 – CST Algorithm Overview

There are three algorithms which are applied to Cryptographic Spike Theory in order to produce results. These algorithms all fit into their own specific category, or region – Minimal, Reliable, and Maximum. The Minimal algorithm is used for calculating the percentile increase of the largest spike of the previous year, the Reliable algorithm is used in conjunction with the Minimal algorithm's results, and the Maximum algorithm is a culmination of the results from both Minimal and Reliable algorithms added to a fixed metered percentile increase to the spike data results; this percentile increase assumes that a cryptocurrency's value will increase by at least 300% within 12 months.

1.2.3 – Figure 1.1 – CST Minimal Algorithm

The CST Minimal Algorithm calculates the Spike Increase Percentage (SIP), and then takes each month into consideration. For each passing month an "Adjustment" penalty is applied depending on the month, which is used to offset a static SIP as time approaches the next projected year-end spike. Finally, this adjustment will then be subtracted from the SIP to get an "Adjusted SIP", which is then multiplied by the current cryptocurrency value and divided by two to get the new projected value.

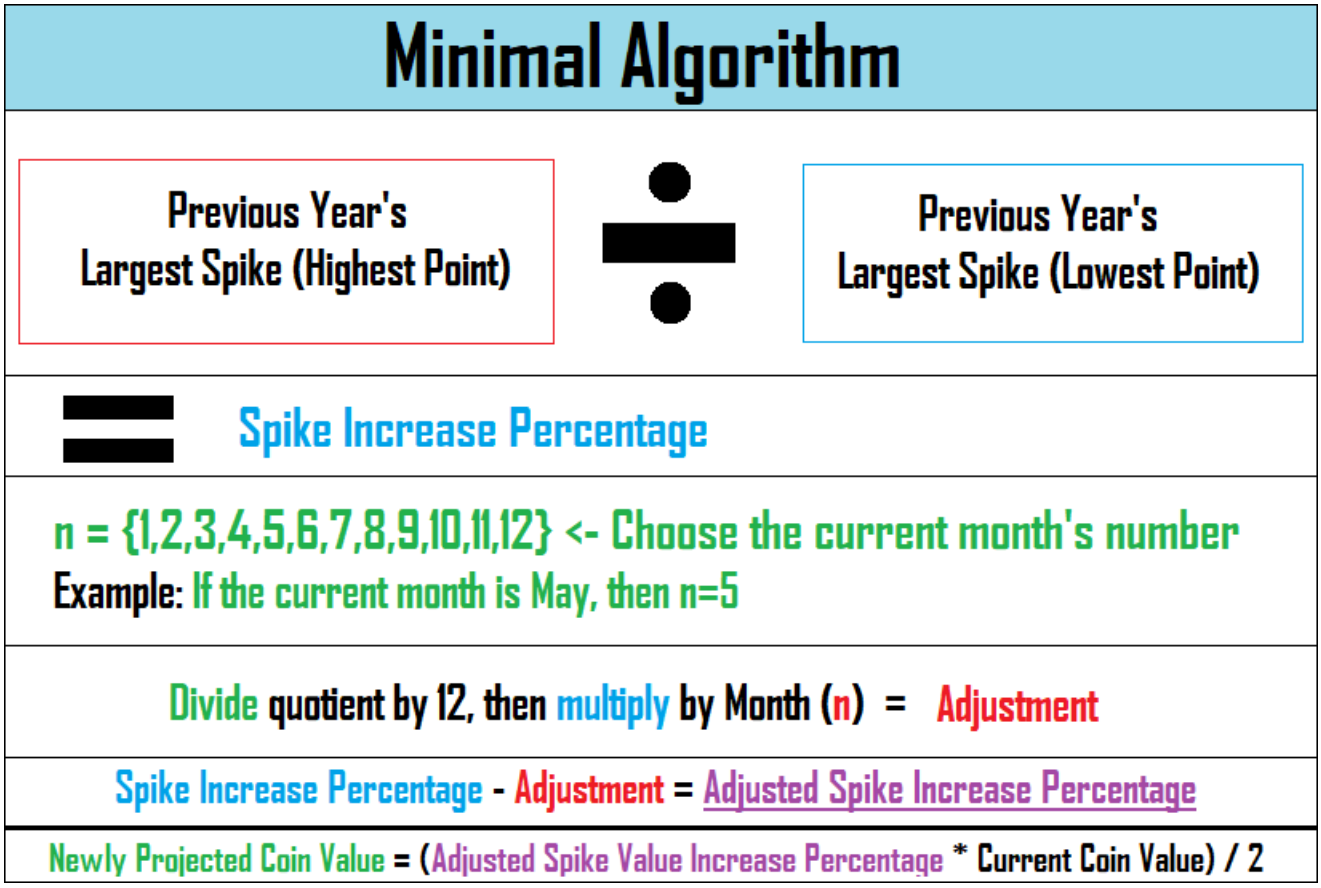

Figure 1.1 – CST Minimal Algorithm

1.2.4 – Figure 1.2 – CST Reliable Algorithm

The CST Reliable Algorithm takes the first day of each month of the previous year and the Adjusted SIP from the Minimal Algorithm into consideration. This algorithm performs a “semi-parallel monthly calculation”, which means that cryptocurrency values of the same month last year will be calculated against the same month of the current year. There is a slight discrepancy however, only the first day of the previous year’s same month’s cryptocurrency value will be calculated against the current same month’s cryptocurrency value no matter if it is the first day of the month or not, hence the semi-parallelism. The algorithm will then divide the current same month’s cryptocurrency value by the previous year’s same month cryptocurrency value, and then divide that amount by eight (to offset overhead) to get a “Monthly Projection Percentage” (MPP). The Adjusted SIP should be added with the MPP, and then multiplied by the current cryptocurrency price, and then finally divided by two to get the newly projected value.

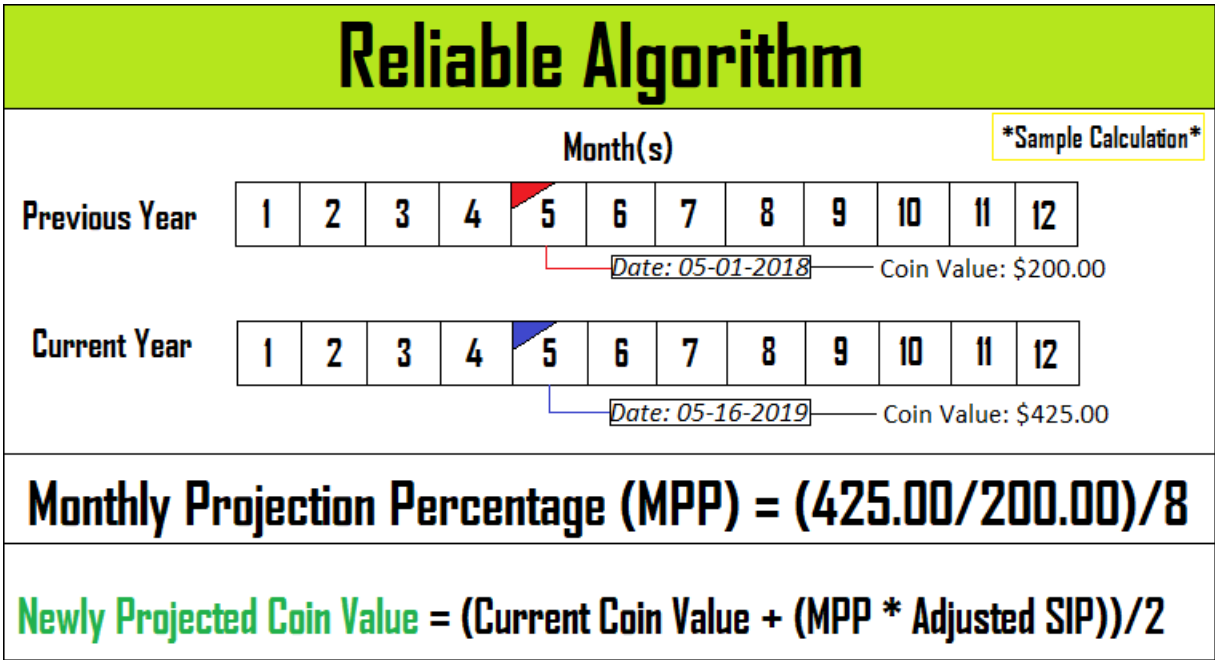

Figure 1.2 – CST Reliable Algorithm

1.2.5 – Figure 1.3 – CST Maximum Algorithm

The CST Maximum Algorithm is perhaps the simplest of the three algorithms, as it need only add a three-hundred percentile increase to a portion of the Reliable Algorithm's calculations as shown below in Figure 1.3. This algorithm assumes that the value of the cryptocurrency has eclipsed by at least three-hundred percent within a ten month period (that's a 30% percent monthly average) since the previous year's largest spike. This favorable yet metered algorithm is a safe way to increase prediction accuracy in lieu of heightening expectations to inaccurate extremes.

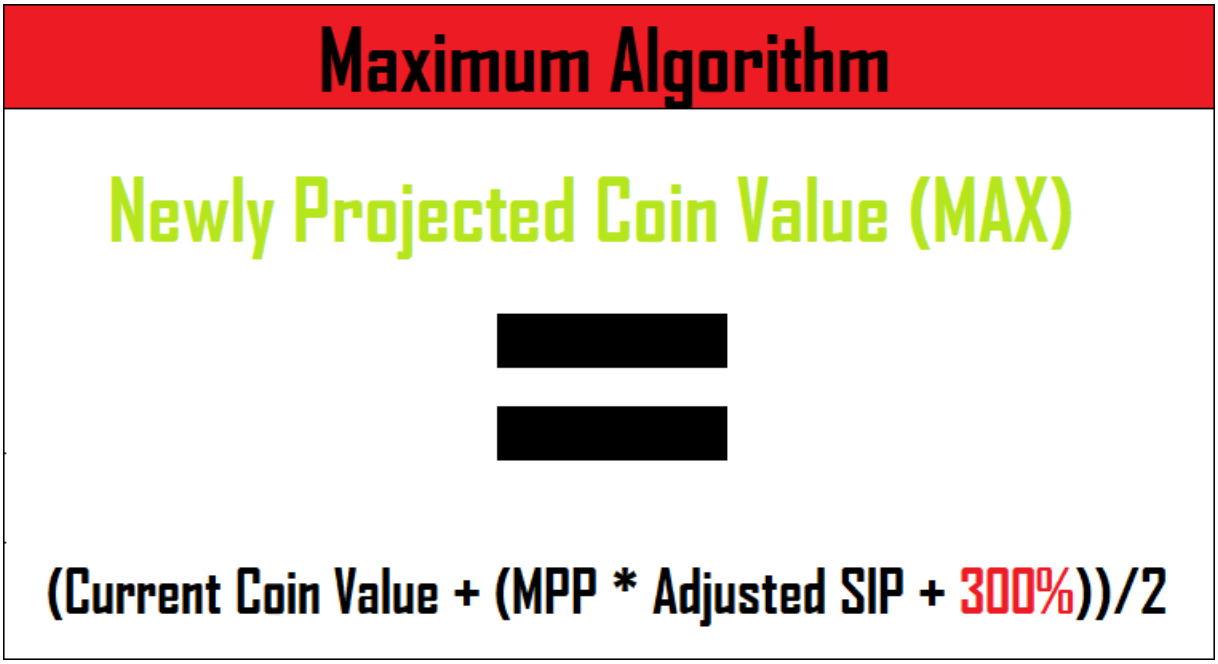

Figure 1.3 – CST Maximum Algorithm

Section 2 – Cryptographic Spike Theory Calculation Tool

2.0 – What is the Cryptographic Spike Theory (CST) Calculation Tool?

The Cryptographic Spike Theory Calculation Tool is a tool created and designed to expedite the process of applying Cryptographic Spike Theory (CST) for general users. Instead of the user having to manually use CST algorithms to calculate and generate results, this tool will perform all necessary algorithmic calculations automatically, hence making it the most convenient and concise means of applying CST for users. The beauty of this tool is its malleability in terms of gauging the scope of how calculations are made; this can be seen in two of the required inputs, which are the "Spike (Low Point) Price (USD)" and "Spike (Peak) Price (USD)". These are two of the four required inputs that the user must fill in with data, however, that data does not have to be approximate – it can be either estimation-based or as accurate as possible (depending on their data source(s)/chart(s)), meaning that users can input the low and high points of the spike that they feel best represents the fluctuation of the next possible year-end spike, after all, the cryptocurrency market is ideally volatile in nature. This type of flexibility also makes results more varied between different users. This CST tool currently does not support all cryptocurrencies, however, more cryptocurrency support will be added in future updates.

2.1 – How to use the Cryptographic Spike Theory (CST) Calculation Tool?

Using the Cryptographic Spike Theory Calculation Tool is very simple, as the user only need to input four pieces of data into the system, and they are: 1) Current Coin/Token Price (USD), 2) Spike (Low Point) Price (USD), 3) Spike (Peak) Price (USD), 4) Coin/Token Investment Quantity. Once the data inputs are filled appropriately (no commas, alphabetical characters, or "$" signs allowed; only positive floating point [4] and/or integer values [5] are allowed), the user should then press the "Calculate" button. All results will be displayed on the lower section of the page under their respective "Algorithmic Regions" – Minimal Region, Reliable Region, and Maximum Region. These regions are solely based on the Minimal, Reliable, and Maximum CST algorithms. Among the results, there will also be a "Calculation Date Time Stamp" produced at the time of the calculation for users to keep for their records. If the user wishes to clear all calculations made, then the "Clear All" button should be pressed; after the button is pressed, new calculations can be made.

Briefly touching upon the Spike (Low Point) Price (USD) and Spike (Peak) Price (USD) data, for the former, the user should input the price of the previous year's (or current year's previous) [whichever is larger] cryptocurrency price that was located at or near the base of the largest spike that occurred at that time. For the latter, the user should input the price of the previous year's (or current year's previous) [whichever is larger] cryptocurrency price that was located at or near the peak (or highest point) of the largest spike that occurred at that time. Note that these values will not be the exact same for all users due to various different data sources being used by varying degrees of users.

Section 3 – Conclusion

In conclusion, Cryptographic Spike Theory (CST) came into fruition thanks to the historical Bitcoin spike of Q4 2017, and it aims to harbor a perpetual means of reliable information based on the algorithms employed. It is a well-known fact that there are no sure-fire means of predicting what will happen in the future, especially in a volatile market such as the cryptocurrency market, however, through theory, predictions can be more accurate – CST is such a theory. With imperfect, yet sufficient algorithms in place as well as a very useful utility, investors could use CST to their advantage by combining their knowledge with the outcomes provided by this theory. As of today, the cryptocurrency market has and is still gaining more attention than ever before, and as a result, the market's overall potential to grow has increased exponentially with establishments both old and new looking into the blockchain [6] technology behind most of these cryptocurrencies in order to effectively improve their business operations. Not only do businesses have their eyes on cryptocurrency, but so does the general consumers that are being exposed more and more to this type of market, after all, with such a massive spike in cryptocurrency, the potential return on investment for people all around the world has become alarmingly eye-opening. The early bird may get the worm, but the bird that has tracked the worm since it began to move will stand on the ground triumphant and full-bellied as it watches the others scrounge the earth.

Section 4 – References and Works Cited

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