DELPHI DIGITAL

Monthly Bitcoin Outlook
July 2019

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Short-Term Outlook

Bitcoin remains one of the best performing assets globally this year, outpacing both safe havens and risk assets alike. Its roughly 8% gain since the start of the second quarter is in line with the median return between 2012-2018 over the same period (8.5%). Interestingly, the median and average return for BTC in the second half of the year is 67% and 201%, respectively, since 2012. Even excluding the parabolic run ups of 2013 and 2017, the average 2H return is almost 25%, which would imply a BTC price just under $13,500. Technical indicators are a bit mixed, but overall the outlook for bitcoin through year-end remains favorable.

Exchange Flows Precede Selling

Tracking inflows to exchanges shows how the two biggest days of flow to exchanges came as price peaked around the 10th. Prices fell immediately afterwards.

UXTO Adjusted Network Value to Transaction Signal (NVTS)

Our UTXO adjusted variation of the NVT Signal, which is intended to adjust for the upward bias of these metrics, suggests BTC is no longer oversold.

Macro Backdrop

Bitcoin Thrives as Geopolitical Risks Escalate Amid Slowing Global Economy

As the world becomes more polarized and cross-border relationships break down, investors are likely to bid up demand for non-sovereign, uncorrelated assets that are not as affected by trade wars or protectionist policies. Tack on falling yields across the curve in major sovereign debt markets and the macro picture looks primed for BTC to thrive. Although bitcoin still maintains little to no correlation with traditional assets over longer time horizons (i.e. 3-5 years), there's a good chance BTC's relationship with more liquid asset classes will tighten as institutional participation grows.

We will delve into each section individually while providing the necessary data analysis to support our opinions. It is important to note that investing in Bitcoin is risky and any decision made should be evaluated in the context of an individual investor's capability and appetite to take risk.

Prelude to UTXO Analysis

This section of the report serves as the most recent update of the UTXO Analysis from the short term outlook we provided within "The State of Bitcoin". We utilize this analysis to identify when selling pressures will likely wane to forecast the timing of upcoming market cycles. Below you can find the key takeaways we provide rationale and support for throughout this packet.

Function of UTXOs In Our Analysis

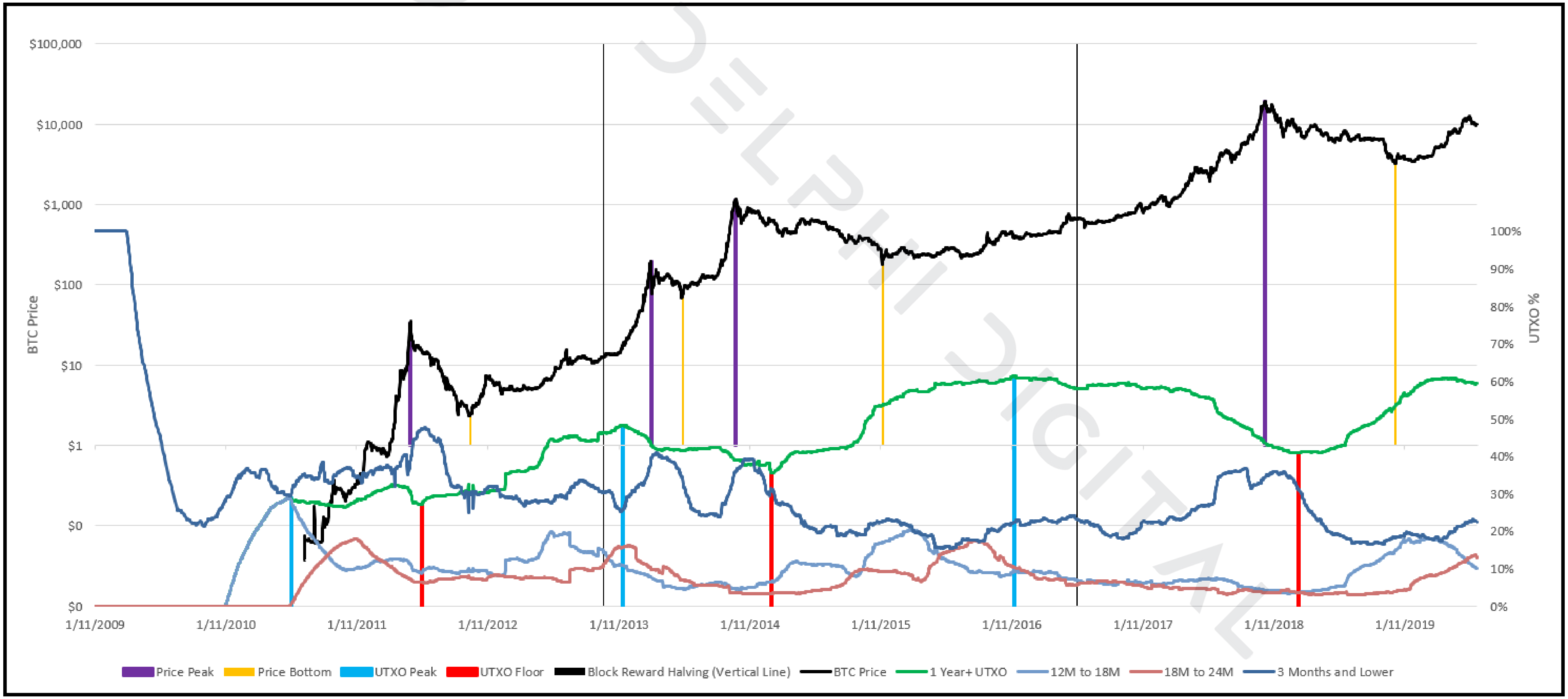
UTXO stands for the unspent transaction output from bitcoin transactions. Every transaction creates a new UTXO, and the age of the UTXO indicates the block that it was first included in. In other words, the UTXO age indicates the last time bitcoin was moved. Analyzing Bitcoin's aggregate UTXO age distribution over time provides insight into the buying and selling patterns of previous market cycles. This allows us to forecast where we are in relation to prior cycles and what we can likely expect going forward.

Adjustment Overview

In our first refresh of the UTXO analysis we had to adjust for a hiccup caused by Coinbase, through no fault of their own, which we further expand on below. Our analysis will permanently incorporate this adjustment to ensure the consistency over time. In early December 2018 there were several concerns surrounding the intentions of a large holder that was moving 856,000 bitcoin, a valid concern given this was ~5% of the total circulating supply. It turns out this large holder was likely Coinbase, based on a handful of factors, one of which being a scheduled maintenance announcement they issued on November 29th. Coinbase indicated the maintenance may cause movement on all Coinbase-supported blockchains over the next seven days. The issue is that a large portion of this movement came from UTXOs that haven't been moved in at least 1 year, with a concentration in UTXOs that haven't moved in 3-5 years, which would distort our aggregate analysis if left unadjusted. However, we were able to adjust for most of the shift, allowing the analysis to continue to function in its intended form. Another silver lining of the maintenance driven UTXO shift is that lost coins will make up a larger percent of the 5 year+ band, making the analysis more accurate in the long run.

UTXO Analysis & Market Cycles

Despite July being a fairly tumultuous month with prices going from ~13k to ~9k in one week, **we didn't see significant movement in the underlying holder base**. Long term holders continue to hold while the short term holders are the ones moving in and out of positions. The oldest age band of holders to see noticeable selling in July was the 12-18 month group, with selling from any older holders being nonexistent. The largest amount of selling actually came from **1-3 month holders**, which ended up being well timed as it took place between July 10th and 11th when Bitcoin's price breached the $13,000 level. The overall structure of the holder base continues to progress as expected in this portion of the cycle while volume continues to be dominated by short term traders.



Data as of July 31th, 2019

Sources: Unchained Capital

Exchange Flows Precede Selloff

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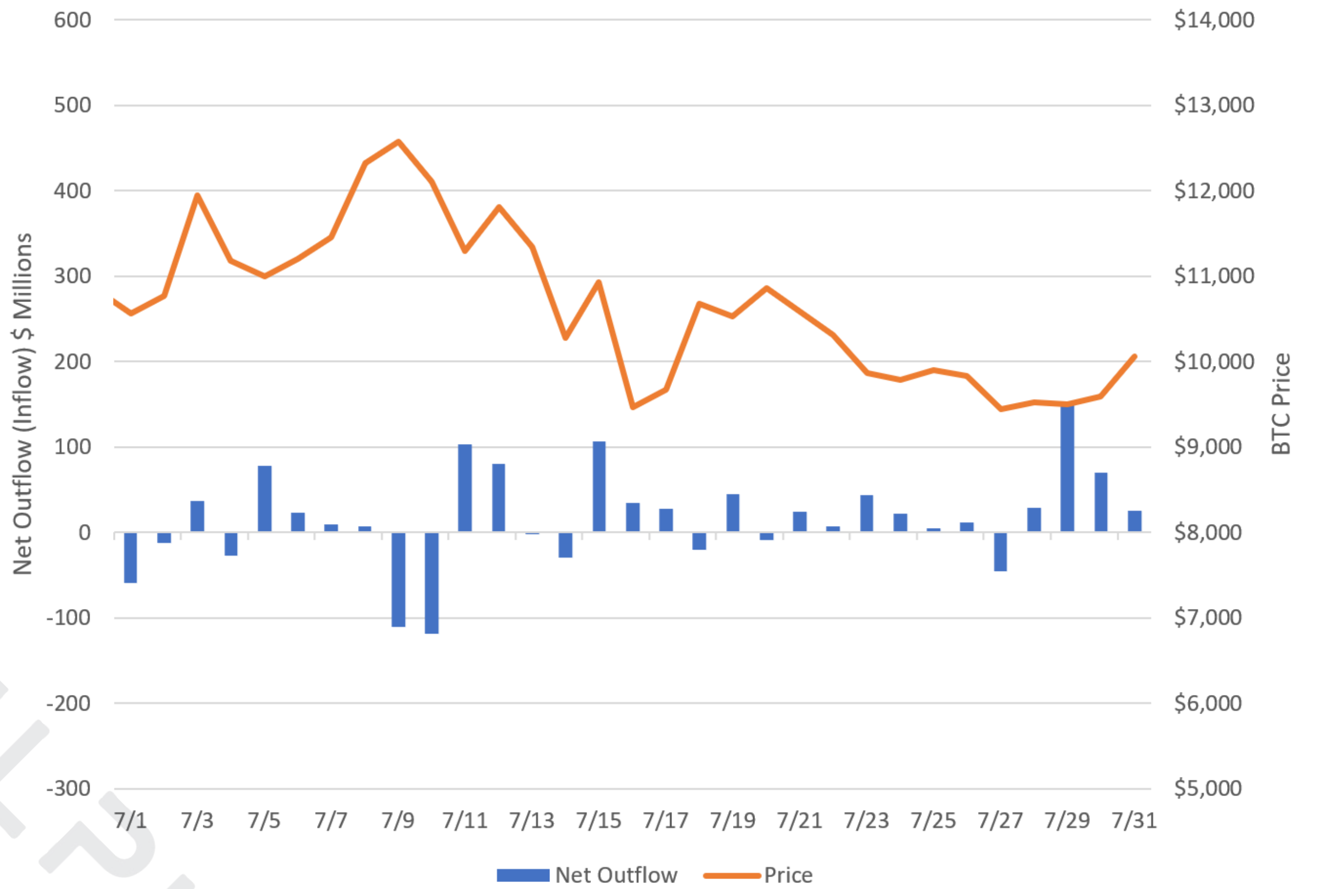
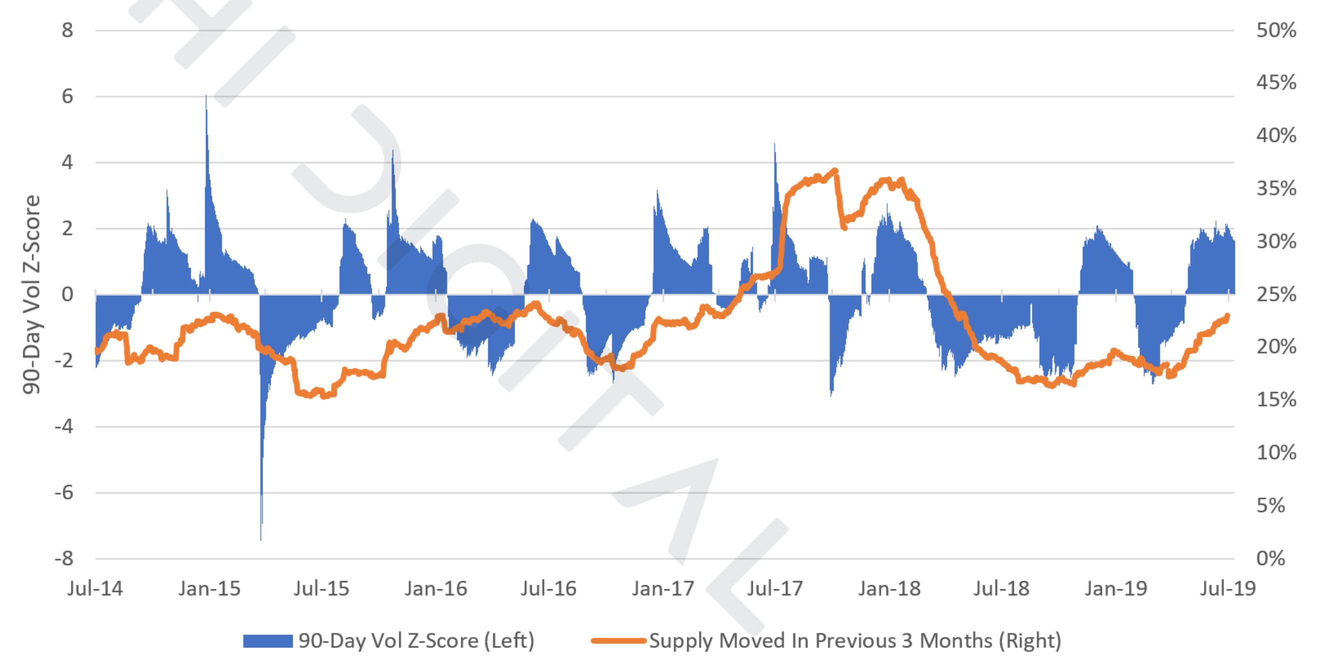
The sizable selling by 1 to 3 month holders during the rally earlier in July was visible through exchange flows. Plotting daily net inflows and outflows relative to price shows how the **two biggest days of flow to exchanges, presumably to sell, took place when prices peaked around the 10th**. These flows can often function as indicators for potential sell pressure, especially when tracked on an intraday basis. Even on daily basis, they can serve as leading indicators based on the size of the inflow, as seen on the right.

In last months outlook we touched on the increase in active supply (coins that moved in the past 3 months) and it appears to be topping temporarily. **These spikes in liquid supply typically occur either during market cycle tops or during periods of significant volatility, as that's when you typically see the most trading occurring.** This relationship between volatility and liquid supply is depicted in the chart on the right where we overlay liquid supply with the Z-Score of 90-day historical volatility.

There's a consistent decrease in liquid supply when volatility is low and uptick in liquid supply volatility picks up. Although this relationship is generally cycle agnostic, the magnitude of the shift in coins is definitely a function of the stage of the current cycle. This is evident by comparing the rise in liquid supply in the summer of 2016, which is very comparable to the current overall composition of holders, to the uptick during the recent cycle high at the end of 2017. **This reinforces the idea that we're far from a price top because the liquid supply increase isn't nearly large enough to represent substantial selling from a large portion of the holder base.**





Data as of July 31th, 2019

Sources: Token Analyst, Unchained Capital

UTXO Adjusted NVTS

On-chain volume has continued to pick up over the past several months, with July having the most monthly volume YTD. This has brought UTXO adjusted NVTS down to **15.8**. We adjust the standard NVTS measure (BTC market cap/90 day MA of on-chain volume) to only capture the liquid supply (supply that's moved in the past 3 months) in the numerator because we think that's more reflective of the portion of the network being used to facilitate on-chain volume. It's definitely healthy to see on-chain volume pick up, bringing the multiple lower, especially as we continue to believe these metrics will naturally skew higher.

Results From Buying Between 14.8 and 16.8 UTXO Adjusted NVTS

90 Day NVT	30 Day	60 Day	90 Day	180 Day	1 Year
Median Return	-11%	-13%	-17%	-34%	-9%
Mean Return	2%	17%	54%	51%	14%
Success Rate	26%	48%	41%	38%	46%
Instances	144	142	136	128	122

Risk Adjusted Comparison of Entering Between 14.8 and 16.8 vs Random

90 Day MA NVT	30 Day	60 Day	90 Day	180 Day	1 Year
Sortino (Cuurent)	0.1	0.5	0.4	0.4	0.3
Sortino (Random Entry)	1.1	1.8	2.4	3.2	6.8
Sharpe (Current)	0.05	0.25	0.37	0.34	0.18
Sharpe (Random Entry)	0.27	0.32	0.39	0.51	0.56
Decline Frequency (Current)	74%	52%	59%	63%	54%
Decline Frequency (Random Entry)	42%	40%	41%	41%	31%
Average Decline (Current)	-16%	-28%	-27%	-41%	-41%
Average Decline (Random Entry)	-14%	-20%	-24%	-33%	-51%

We also take a look at a few return and risk adjusted return measures to provide context and expectations for entry levels. Based on the negative medians across all time frames, **entries at these adjusted NVTS levels haven't produced consistently strong results on a pure returns basis. Risk adjusted returns have also underperformed a completely arbitrary entry across nearly all time frames and measures.** While this can be off-putting at first, it's important to keep in mind that a decent amount of the data points in this return sample were from late 2013 and late 2014, the period that preceded a long lull in Bitcoin's price. This implies many of these returns will be pretty negatively skewed.

Data as of July 31th, 2019

Sources: Unchained Capital, Coinmetrics.io

July Pullback

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Bitcoin remains one of the best performing assets globally this year, outpacing both safe havens and risk assets alike. It did see a bit of a pullback in July following five consecutive months of positive returns, which saw BTC catapult to within striking distance of $14,000. **But prices can't turn parabolic indefinitely, so a period of price consolidation was bound to happen at some point.** Interestingly, July was one of the only positive months for bitcoin in 2018, but the quick pop was short-lived. August is off to a strong start, but its *limited* historical hit rate isn't the best.

BTC Month-Over-Month Return Heatmap

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	-9.9%	10.4%	6.7%	27.8%	63.1%	26.6%	-7.2%	16.8%				
2018	-21.6%	5.7%	-35.5%	36.8%	-21.4%	-16.1%	31.7%	-14.8%	-5.3%	-4.1%	-32.3%	-9.8%
2017	-4.1%	28.2%	-13.0%	28.8%	65.5%	16.1%	8.8%	64.9%	-8.5%	47.2%	61.6%	30.2%
2016	-11.2%	14.3%	-4.0%	9.6%	17.4%	19.9%	2.3%	-11.8%	4.9%	16.0%	4.8%	30.5%
2015	-27.2%	12.0%	-2.4%	-8.8%	3.3%	10.3%	11.9%	-20.4%	3.3%	38.8%	13.1%	14.7%
2014	7.6%	-29.2%	-20.3%	-3.3%	37.8%	-2.1%	-5.8%	-11.4%	-25.2%	-8.3%	8.8%	-17.2%
2013	51.1%	63.5%	178.7%	54.8%	-10.6%	-26.2%	13.6%	23.3%	3.1%	45.7%	465.2%	-32.7%
Avg. (2013-18)	***-0.9%***	***15.8%***	***17.2%***	***19.6%***	***15.3%***	***0.3%***	***10.4%***	***5.0%***	***-4.6%***	***22.6%***	***86.9%***	***2.6%***
Median (2013-18)	***-7.7%***	***13.2%***	***-8.5%***	***19.2%***	***10.3%***	***4.1%***	***10.4%***	***-11.6%***	***-1.1%***	***27.4%***	***11.0%***	***2.4%***

Data as of August 6th, 2019
Source: Coinmetrics.io

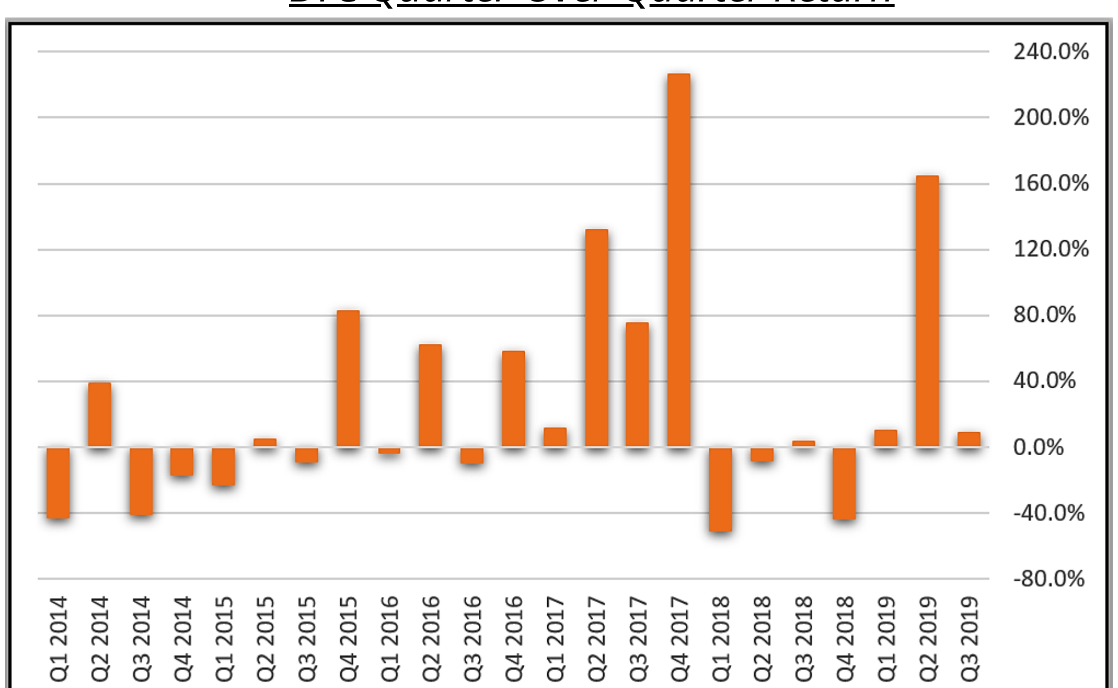
Bitcoin Bounces Back

After hitting its 2019 peak in late June, BTC experienced a +30% drawdown in just a few short weeks, **falling within 1% of $9,000.** Bitcoin retested these levels again in the final days of July before ripping back above $11,000 in a matter of days. Its longer-term uptrend is still intact as BTC attempts to breakout of a shorter-term downtrend after this double bottom.

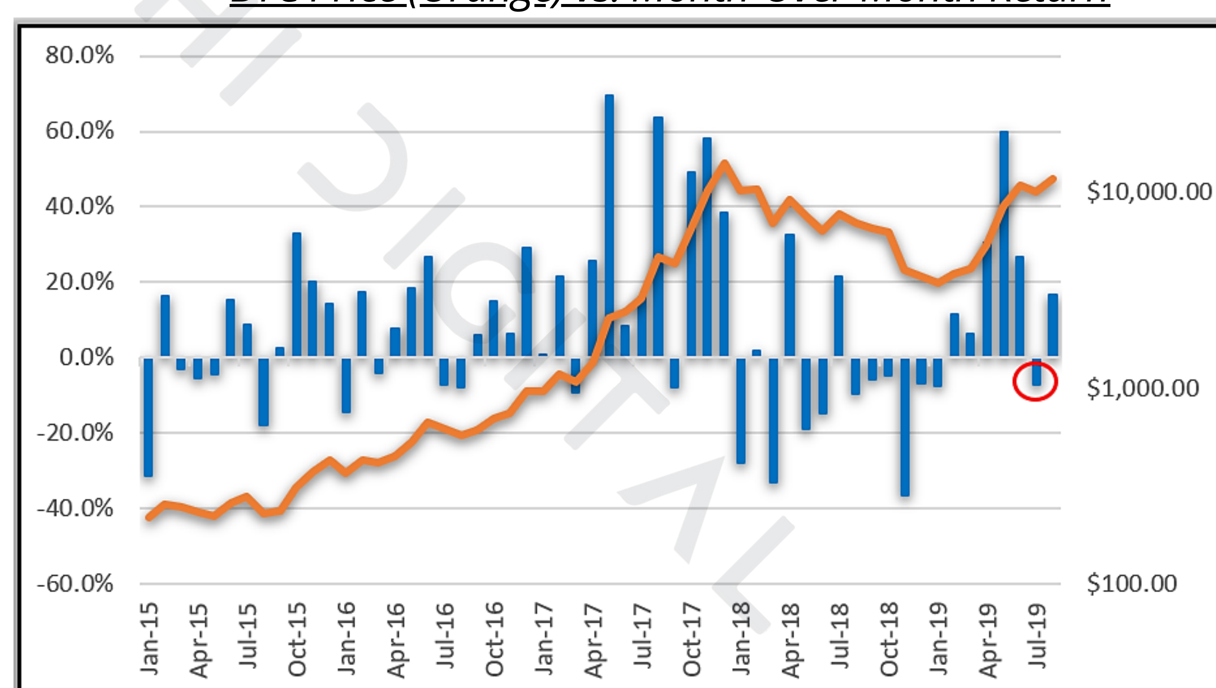
Despite July's modest decline, bitcoin is still positive for the quarter, **driven by its 25% rally over the last week.** This comes on the coattails of BTC's best quarter since the end of 2017, which breathed new life into the crypto market. A few key technical indicators have also turned bullish, which we'll discuss in shortly.

Bitcoin's Rapid Rise and Fall

BTC Quarter-Over-Quarter Return



BTC Price (Orange) vs. Month-Over-Month Return



Data as of August 6th, 2019

Source: Coinmetrics.io, Coinbase, TradingView

Historical 2H Performance

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Bitcoin has gained roughly 8% since the start of the second quarter, in line with the median return between 2012-2018 over the same period (8.5%). The average return, however, is closer to 16%, in large part due to 2012's +60% start to Q2 (the average drops to 7.6% if we include just 2013-2018).

More importantly, the median and average return for BTC in the second half of the year is 67% and 201%, respectively, since 2012. Once again, the average is largely skewed by the parabolic price run ups in 2013 and 2017, but even excluding these outliers the average 2H return is almost 25%, implying a BTC price just under $13,500.

BTC Performance YTD vs. Prior Years (Normalized)

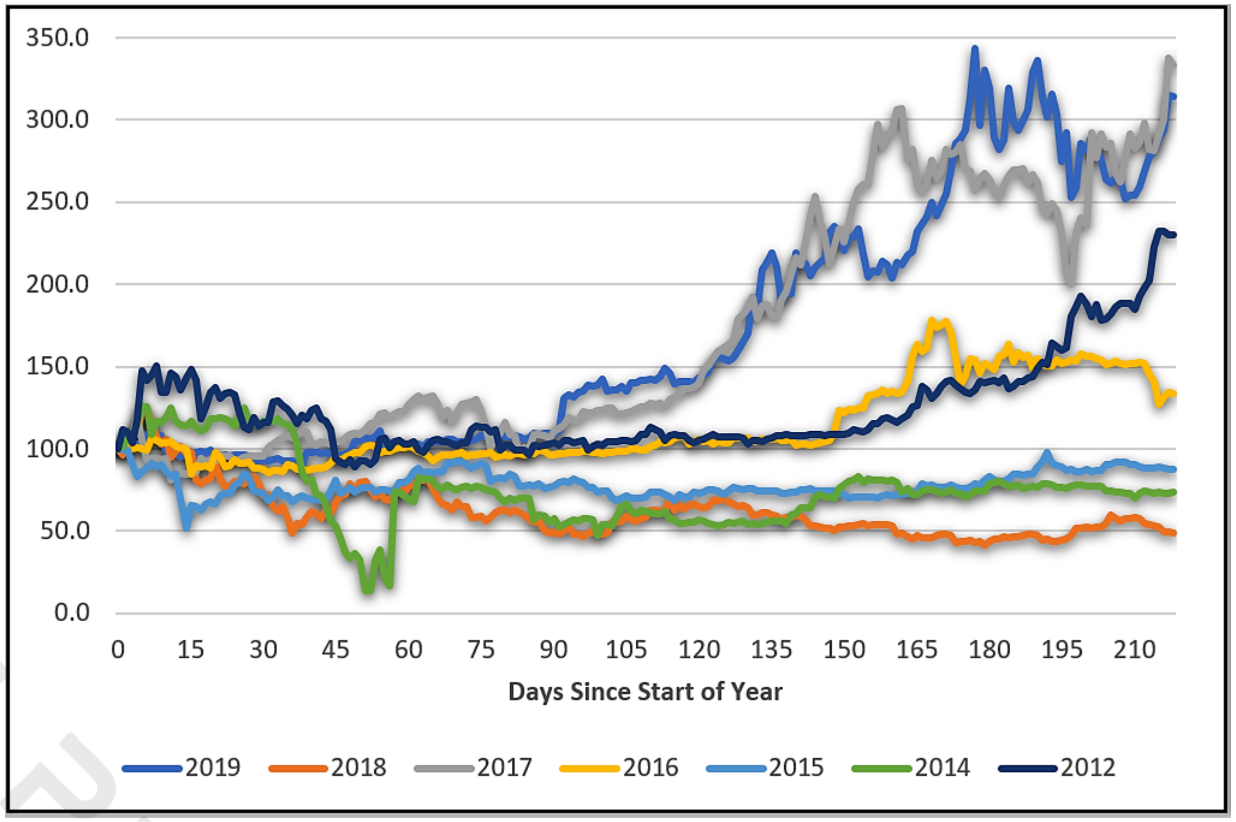
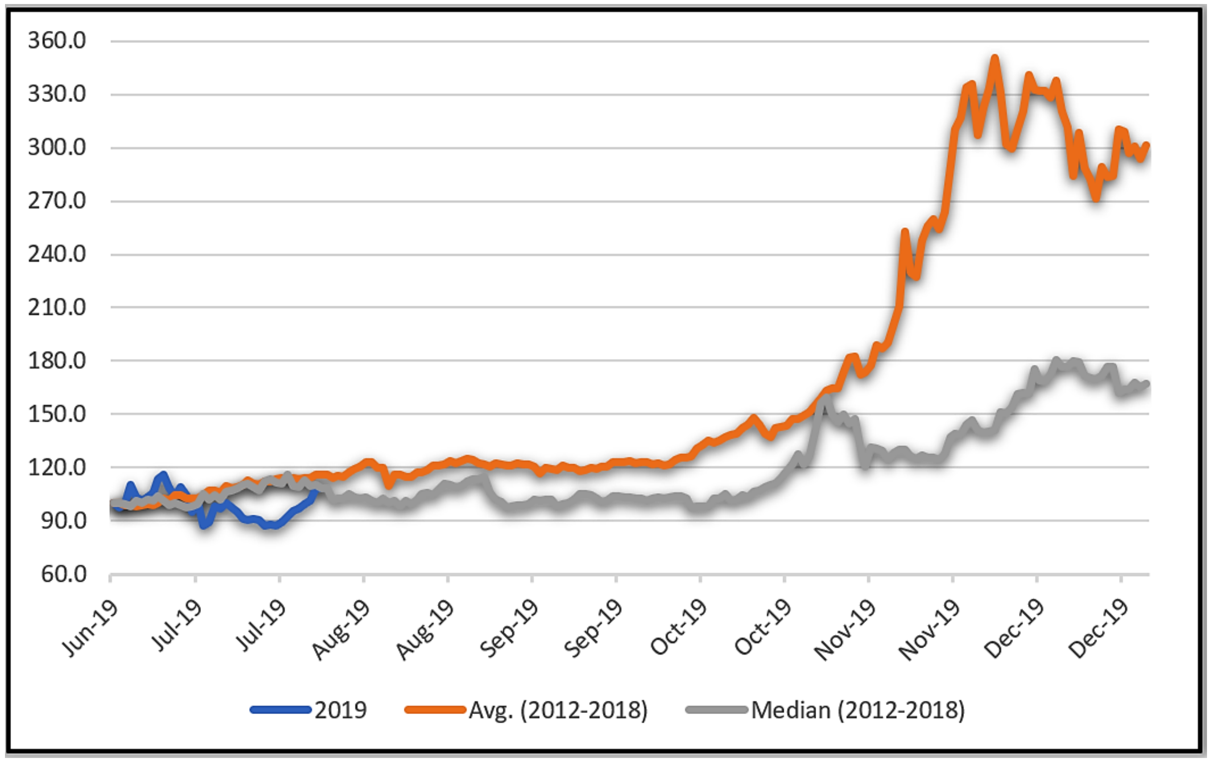


**Chart excludes 2013 for illustrative purposes*

BTC Jul-Dec. Performance vs. History (Normalized)



A significant portion of bitcoin's historical gains have come in the final three months of the year. As shown in the monthly returns heatmap, October, November, and December have yielded some of the largest gains, especially the autumn months.

Bitcoin's median and average Q4 return is 58% and 112%, respectively, since 2012. **Excluding 2018's dramatic correction and the parabolic moves in both late 2013 and 2017, the average return is still 33% over the period.**

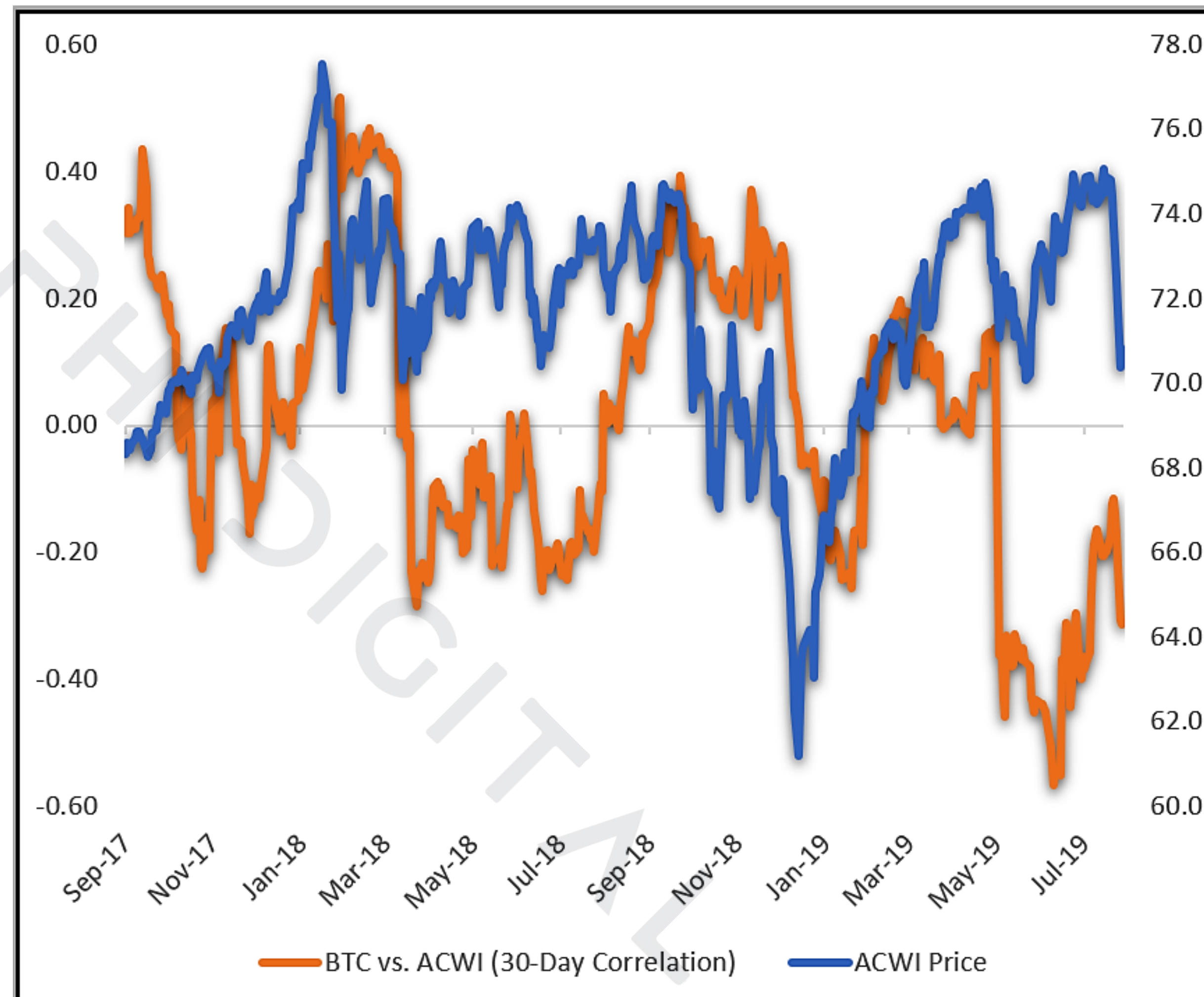
Data as of August 6th, 2019
Source: Coinmetrics.io

Bitcoin vs. Gold Correlation Rises

The trading dynamic between bitcoin and conventional assets appears to be shifting as BTC continues to trade much more in line with gold than riskier asset classes. We've covered the differences between "digital gold" and its physical counterpart in depth, but some of their overlapping characteristics help explain, at least in part, their recent performance. **As the world becomes more polarized and cross-border relationships break down, investors are likely to bid up demand for non-sovereign, uncorrelated assets that are not as affected by trade wars or protectionist policies.** We're beginning to see this play out in front of us with the most recent round of trade spats between the U.S. and China, the effects of which are already showing up in earnings calls and disappointing guidance numbers from corporate executives. **Bitcoin still maintains little to no correlation with traditional assets over longer time horizons (i.e. 3-5 years), but as institutional participation grows, there's a good chance so too will BTC's relationship with more liquid asset classes.**

BTC vs. Gold Correlation

BTC vs. All Country World Index Correlation



Data as of August 6th, 2019

Source: Coinmetrics.io, Federal Reserve of St. Louis, MSCI

Favorable Macro Backdrop

“Digital gold” has outperformed both safe havens and riskier assets by a significant margin since the last week in July as the global macro backdrop for bitcoin strengthens. First and foremost, the most influential central banks in the world have all shifted away from tighter monetary policies as expectations for growth and inflation decline. **The U.S. 10-year breakeven inflation rate has dropped to its lowest level in almost three years, dragging U.S. Treasury yields down with it. The sharp drop in real yields is supportive of non-income producing assets like bitcoin and gold given lower opportunity costs of holding each.**

Simultaneously, China appears to be gearing up for a potential currency war as trade talks with the U.S. deteriorate, adding pressure on investors with capital tied up in assets exposed to further devaluation of the Chinese yuan. **The PBOC's willingness to let its currency depreciate is now evident following its hands-off approach to the yuan's drop on Monday, which could spark further rate cuts by the Fed to keep the dollar in check.** Tack on the European Central Bank's (ECB) "do whatever it takes" approach plus the possible revamping of its asset purchase program and it becomes increasingly apparent the risk of broad-based currency devaluation is rising.

BTC Price vs. USDCNY

BTC Price vs. Inverted 2-Year Yield

Data as of August 6th, 2019

Source: Coinbase, TradingView, TVC

Key Technicals

In our last report, we noted the growing divergence in momentum prior to bitcoin's late June parabolic move. The fresh year-to-date high for BTC also coincided with a higher high on the 14-day RSI, which typically helps confirm price as momentum strengthens. The short-term momentum indicator has trended lower for much of the last month, however. Even with BTC's most recent jump, we're waiting for a break above 70 to provide some confirmation on the sustainability of its move.

On the other hand, the recent bullish crossover in bitcoin's daily moving average convergence divergence (MACD) is lending some support to bitcoin's recent move higher. **This is the first bullish crossover we've seen since mid-June, which preceded a +40% move in BTC over the subsequent two weeks.**

<ins>*BTC vs. 50, 100, 200-Day MAs*</ins>

<ins>*BTC vs. Daily MACD*</ins>

<ins>*BTC vs. 14-Day RSI*</ins>

Data as of August 6th, 2019

Source: Coinbase, TradingView

Disclosures

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