Transitioning From Speculation

- Bitcoin's price is still elevated vs. volume, volatility and shorts
- Bitcoin's short base declines into danger zone
- Most crypto fundamental indicators point lower
- The "hard fork," Bitcoin Cash, represents the unlimited-supply overhang to prices

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Note - Click on graphics to get to the Bloomberg terminal

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BI COMD (the commodity dashboard)

Most data as of Nov. 6

Performance: Bloomberg Galaxy Crypto Index (BGCI),

October -12.2%, YTD -68.8% (to Nov. 6).

Bitcoin: October -5.1%, YTD -52.9% (to Nov. 6)

Shaking Speculative Vibe Takes Time, But Is Happening in Bitcoin

(Bloomberg Intelligence) -- The focus of Bitcoin and other "cryptos" in the next decade will turn from price speculation to their intended use as proper peer-to-peer global digital currencies, in our view. Declining volatility and the proliferation of "stable coins" this year is part of a transition process that's unlikely to end soon. Most supply, demand and market-price indicators remain negative for what remain highly speculative cryptographic assets. The "hard fork," Bitcoin Cash, represents the unlimited-supply overhang to prices.

Prospects for institutional inflows and ETFs remain the hope of "hodlers," slang for crypto holders. Yet macroeconomic drivers are unfavorable. In China, demand is banned, but crypto mining elevates the supply. Global quantitative easing is reversing, with the dollar providing more than a 2% positive carry. The Bloomberg Galaxy Crypto Index declined 12.2% in October -- to November 6, the 2018 loss is 68.8%.

Bitcoin Technical Indicators

Bitcoin's Price Still Elevated vs. Volume, Volatility and Shorts. The price of a Bitcoin is elevated relative to downtrends in volume, volatility and short positions. Many of the more-technical measures of the first-born crypto remain unfavorable. Volatility should reach new lows as Bitcoin gravitates toward its mean. Volume measures equate to a price that's about half of current levels.

Price Should About 50% Lower, Based on Volume. Bitcoin should be worth half its recent value, based on volume trends and historical pricing. The 30-day

averages of estimated dollar-transaction value from Blockchain.com and Bitcoin-equivalent volume from Nomics both show levels last linked with a price of about \$3,000. The price of highly speculative Bitcoin correlates strongly with volume trends. In February 2015, the Nomics volume measure broke a downtrend as prices reached the low of the correction. Four months later, estimated dollar-transaction value bottomed.

Price Appears Quite Elevated to Volume



Both volume gauges indicate little sign of recovery. Nomics measures exchange-traded volume in Bitcoin equivalents. Blockchain.com's tracker is "similar to the total output volume, with the addition of an algorithm which attempts to remove change from the total value."

History Indicates Bitcoin Price Is Elevated. Bitcoin volatility should reach new lows as the price gravitates toward its mean, in our view. The bottom of the 2014-15 bear market occurred at the continuous mean as 180-day volatility reached new lows. Mean reversion and declining volatility are the predominant trends. Normal maturation, more vehicles for trading and investing (futures, OTC), increasing participation and competition should suppress volatility. The previous low occurred near a 40% volatility

reading in October 2015 as Bitcoin embarked on a new bull market with the best month of that year. If Bitcoin holds near \$6,400, the continuous mean will be about \$2,200 a year from now vs. the current \$1,500. In 2011, Bitcoin bottomed about 20% below its mean. The 2013 and 2017 peaks were both 2,700% above the mean.

Bitcoin Nearing Price and Volatility Foundation



Bitcoin's Short Base Declines Into Danger Zone. Our measure of Bitcoin short positions has declined to a level we haven't seen since May, which reduces the potential bid below the market. If recent history is a guide, Bitcoin is at a high risk of further price weakness. The combined measure of daily shorts from TradingView and CME and CBOE futures is about the same level (about 35,000) as the price peak in May. That preceded the 41% decline to the 2018 low. Since the all-time peak in shorts from August, positions have almost halved, yet Bitcoin's price is about the same. The indication is diminishing returns to short covering.





Our measure includes known exchange-traded shorts

and is just an indicator. Over-the-counter positions are potentially much larger, but ultimately often need to be hedged on an exchange.

Continuous Mean Also Good Bitcoin Target Support. Bitcoin has found a comfort zone, though history indicates that its bear-market lows and average price are generally closer. The continuous mean of about \$1,450 (since 2010, when the price was 6 cents) provided good target support in 2011-12 and 2015. Primary price-indicative companions point to continued reversion, including declining volume, volatility, Bitcoin addresses used, an elevated network value-to-transactions ratio and a parabolic supply of tradable coins.

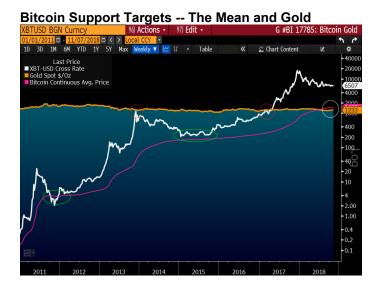
Bitcoin Coming Back to Itself



Bitcoin has returned to its average spread at 4.6x its mean -- 2013's support level on the initial correction. Passing time is favorable. Consolidating in a low-volatility environment is what was lacking for the cryptos' case as peer-to-peer currency. Continuing 2018's trends keeps the most speculative assets on the path toward their intended use.

Bitcoin vs. Support -- Its Mean and Gold. The price of an ounce of gold -- once the resistance level for Bitcoin -- now provides key support, and a potential target. Mean reversion is the trend, though it's unclear just how close the process will take a single Bitcoin to the value of gold. Also underpinning this gold vs. Bitcoin support level is the continuous mean of the cryptocurrency -- about \$1,450. This level is potentially good target-resistance for gold, notably if the dollar resumes 2017's downtrend or the VIX Volatility Index recovers further.

The continuous mean offered good Bitcoin support in the 2011-12 and 2015 corrections, and the recent peak near 2,500% above the mean about matched the 2013 apex. If history is a guide, this increasing level should provide the Bitcoin support area.

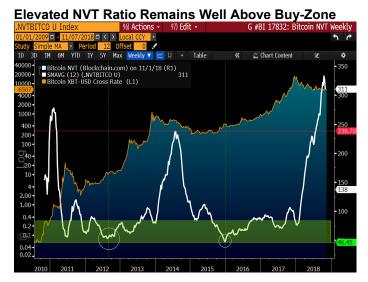


Bitcoin & Broad Fundamentals

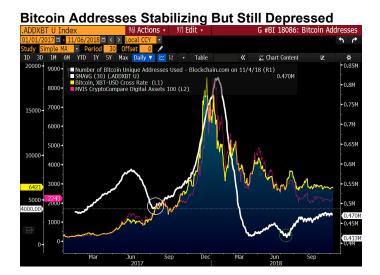
Bitcoin and Cryptocurrency Fundamental Indicators Point Lower. Bitcoin's network value-to-transactions (NVT) ratio is historically elevated, supply remains parabolic, and the number of addresses used -- in a first -- is moribund, below the year-ago trough. Morefundamental market indicators for the cryptocurrency market remain unfavorable. The latest hard fork from Bitcoin Cash represents the problem of unlimited supply.

Bitcoin NVT Ratio Is Far From Typical Bottom. It's an encouraging sign that the Bitcoin NVT reading appears to have finally peaked, but if history is a guide, the gauge has a long way to decline before it indicates good relative value. Still above 300, the 12-week average of Bitcoin's market capitalization divided by estimated transaction value from Blockchain.com needs to decline into the 50-80 range (following such an elevated peak) before prices appear fairly valued.

The bottom in this measure was about 47 (December 2015) as prices began a strong upswing. The ratio dipped below 80 in August that year. Still in its infancy in 2010-12, the ratio was less robust near market-price peaks and troughs. When the ratio consolidates below 80, prices generally recover. July 2014 marked the last apex; prices declined about 70% to the trough in 2015.



Address Level Depressed, But Improving. Indicating improving underlying demand, the number of Bitcoin addresses used has improved yet sits below 2017 levels. A demand proxy, the 30-day average of the number of Bitcoin unique addresses used (from Blockchain.com) is near levels when the price was last about \$4,000. Indicating the extent of the decline, the bottom in average daily addresses from July was the lowest in 18 months. It followed the 2018 low, end-of-day price for Bitcoin (\$5,900) by a few weeks.



In the database since 2010, average addresses used have never declined on a year-over-year basis. The indication is the 67% drawdown in price is insufficient, notably vs. past corrections. In the 2014-15 bear market, the retreat was 84%. At 76%, the MVIS CryptoCompare Digital Assets 100 Index correction appears closer to a potential floor.

Parabolic Supply Likely Needs to Flatline. It's unlikely that cryptocurrency-price declines will stop until there's a sustained period of flat or reduced supply. That's what happened in the last bear market. The current one appears more enduring. Since market prices peaked in December, the measure of tradable cryptocurrencies on Coinmarketcap.com has increased about 60%. In the last bear market, about a year from the peak, this supply gauge flatlined for about six months. Prices began to increase after supply remained unchanged for about a year.

Cryptocurrency Supply Appears too Much for Prices



This measure of supply is simple and may be more psychological, as many of the new cryptos are minor in stature. In any traditional market, parabolic supply should be a price suppressant.

Bitcoin-Transactions Indicator Remains Bearish.

Some combination of increasing Bitcoin transactions or price declines is necessary for a sustained bull-market indication, in our view. At about 30x, the 30-day average of Bitcoin-exchange transactions from Nomics vs. the price is about half the threshold for a bull market, if the 2014-15 bear-market trough is a guide. This indicator began to recover from about 5x early in 2015, peaking toward 250x late that year, notably on increasing transactions. The ratio sustained above 60x until about a year ago, as parabolic prices overwhelmed transactions.

Still up about 15% year-over-year to Oct. 17, Bitcoin's price appears elevated vs. transactions -- the 30-day average is down 8%. Increasing transactions should be on the radar for Bitcoin bulls. A spike occurred on Oct. 15, but appeared to be a one-off event.



Movers Entrenched Trends Down

Dead-Cat-Bounce Risks Prevail, With Bitcoin Cash at Forefront. The bounce in Bitcoin Cash was a primary cryptocurrency theme over the past month, though the bear market should prevail once the newest hard fork begins trading. Declining prices, volatility and stabilization remain prevalent for the top 10 cryptos and show few signs of ending soon.

Bitcoin Cash Hard Fork a Bear-Market Bounce? Our table of top 10 movers signals a trend away from speculative digital assets toward proper cryptocurrencies, as volatility and prices are declining and stable coins are proliferating. Most indicators show this trend is in its early days. The Bitcoin Cash pump-up on speculative buying for the hard fork smacks of a bear-market bounce, in our view. On a month-over-month basis to Nov. 6, Bitcoin Cash is one of the few major cryptos to post a gain. On the table, from Oct. 2-Nov. 6, it's still at a loss.

Movers: Stabilizing, Declining Volatility & Prices

Top Ten Crypocurrencies By Market Capitalization													
	End	of 2017		Nov. 6, 2018									
		Mkt Cap.	% of		Mkt	% of	Mkt. Cap.	1-month	2018				
		\$ Billions	Top 10		Cap. \$B	Top 10	Change 2018	Change	Rank Chg.				
1	Bitcoin	216.3	45.1%	Bitcoin	112.4	63.4%							
2	Ripple	81.2	16.9%	Ethereum	21.0	11.9%	-69%		+1				
3	Ethereum	68.9	14.4%		18.4	10.4%							
4	Bitcoin Cash	40.1	8.4%	Bitcoin Cash	7.6	4.3%	-81%						
5	Cardano	16.7	3.5%	EOS	4.9	2.8%							
6	Litecoin	11.8	2.5%	Stellar	4.3	2.4%	-24%		+3				
7	IOTA	9.2	1.9%		3.1	1.7%							
8	DASH	7.8	1.6%	Tether	1.9	1.1%	37%		+8				
9	Stellar	5.7	1.2%		1.9	1.1%							
10	Monero	5.1	1.1%	Monero	1.7	1.0%	-67%	-9%					
	Total	462.8		Total	175.4		-62%	-7%					
Sources: Bloomberg Intelligence, Coinmarketcap.com. 1-month change is from Oct. 2													

Bitcoin Cash, a hard fork of Bitcoin in July 2017, represents the unlimited supply and speculative nature of cryptos. It was due for a bounce after returning to its inception price near \$400. Following the Nov. 15 hard fork of Bitcoin Cash, the whole sector risks a similar hangover as when EOS went live in June.

High Dead-Cat-Bounce Risk in Bitcoin Cash. Owners of Bitcoin Cash, the most successful hard fork, are generally underwater since stand-alone trading began, which is likely to limit its recovery. Its 50% retracement is likely a bear-market bounce. At about \$600 on Nov. 6, BCH recovered from \$400, the approximate average price from its first 30 days of trading. Representing the fact of unlimited supply vs. the fallacy that only 21 million Bitcoins would ever be mined, BCH is well-below its average price of about \$950 since inception.

Bitcoin Cash Buyers Remain Well Underwater



Bitcoin, Bitcoin Cash and another hard fork to come will mark 63 million of the Bitcoin family that can ever be mined. That's until the next fork. The supply overhang should pressure prices, but the trend toward stable coins represents a proper cryptocurrency future. Tether has come off its high market cap, but remains the Top 10 leader.

Derivatives Appear Supportive

Bitcoin Derivatives, Investment Trust Approaching Price Support. Alternative-access vehicles such as futures and Bitcoin funds, notably Grayscale's Bitcoin Investment Trust (GBTC), show potential price support. Futures volume is improving, but slowly. Institutions restricted from trading Bitcoin have likely moved away from Grayscale's GBTC and toward futures.

Investment Trust Near Net-Asset-Value Floor. A near-zero premium in Grayscale Bitcoin Investment Trust

indicates stabilization in Bitcoin supply and demand, at least in the U.S. GBTC's premium over its underlying net asset value (NAV) is at its lowest since touching zero in March 2017. GBTC only reached this level twice since it began trading. A premium signifies demand outstripping supply, while a decline is indicative of fading interest in Bitcoin. On the other hand, a continued downtrend into a discount would signal greater supply than demand.

Diminishing GBTC Premium Over NAV



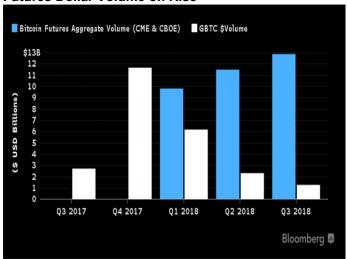
Prior instances of 0% premiums precipitated price surges in Bitcoin. The first instance in 2015 coincided with a breakout from the trough in a bear market. Significantly, the 30-day average of the GBTC premium is approaching the life-of-investment-trust trough from 2017.

Bitcoin Futures Volume Growth Slow and Steady.

The dollar volume of Bitcoin futures increased 31% in 3Q vs. 1Q, with quarter-over-quarter growth rates of 17% in 2Q and 12% in 3Q. This liquidity advance exemplifies the growing adoption of Bitcoin futures by traditional financial institutions and may indicate increasing acceptance as an asset class. At the least it shows that more traders are using futures vs. GBTC. Before futures existed, many funds and institutions were restricted from accessing Bitcoin directly and used GBTC for that purpose.

About \$13 billion in notional contracts exchanged hands in 3Q. That's more volume than GBTC's 4Q17 heyday and comes despite the fact that Bitcoin is almost 70% below its price peak at the end of 2017.

Futures Dollar Volume on Rise



CME Leading the U.S. Bitcoin-Futures Race. The CME is leading CBOE in the race to become the standard for Bitcoin (BTC) futures, when measured by open interest and volume. In open interest, the CME leads by about 10,000 BTC. Its futures are also more heavily traded than CBOE's. Peak trading occurred at the end of July, where almost 300,000 BTC of futures changed hands in CME contracts alone.

Bitcoin Futures Open Interest and Volume (BTC)



The underlying contract size is a major difference between the two. CME's has five Bitcoins, whereas each CBOE contract is directly matched with one BTC. CME futures are based on the Bitcoin Reference Rate, disseminated by a number of exchanges. CBOE futures are based on Bitcoin trading on the Gemini exchange.

{CRYP} Page on the Bloomberg Terminal													
Index	Last	Net Chg	% Chg	0pen	Yest Close 2 Day Chart	30D Range	Time						
1) BGCI Bloomberg Galaxy	475.64	+5.81	1.24%	477.59	469.83		07:28						
Base USI													
Coins	Last	Net Chg	% Chg	Bid	Ask 2 Day Chart	30D Range	Time						
11) Bitcoin	6502.25	+81.30	1.27%	6501.71	6502.79		07:28						
12) BitcoinCash	629.02	+13.22	2.15%	628.17	629.87		07:25						
13) Dash	165.834	-4.044	-2.38%	165.546	166.122		07:28						
14) EOS	5.6895	+0.0026	0.05%	5.6873	5.6918		07:28						
15) Ethereum	218.905	+2.967	1.37%	218.810	219.000	$-\!$	07:28						
16) Ethereum Classic	9.727	-0.095	-0.97%	9.723	9.730		07:28						
17) Litecoin	54.745	-0.160	-0.29%	54.700	54.790		07:28						
18) Monero	110.620	-1.693	-1.51%	110.615	110.625		07:28						
19) XRP	0.5323	-0.0077	-1.43%	0.5318	0.5328 مىمىمىمىم		07:28						
20) Zcash	129.135	-0.170	-0.13%	129.000	129.270		07:28						
Futures	Last	Net Chg	Volume	0pen	Settle 2 Day Chart	30D Range	Time						
21) CBOE Bitcoin	6515.00	+97.50	926.00	6440.00	6417.50		07:21						
22) CME Bitcoin	6510	+95	2416	6430	6415		07:15						

As of the morning of November 7, 2018 EDT

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