Bloomberg Crypto Outlook – September 2018 Edition

A Bear Market In Transition

- **Primary companions point to enduring bitcoin and crypto bear**
- **Volume, volatility and the NVT ratio indicate a lower bitcoin price**
- **Bitcoin and cryptocurrency supply vs. demand still unfavorable**
- **Tether success a sign of cryptocurrency stable coin future**

Note - Click on graphics to get to the Bloomberg terminal

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BI COMD (the commodity dashboard)

Most data as of Sept. 5

Performance: *Bloomberg Galaxy Crypto Index (BGCI), August -21.7%, YTD -70.7% (to Sept 5).*
Bitcoin: August -8.4%, YTD -49.2% (to Sept. 5)

Bitcoin, Crypto Bear Market Appear Well-Fed for More Declines

(Bloomberg Intelligence) -- The receding cryptocurrency tide is unlikely to reverse in the near term as the need for capital appears to far exceed new inflows. With the primary stable coin, Tether, advancing the fastest among the top 10 and Bitcoin's relative outperformance, indications are the market is morphing to selling rallies from a speculative, buy-the-dips posture. By some estimates, the market needs about $1 billion of inflows just to offset expenses.

This has become evident in the rapid decline of alt coins, notably No. 2 Ethereum (ETH). As the primary platform for initial coin offerings (ICOs), the overhang of ERC20 tokens should continue to whittle away at ETH's 3,000-plus% return since the beginning of 2017, vs. less than 600% for Bitcoin. Supply, demand, price indications and hopes of a crypto ETF pushed deep into 2019 remain negative.

Bitcoin Indicators Still Lower

Primary Companions Point to Enduring Bitcoin and Crypto Bear. Bitcoin volatility should continue to decline, along with prices. The first-born cryptocurrency is set to shift into a $5,000 handle following new lows in the broader market. The marketplace appears to be transitioning to acceptance of the bear market from buying dips. A sustained lack-of-faith period is likely for a bottom.

Bitcoin Companions: Lower Price and Volatility. Bitcoin volatility should continue to decline, and that is usually coincident with lower prices. Sustained periods of low volatility have typically served as launch pads for rallies, but what's different this time is Bitcoin volatility should be on the path to new lows. Maturation, increasing participation, mainstream status, increasing arbitrage and hedging facilities (futures), and almost 2,000 companions for the first-born cryptocurrency are volatility suppressants. Bitcoin price and volatility should continue the bear-market trends, at increasing risk of playing some catch-up to the accelerating broad market decline.

Bitcoin Set to Follow BGCI and Volatility Lower

The Bloomberg Galaxy Crypto Index's (BGCI) drop below key 2018 support in August indicates Bitcoin should do the same below its triple bottom near $5,900.

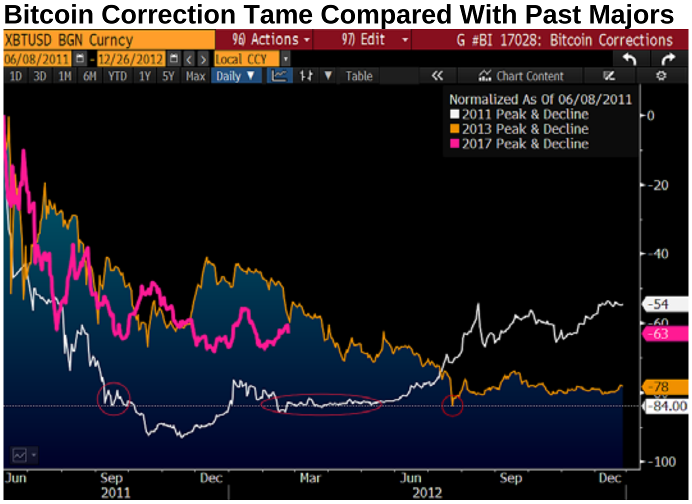
Volume, Volatility Indicate Lower Bitcoin Price. Declining Bitcoin volume and volatility indicate a similar price trajectory. If the 2014-15 bear-market bottom is a guide, 90-day volatility has further to fall. The 30-day measure of Bitcoin volume from Nomics is also declining. A favorable combination for price gains from these ex-post measures is subdued volatility and Bitcoin's 30-day average volume increasing above its price at the scale in the featured graphic. Market maturation should result in volatility at new lows.

Lower, stable prices are synonymous with declining volatility. Volume has fallen to levels where it bottomed in July and October last year, but shows little sign of recovering. Most measures of daily volume are similar, currently the longest period of stability in the database. Spiking volume at the end of 2014 was an early indication of a price bottom.

Bitcoin Volume Indicates Enduring Bear Market

Past Bitcoin Corrections Point to $3,000 Support. If history is a guide, Bitcoin's price should find initial support at about $3,000 and remain lower for longer. A common denominator in the two prior corrections was 84% from peak to trough. The first, from a June 2011 high of about $30, bottomed at 93% about five months later. It passed the longest period at about an 84% discount before starting to recover about a year after the peak. The second bottomed at an 84% discount from 2013's peak but took about two years before turning up again.

Bitcoin Correction Tame Compared With Past Majors



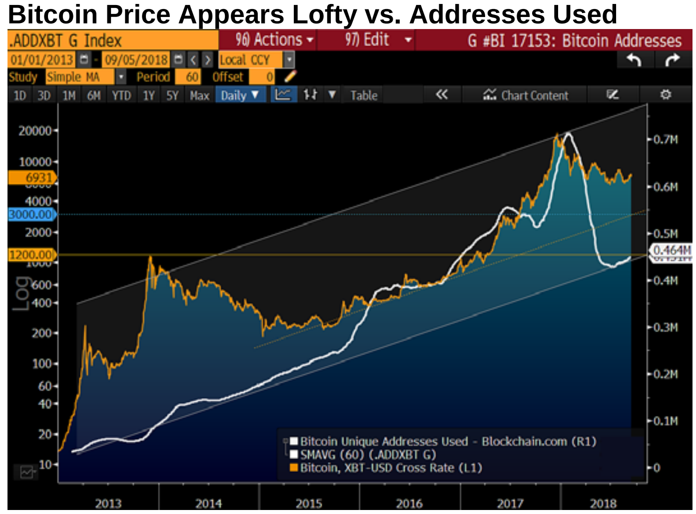
At a max drawdown close to 63%, the current decline is tame compared with the two majors. Market maturation, the extent of the 2017 global frenzy and increasing competition suggest the extent and duration of the current decline should be reciprocal, likely exceeding past examples. An 84% correction of 2017's $18,674 high is about $3,000.

Supply & Demand Remain Bearish

Bitcoin and Cryptocurrency Supply vs. Demand Still Unfavorable. Supply and demand indicators in the cryptocurrency market suggest lower prices. The number of Bitcoin addresses used has stabilized at a level last associated with a price close to $1,200. The network value-to-transactions (NVT) ratio has leapt to almost the highest ever in a similar pattern as the 2014 bear market.

Addresses Used Show Bitcoin Still Priced High. An analysis of unique Bitcoin addresses used shows that prices are still elevated. This demand proxy appears to have stabilized, but at levels last associated with the Bitcoin price of about $1,200 from the beginning of 2017. Indicating the extent of the frenzy and a potential longer-term peak, the velocity of this year's decline in the 60-day average of addresses is the most extreme in the database since 2009. In recent years, the Bitcoin price has had a tendency to revert toward the level of addresses depicted at the scale in the featured graphic.

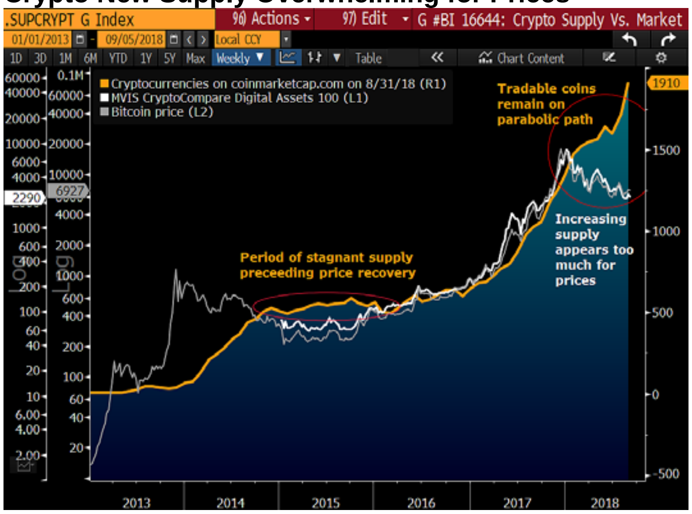
Bitcoin Price Appears Lofty vs. Addresses Used



Our analysis shows the 60-day average of addresses used may be bottoming, but there still appears to be a wide disparity vs. elevated prices.

Supply Remains Parabolic, Pressuring Prices. The increasing supply of tradable cryptocurrencies remains parabolic, which suppresses broad market prices. This supply measure may be more macro indicative, as most new coins are de minimis in stature, but the point of diminishing returns appears well-entrenched. Looking at past performance for this guide, supply will need to flatline or decline before broad market prices recover. By some estimates, the number of successful tradable cryptocurrencies may be purged by almost 80%, similar to internet companies in 2000-02.

Crypto New Supply Overwhelming for Prices



In 2014, when Bitcoin (BTC) dominated the market, the measure that is now about 1,900 approached 400 then stalled, allowing supply, demand and price to rebalance. February 2016 is the only month that new-coin supply actually declined on a 12-month basis; BTC increased about 2x in the subsequent 12 months

Bitcoin NVT Ratio Reenters High-Risk Zone. Rocketing to almost its highest level ever, Bitcoin's NVT ratio indicates elevated price risk. The last time the eight-week average of the estimated value of all Bitcoin vs. daily transactions leaped from a similar consolidation period to a new high was in the midst of the 2014 bear market. If history is a guide, the bear market is approaching the halfway mark. When the NVT ratio hit a second peak in 2014, Bitcoin had already declined about 50% from the 2013 top. It declined another 70% from the ultimate ratio peak in July that year.

The NVT ratio has just reached the highest level since 2011. It's considered a relative-value proxy for cryptocurrencies, similar to the P/E ratios used for stocks.

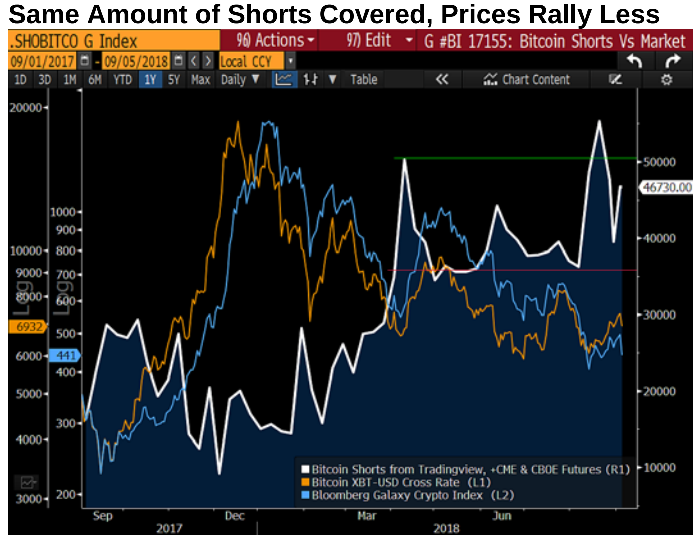
Network Value-to-Transactions Ratio Akin to 2014

Broad Market Mean Reversion

Increasing Risk of Diminishing Returns to Bitcoin Short Covering. Bitcoin short-covering rallies appear to have reached diminishing returns, with the first-born cryptocurrency nearing good resistance vs. the broad market. Declining emerging-market currencies have provided a relative Bitcoin bid, but it should be short-lived, with stability prevailing.

Bitcoin Short Covering Supporting Market Less. The cryptocurrency market faces greater risk, with increasing amounts of Bitcoin short covering corresponding with diminishing rallies. Bitcoin short positions declined by 16,000 (about 30%) from the August peak-to-trough, which coincided with less than a 20% recovery in the price and the Bloomberg Galaxy Crypto Index. In April, markets recovered about double that percentage despite a similar amount of short covering.

Same Amount of Shorts Covered, Prices Rally Less



Divergent weakness is our takeaway as the bear market gains momentum. This measure of Bitcoin short positions bottomed in early December not long before the market peak. Nearing the low level of short positions since April reduces an underlying market bid. Measurable on exchange, shorts (including futures) are indicative, as they are likely minor vs. the more-sizable OTC market.

Emerging Markets' Bitcoin Bid Likely Short Lived. Bitcoin's relative bid coincident with declining emerging-market currencies is pushing the benchmark crypto into good resistance vs. digital peers. The last time Bitcoin held at a higher level relative to the MVIS CryptoCompare Digital Assets 100 Index was April 2017. Declining EM currencies are extolling the "digital gold" diversifier attributes of Bitcoin, but should prove to be short-lived. Diversifying from one bear market to another may not be desirable.

Bitcoin Back Near Good Relative Resistance

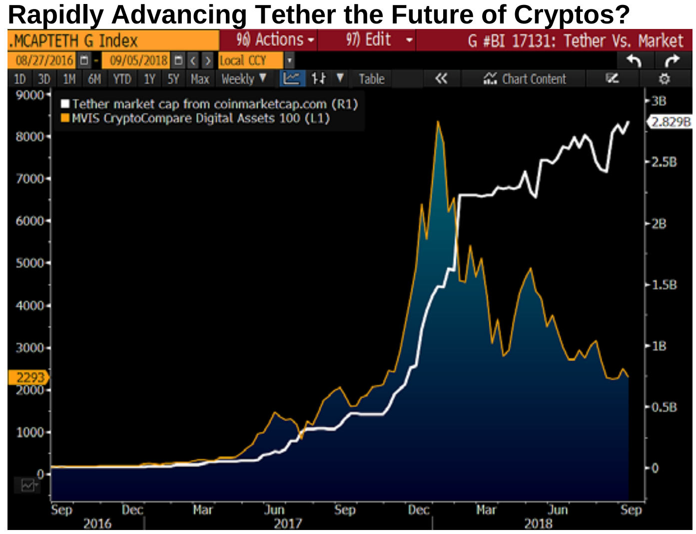
Using Bitcoin to diversify EM currency exposure may make sense, though the added volatility supports more stability-focused cryptos such as Tether. Bitcoin's market dominance (about a 54% share in September) is up from the 33% low in January.

Movers Favoring Stable Tether

Top-Advancing Crypto, Tether, Indicates Stable-Coin Dominance. Benefiting from speculative excesses leaving the market, the rapidly increasing capitalization of Tether is also indicative of a cryptocurrency future that favors stable coins. It stands in stark contrast to the Ripple token, XRP, among the most pumped up of 2017 and at a high risk of dropping another notch to Bitcoin Cash, in our view.

Tether Success a Sign of Cryptocurrency Future. The increasing capitalization of stable-coin Tether is indicative of declining cryptocurrency speculative excesses and market maturation. Highly volatile assets that attract rampant speculation generally aren't appropriate medians of exchange, stores of value or units of account necessary for a proper currency. The success of controversial Tether is indicative of crypto speculators seeking refuge, and the market's realization that coins designed with the goal of rapid appreciation are inappropriate for most peer-to-peer uses.

Rapidly Advancing Tether the Future of Cryptos?



Tether Joining Top 10 Supports Stable Coins. Tether's rapid advance in cryptocurrency-market capitalization indicates a solid future for stable coins, in our view. Advancing the most notches (to No. 8) at the beginning of September, Tether's almost 100% increase starkly contrasts with Ripple's 84% decline. The XRP token was among the most speculatively pumped in 2017, yet unnecessary for the Ripple money-transfer system. It's at high risk of dropping another notch to Bitcoin Cash. The hard fork of Bitcoin, Bitcoin Cash is also indicative of the fallacy of limited supply -- Bitcoin supply is actually unlimited when including fork risks.

Tether Heads Advancers; Ripple the Lead Decliner

Top Ten Crypocurrencies By Market Capitalization

	End of 2017			Sept. 4, 2018					
		Mkt Cap. $ Billions	% of Top 10		Mkt Cap. $B	% of Top 10	Mkt. Cap. Change 2018	1-month Change	2018 Rank Chg.
1	Bitcoin	216.3	45.1%	Bitcoin	126.9	62.9%	-41%	0%	
2	Ripple	81.2	16.9%	Ethereum	29.0	14.4%	-58%	-30%	+1
3	Ethereum	68.9	14.4%	Ripple	13.2	6.5%	-84%	-23%	-1
4	Bitcoin Cash	40.1	8.4%	Bitcoin Cash	10.9	5.4%	-73%	-12%	-
5	Cardano	16.7	3.5%	EOS	5.8	2.9%	20%	-9%	+6
6	Litecoin	11.8	2.5%	Stellar	4.3	2.2%	-24%	-8%	+3
7	IOTA	9.2	1.9%	Litecoin	3.9	2.0%	-67%	-9%	-1
8	DASH	7.8	1.6%	Tether	2.8	1.4%	98%	15%	+8
9	Stellar	5.7	1.2%	Cardano	2.7	1.4%	-84%	-19%	-4
10	Monero	5.1	1.1%	Monero	2.2	1.1%	-57%	14%	-
	Total	462.8		Total	199.5		-57%		

Sources: Bloomberg Intelligence, Coinmarketcap.com

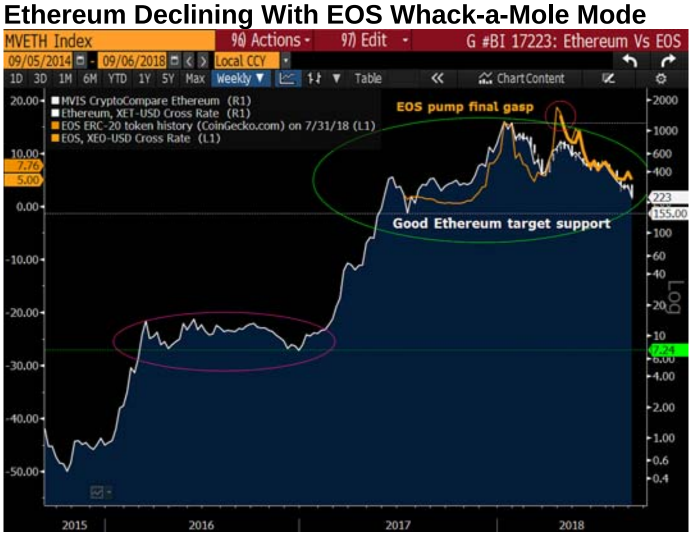
Rapidly advancing Tether increases crypto-market risk as investors seek to preserve gains from more-speculative coins. There are disputes as to whether Tether is actually backed 1-to-1 by the dollar.

Ethereum Reversion Risks

Ethereum Target Support Is About $155 on History, Competition. Market maturation, increasing competition and elevated volatility indicate the Ethereum price should continue to decline. The level that sticks out as good target support is $155, about 40% below the Sept. 5 price, but still about a 2,000% advance from the end of 2016. ERC-20 tokens and the need for capital are primary overhangs.

Next Ethereum Target Support Near $155. The rampant success of Ethereum is bringing competition and continued reversion to the mean after 2017's buying frenzy. The next good target support level should approximate last July's $155 low for ETH. Following its early-2016 surge, Ethereum bottomed at about $7 as the market corrected and consolidated parabolic gains. That period was indicative of the extent of ETH mean-reversion risks, with the overhang of ERC20 tokens. The performance of new prime competitor EOS, a decentralized-platform provider, should be a guide.

Ethereum Declining With EOS Whack-a-Mole Mode



The hangover from the EOS pump-up into its main-net launch in June promises to be enduring and a drag on all cryptocurrency. EOS is a prime example, in our view, of the hype getting well ahead of the technology.

Ethereum Unlikely to Bottom Until Volatility Does. The price and volatility of Ethereum are likely to continue lower. ETH's price has had a greater propensity to bottom when volatility is well-below recent peaks. Just breaching the November lows, the 90-day volatility gauge is likely to continue to decline as the market matures, with greater participation and competition. Volatility of about 80% is almost double the 2016 low that preceded the bull market. This level will be revisited, though we think it's a question of time and maturity.

Ethereum Volatility Likely on Path to New Lows

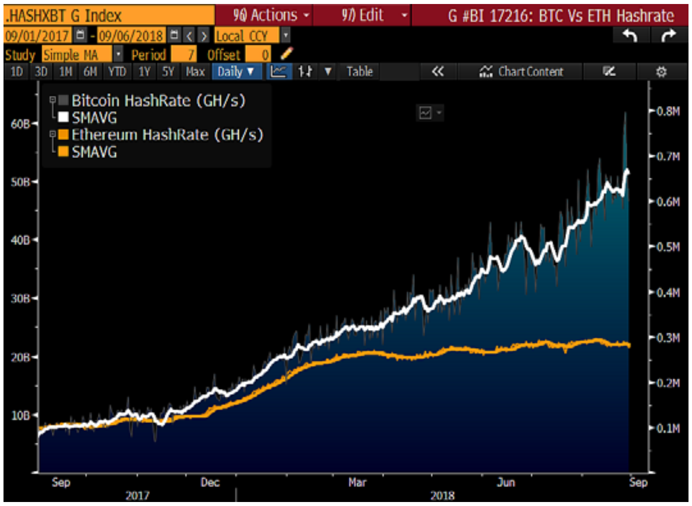
New competitors (EOS), more potential trading vehicles, such as futures, and some back-and-fill of parabolic gains are part of the maturation process. The two-year peak in 90-day volatility occurred about a year ago, when EOS ERC20 tokens started trading.

Bitcoin Hashrate Predominant

Ethereum's Hashrate Is No Comparison to Bitcoin's Network Power. Bitcoin's network hashrate, among the primary measures of a blockchain's robustness, is in a league of its own vs. other cryptocurrencies such as Ethereum. The hashrate indicates how much computing power is behind a network and its level of security and stability. Bitcoin's dominant hashing power makes it a go-to in emerging-market currency distress.

Bitcoin Network Growth Outpaces Ethereum. The slower growth of Ethereum, coupled with the continued expansion of Bitcoin's hashrate, is indicative of the latter's staying power. Over the past year, Bitcoin's hashrate growth has handily outstripped Ethereum's, which has mostly leveled off since March. The continued ascent in the Bitcoin hashrate is likely from additional miners and the creation of more specific and efficient hardware that's used to unearth more coins.

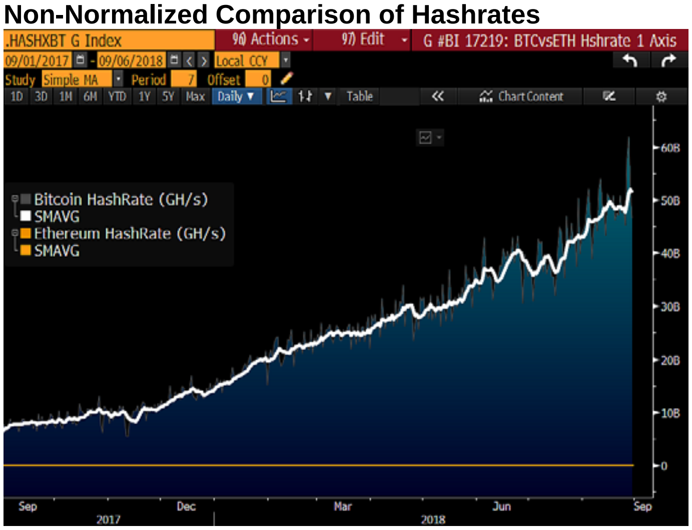
Network Growth: Bitcoin vs. Ethereum



Over the past 1.5 years, Ethereum has gained serious traction via initial coin offerings, and was once touted as a Bitcoin killer or replacement. If hashing power is any indication, the overtaking of Bitcoin is highly unlikely to occur at any point in the near future.

Bitcoin's Hashrate Dwarfs Ethereum. The massive power of the Bitcoin network exemplifies the security behind it, but also the energy needed to keep it operating. When looking at a non-normalized graph, Ethereum's hashing power -- hashes per second -- is trivial vs. Bitcoin's. A hash is essentially a guess at solving the problem that's required to fulfill the cryptographic mining process to complete the blockchain. Bitcoin's network sits at about 53 billion gigahashes a second (Gh/s) vs. 280,000 for Ethereum.

Non-Normalized Comparison of Hashrates



Performance, Sorted by 1-Yr Change

Name	1 Mth % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change
Bloomberg Galaxy Crypto Index					
Bloomberg Galaxy Crypto Index (BGCI)	-27.3	-47.2	-70.2	27.7	
USD Cross					
Bitcoin (BTC)	-7.4	-15.9	-55.2	40.2	948.3
Ethereum (ETH)	-44.0	-62.6			
Ripple (XRP)	-32.2	-57.6			
Litecoin (LTC)	-25.2	-54.2			
Bitcoin Cash (BCH)	-27.3	-55.8			
Dash (DASH)	-15.2	-45.4			
Ethereum Classic (ETC)	-38.9	-25.7			
EOS (EOS)	-28.7	-63.5			
Monero (XMR)	-3.1	-33.3			
Zcash (ZEC)	-29.6	-45.4			
MVIS CryptoCompare Indices					
Single Asset Indices					
Bitcoin (BTC)	-7.4	-14.8	-56.2	44.5	1,148.8
Ripple (XRP)	-32.4	-57.1	-83.0	24.2	4,769.9
Monero (XMR)	-4.8	-33.0	-69.9	-10.2	787.5
NEO (NEO)	-29.5	-64.7	-72.8	-10.7	
Iota (MIOTA)	-36.0	-67.3	-85.1	-21.0	
Bitcoin Cash (BCH)	-27.5	-54.9	-82.0	-22.3	
Litecoin (LTC)	-24.7	-53.7	-78.1	-31.5	1,291.8
Ethereum (ETH)	-44.3	-62.0	-69.7	-33.2	1,832.4
Ethereum Classic (ETC)	-38.6	-25.1	-60.3	-38.8	666.6
ZCash (ZEC)	-30.8	-45.8	-76.6	-49.0	
Dash (DASH)	-16.4	-38.0	-85.0	-50.8	1,449.1
NEM (XEM)	-30.6	-60.3	-90.1	-67.7	1,597.5
Multi-Asset Indices					
Digital Assets 25	-26.8	-52.0	-71.0	12.2	1,930.1
Digital Assets 5	-27.5	-46.0	-69.7	5.1	1,438.5
Digital Assets 100 Large Cap	-20.0	-39.0	-68.4	4.4	1,111.2
Digital Assets 100	-20.6	-41.3	-69.2	4.1	1,150.3
Digital Assets 10	-27.2	-48.1	-71.1	2.7	2,109.3
Digital Assets 100 Small Cap	-30.5	-65.0	-76.9	-8.4	1,254.8
Digital Assets 100 Mid Cap	-25.4	-59.9	-79.1	-20.1	1,814.6
MVIS IP owned by Van Eck, distributed by S...					
Bitwise Crypto Indices					
Multi-Asset Indices					
Bitwise Hold 10 Large Cap Crypto Ind...	-27.5	-46.0	-69.7	5.1	1,438.5
Bitwise 20 Mid Cap Crypto Index					
Bitwise 70 Small Cap Crypto Index					
Bitwise 100 Total Market Crypto Index					
Bitwise IP Owned by Bitwise Asset Manage...					
BTC Cross					
Ripple (XRP)	-33.9	-54.6	-71.7	-20.5	
Litecoin (LTC)	-19.2	-45.6	-46.7	-51.8	
Ethereum (ETH)	-39.6	-55.6	-32.1	-52.1	
Bitcoin Cash (BCH)	-21.6	-47.3	-53.0		
Dash (DASH)	-8.4	-35.1			
Ethereum Classic (ETC)	-34.0	-11.6			
EOS (EOS)	-23.1	-56.6			
Monero (XMR)	4.7	-20.7			
Zcash (ZEC)	-24.0	-35.1			