ZEROCAP

Digital Asset Firm
for Private Clients

Zerocap Q4 2021 Insights

www.zerocap.com

Zerocap is a wealth management firm for digital assets, providing deep liquidity, insured custody and yield products for clients looking to move seamlessly between fiat and digital assets.

Our global banking infrastructure and principal trading model enables fast settlement in all major currencies and OTC assets. We offer a fully insured asset environment in custody on a dollar-for-dollar basis, with a range of investment options for compounded returns.

We are the firm for private clients, family offices and institutions.

CIO note

Q4 brought us our largest quarter yet on the OTC desk as the market rallied to new highs. Institutional adoption was in full swing with a host of acquisitions and funding rounds in the space. We saw a number of key trends play out, benefiting those who accumulated with conviction during the Q3 mini-bear move. We launched our structured products desk on Q4, providing additional value to clients looking for high yields whilst waiting for entries, or monetising existing portfolios.

Up and coming layer-1 alternatives had their first taste at the top with an onslaught of liquidity incentives driving traffic to their chains. Not only did this detract from Ethereum and its native protocols, it also revealed an overlooked trend in the space. With every hefty retracement that the market offers up, a host of new and enthused participants enter the space on the hunt for glory. For the first time, Ethereum has serious competition on hand that is gaining momentum.

Two factors buoyed ETH in Q4, the most prominent being the booming NFT space which bounced convincingly to new ATHs in trade volume following the July lull. Blue chip projects set continuous sale records and floor raises over the period with the BAYC universe standing out. A number of new additions looked to increase the competition for market share, all while developing new and innovative use cases within the sector, a positive sign of healthy long-term growth. This said, we see a lot of 'weak hands' in NFTs right now, which does not bode well for short-term moves beyond the big NFT issuers.

Following Facebook's rebrand to Meta, we saw both trade volume and protocol activity on metaverse focused projects spike. Sandbox, perhaps the largest benefactor of the capital flow into the space, filled the perfect gap for the retail crowd with its digital LAND (NFT) topping Opensea trade volume for weeks on end.

While the altcoin space increased its capitalisation and market share drastically over Q4 off the back of new entrants, BTC had its largest quarter yet in terms of institutional adoption. ETF approval season triggered excitement and rumours essentially from the 1st of October as we witnessed BTC open interest and spot volume accelerate. Price inevitably rallied off the back of this hype and faced its first significant pullback on the launch of Proshares Futures Based BTC ETF on the NYSE.

The increasing sophistication of market participants led to a surge in demand for structured products this quarter. While we are yet to see supply catch up, the yield on offer in the space creates the perfect environment for these products to deliver, often with defined risk to reward payoffs.

Traditional markets got their first taste of a more hawkish shift from the Fed and global central banks which took a toll on the markets. Perhaps the most notable observation over this period was the increase in correlation between the crypto sector and the traditional space. While mass adoption inevitably brings correlation with it, we hope to see BTC outperform in a tightening environment off the back of its inflation hedge properties. Q4 displayed the market's tendency to rely on crypto as a risk proxy across weekends and holiday periods which will continue to be of importance should the Fed normalise rates as intended and liquidity dries up.

While the outlook for 2022 is filled with uncertainty, the house view is that there is still runway for risk assets in the near-term. The key to investment success in the quarters to come will be a focus on value, conservative positioning and a firm belief in the long-term success of your holdings. If in doubt, zoom out the chart.

All the best for the new year everyone!

Cryptocurrency market performance

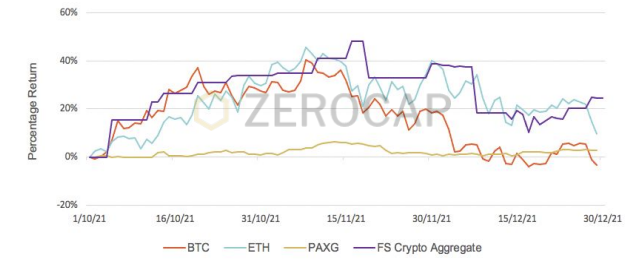
A Turbulent Quarter

BTC returned **-3.76%** compared to ETH at **11.34%** over Q4. In October, as conversations surrounding crypto regulation and institutional adoption grew in relevance, the sector caught worldwide attention. Growth in transaction volume and new unique entities was paired with a focus on asset accumulation with sustained exchange outflows. As we moved into November, questions regarding inflation's transitionary classification began to underpin market sentiment. As the market moved into overheated territory, a notable growth in perpetual futures open interest to ATHs filled the system with leverage.

By early-November, just as the US Federal Reserve's tapering was confirmed to begin later that month, the market saw strong moves to the upside with both BTC and ETH reaching new ATHs. CPI data releases provided the necessary headwinds for a major deleveraging event as traders aggressively bought the top. A domino effect of profit-taking and stop-outs sent ripples through the sector, repainting the bullish narrative that was persistent throughout October. The newly developed bearish undertone persisted throughout the remainder of the quarter with BTC and ETH seeing drawdowns of **-31.47%** and **-23.47%** from their respective ATH's to closing price at December 31.

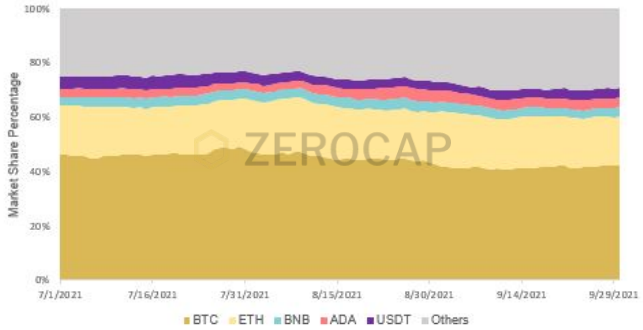
Bitcoin's market share decreased from **42.12%** to **40.09%** over the quarter. ETH's market share grew from **18.10%** to **20.05%** which can be partially attributed to the popularisation of NFT's transacting on the Ethereum blockchain and increases in the amount of value bridged into L2 scaling solutions. Stablecoins showed notable growth over the quarter as macro uncertainty triggered a move to risk-off. USDT's overall dominance continues to overshadow its rivals with an added **$10.32B** minted over the quarter. Notably however, USDC's supply grew **32.21%** compared to USDT's which only grew **15.16%**.

2021 Q4 Cryptocurrency Returns



* FS Crypto Aggregate tracks the performance of 630 digital currencies, representing the market as a whole.

2021 Q4 Cryptocurrency Market Share



2021 Q4 Top 5 Stable Coins QoQ

USDT	USDC	BUSD	TerraUSD	DAI
$78.35 B	$31.52 B	$14.63 B	$10.14 B	$6.48 B
(+$10.32 B)	(+$10.27 B)	(+$1.63 B)	(+7.46 B)	(+$2.78 B)
(+15.16%)	(+32.21 %)	(+12.56 %)	(+279.3%)	(+42.97%)

Quarterly Asset Performance

Bitcoin

BTC entered the quarter with bullish momentum, crossing a $1 trillion market capitalization in its first week. Large capital inflows across both spot and derivatives were primarily driven by rumours of a BTC ETF approval on the horizon. Momentum held for the first three weeks of the quarter with shallow dips quickly being bid.

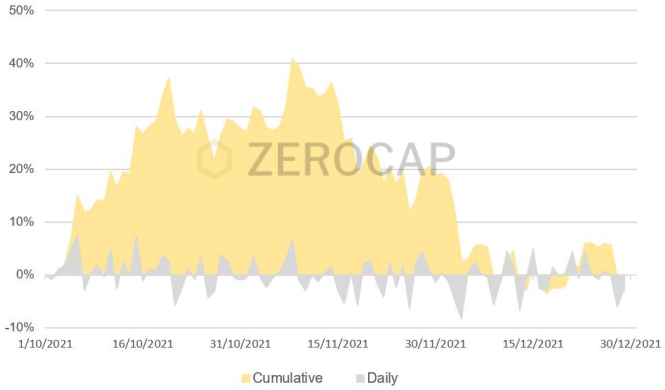
Proshares launched their futures based BTC ETF on Oct 19th, seeing the second largest capital inflows in NYSE history on its first day as well as attracting more than $1 billion in AUM faster than any NYSE fund in history. However, launch day experienced a buy the rumour sell the news event, with price action punishing those hoping to long the breakout above the asset's previous ATH. Over the following eight days, price retraced 14.2%, primarily due to profit distribution into the rest of the space and mild liquidations.

For the remainder of the month, price largely consolidated with no real narratives driving price action and attention shifting to the alt space. As CPI inflation data worsened going into the quarter, we saw the inflation hedge narrative pick up steam which was partially responsible for a resurgence in trading activity. From Nov 6 - Nov 10 we saw an uptick in volatility as price moved +14.92%, setting a new ATH at $69,000. The largest catalyst for the final push to a new ATH was the release of October inflation data with price spiking 3.15% in the hour following the data release.

A flurry of profit taking and long liquidations were compounded by aggressive shorting as price retraced the move and spent the remainder of the month grinding lower. Despite multiple bounces sparking hope in bulls, the market was brutalised by a macro pivot to risk-off due to Omicron concerns. A -27% drop in as little as 24 hours across December 3rd-4th led to almost a quarter of open interest (-$5.4B) in Bitcoin's futures market being wiped. Price spent the rest of the quarter consolidating above the $40,000 level as investors pulled funds into year end profit taking. Overall, the cumulative return for bitcoin over Q4, 2021 was **5.65%**. The cumulative market cap change was **$48B**, rising to **$876B** in capitalisation.

BTC Q4 Price & Volume

BTC Q4 Market Cap Change

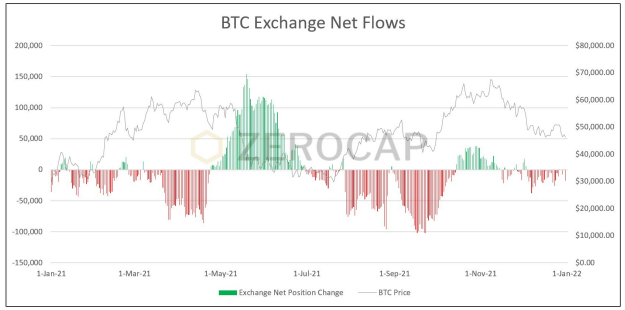


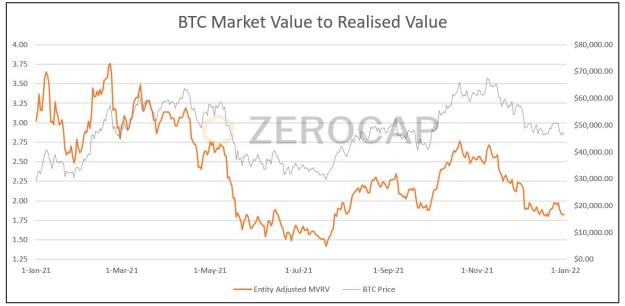
Bitcoin On-Chain

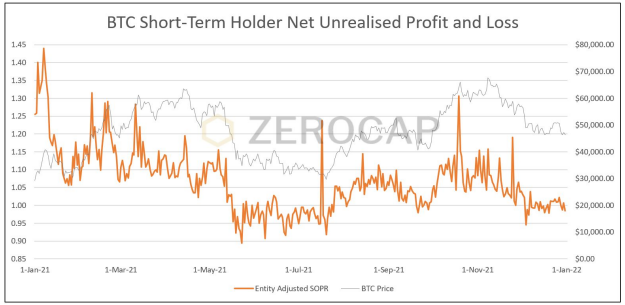
BTC saw exchange balances fluctuate over the quarter as volatility picked up. A slowing of outflows led to inflows within a matter of weeks as market participants sold into the strength. After a period of sustained inflows throughout November, direction began to chop back and forth as uncertainty and fear crept in.

Similarly, the market value to realized value trend, a measure of fair value for assets, experienced an uptick off the back of October's rally. This was caused by market cap growth but a proportionally lower amount of profit realization. This is an indication of bullish sentiment but also highlights an increased likelihood of price support collapsing. Alternatively, as the ratio drops it indicates a stronger support base at the respective level. Throughout Q4 we saw this ratio slowly fall as coins were exchanged and these higher prices ($40,000-$69,000) were realised.

The short-term holder net unrealized profit and loss displayed high levels of capitulation amongst new entrants, selling at sizeable losses due to fear in the market later in the quarter. This remained a constant driver of selling pressure throughout December and contributed to the rise in realized value mentioned above.







Ethereum

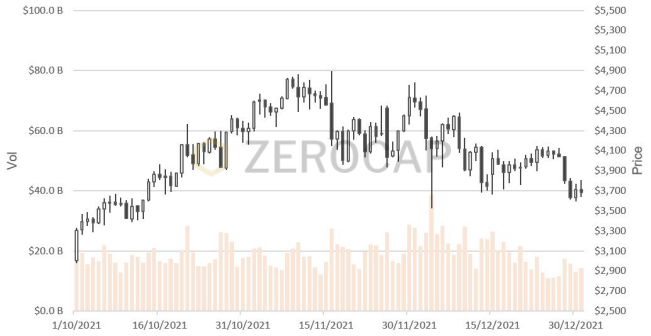
Ethereum had a relatively muted quarter in terms of newsflow with the majority of price action dependent on sub-sectors such as NFTs, metaverse protocols and DeFi. The significant number of new crypto users that dived into the space in Q3 began to materially impact capital flows this quarter. The NFT boom in October added to already elevated levels of network congestion on Ethereum forcing many to alternate chains. Where more experienced users may have historically remained on Ethereum due to personal bias, these new users actively searched for the cheaper, faster chain with the majority of alternate L1s benefiting.

Ethereum was primarily a beneficiary of the rising tide lifting all boats leading into November. We did see see a sizeable allocation from traditional money managers as increasingly, ETH is one of many layer-1 investments in their crypto allocation.

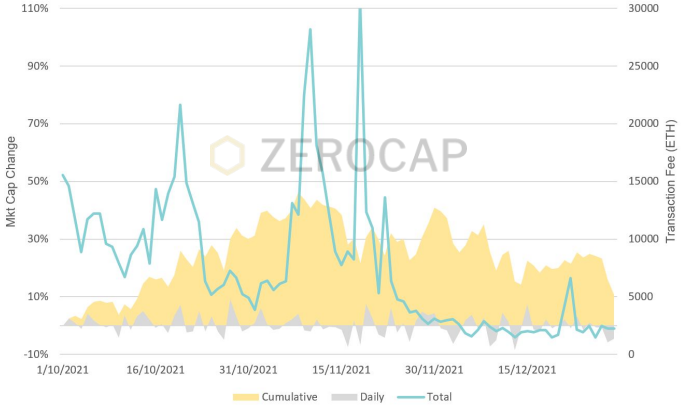
Following the BTC ETF launch, early signs of capital rotation began to show with ETH catching a stronger bid, rallying against BTC and the dollar to a new ATH at $4,870 by early November. The retracement that followed further displayed the signs of broader market weakness as ETH and alts held up better than BTC. ETH market dominance hit its highest point since February 2018 indicating hefty profit taking on BTC and an increase in greedy behaviour amongst market participants reinvesting profits. This coincided with an increase in DeFi TVL on Ethereum to a new ATH. Similarly, ETH layer-2s saw similar inflows with TVL doubling in the second half of 2021.

The cumulative return for ether in Q4 was **22.74%**. The cumulative market cap change was **$48.6B**, reaching **$438B** in capitalisation.

ETH Q4 Price & Volume



ETH Q4 Market Cap Change & Gas Fee



Ethereum On-Chain

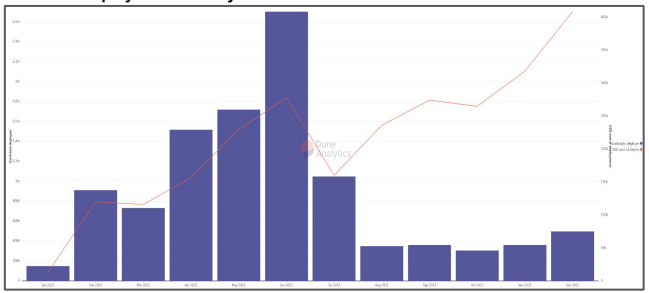
Ethereum faced a tough quarter as the L1 race intensified and experienced its first publicised loss of market share due to massive liquidity incentive programs for both users and developers on competitor platforms. Following the July hype around the network's switch to PoS (London Hard Fork), a sharp drop in contract deployment was met with a notable spike in developer costs which continued to accelerate throughout Q4. The drop off, inconsistent with marketwide developer adoption, indicated that a migration was underway to alternatives due to the comparatively lower cost to launch on those networks.

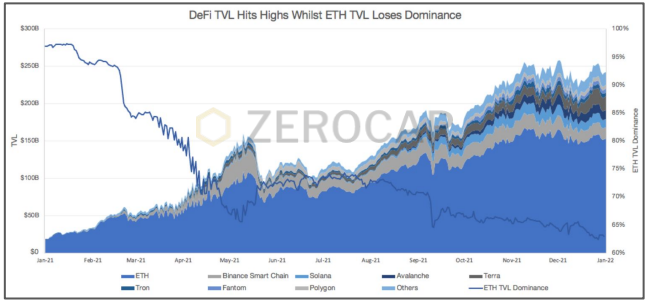
The shift began during DeFi summer with a notable capital rotation in Q2 due to lower costs and retail chasing high APYs on BSC. However, as more layer-1s provided incentive programs and began to build out key verticals (money markets, DEXes, etc.), the market followed the money, further detracting from ETH's reign. By year end we saw TVL spike across alternative chains and ETH dominance hit its lowest point YTD.

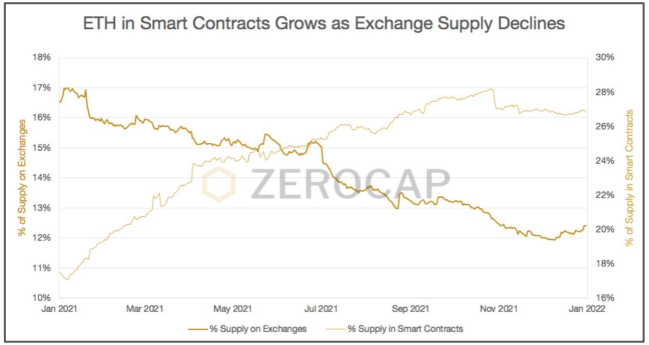
Despite the negative quarter for the asset, the outlook still remains positive. The chain still has the highest TVL in the space by a long shot and ETH held in smart contracts (TVL/Total Supply) has held its ground over the quarter with only a slight decline. Combine this with a notable year long trend of exchange balance decreases and medium to long term health looks on track.

As more users continue to onboard into the space, it will be important to watch these metrics for signs of strength and/or weakness. If Ethereum wants to maintain its dominance in the layer-1 space, it will need to capture new users, a task its competitors are currently outperforming in.

Contracts Deployed on ETH by Month







Decentralised Finance

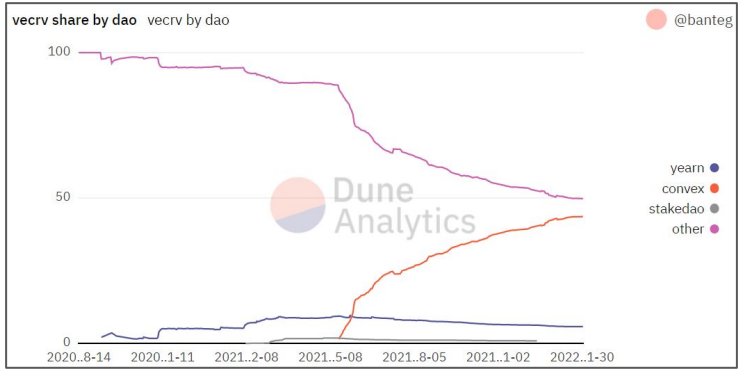
DeFi had a relatively muted quarter however we did see key sub sectors shine.

Rebase Tokens
While yield farming saw reduced capital allocation over Q3, an onslaught of rebase token protocols (primarily Olympus (OHM) forks) drove a resurgence in Q4 with many offering 7 figure APYs. Olympus saw liquidity drain over this period as competitors such as KLIMA and TIME rose in popularity. While many more attempted to secure market share, the majority saw swift pump and dumps as early entrants took advantage of liquidity conditions and the hype chasing retail crowd.

Although almost all of these tokens suffered steep drawdowns into year end, the underlying concept of protocol-owned liquidity had a meaningful impact on the architecture of up and coming DeFi platforms, a trend that is likely to continue as founders discover new ways to take advantage of this approach.

The Curve Wars
The battle for CRV continued this quarter as protocols attempted to increase their stores in the hope of attracting liquidity incentives from the stablecoin DEX. Convex Finance still holds the largest portion of the token with 85% of Curve's TVL locked in Convex (up from 53% in August) and just under half of veCRV's total supply held by the protocol.*

Due to their increase in dominance over 2021, those in search of Curve voting power are now turning to CVX accumulation with the intent to sway their voting preferences. This has sparked a number of voting accumulation protocols such as Redacted Cartel, which ultimately aim to capitalise on the importance of voting power in DeFi today.



* veCRV is voting escrowed CRV which allows owners to vote weekly on how the protocol should allocate its liquidity incentives. This has become a vital component of maintaining deep liquidity on Curve as elevated yield attracts liquidity providers.

Emerging Themes

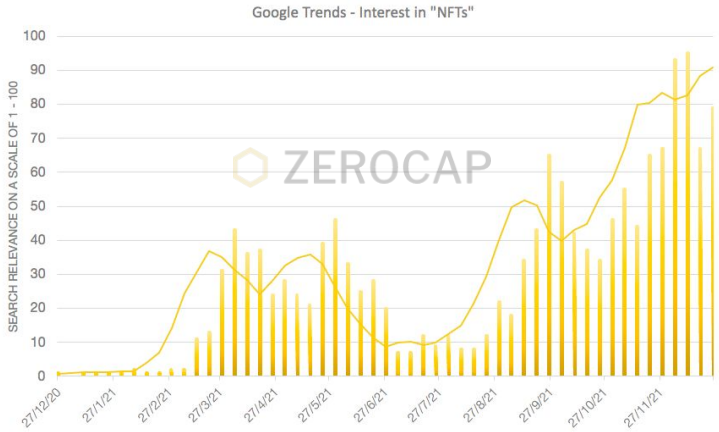
NFTs and the Metaverse

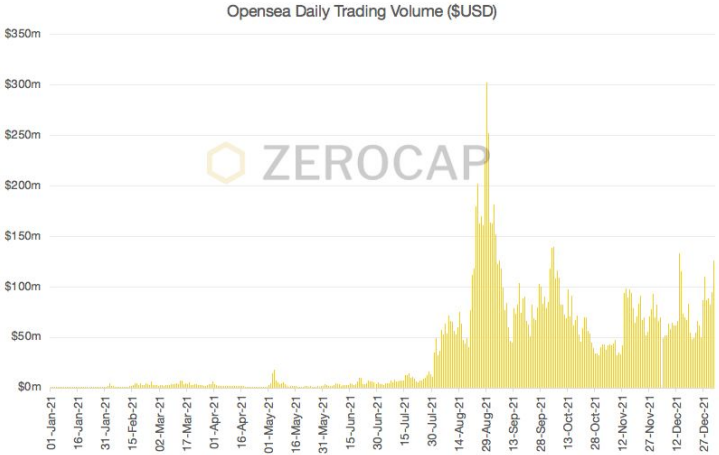
Everyone from celebrities, sports teams through to major public companies had jumped on the NFT bandwagon by the end of 2021. Facebook were one of the more prominent, announcing their rebranding to 'Meta' in October. Although not yet fully defined, the term 'metaverse' appears to be a buzzword comparable to the word 'internet' in the dotcom bubble era. Used just as much as this was the word 'NFT' which ended up being announced the word of the year for 2021 by Collins dictionary. As can be seen on the right, google searches for 'NFT' surged much faster than before.

Behind all of this hype, there are many signals that we are just at the beginning of the NFT evolution. While digital JPEGs are selling for millions of dollars, there appears to be a far more utility being built into NFTs behind the scenes. The short-term price action will, however, be volatile.

Bitcoin ETFs

It is no secret that SEC approval for the first BTC Futures ETF was the main catalyst for the price rallying to All Time Highs. The ticker code for this first ETF was BITO . Its launch saw immense hype - generating nearly $1 billion in trading volume in the first day alone. This was the second largest of any ETF in history. Such hype for the futures ETF has now turned eyeballs towards the next step in ETF approvals by the SEC - a Bitcoin Spot ETF. Many fund managers have submitted applications for a Spot ETF for digital assets but none so far have been successful.





Macro Overview

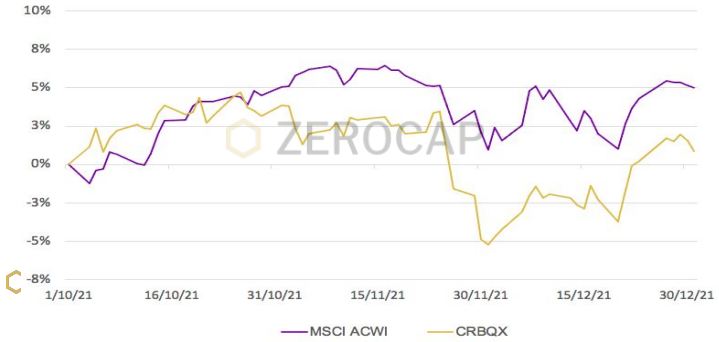
Economic and market Update

The final quarter of 2021 provided evidence to global central banks that current inflation pressures are not transitory but are most likely to intensify during 2022. The latest US inflation figures in terms of Consumer prices are at an almost 40 year high (7% YoY on the headline and 5.5% discounting Food and Energy for the month of December 2021). The latest Chinese Producer price inflation comes in at 10.3% YoY, reflecting global supply-side cost pressure. Due to short-term disruption from COVID influenced staffing shortages and longer-term tightening in the job market, wage inflation is a central concern.

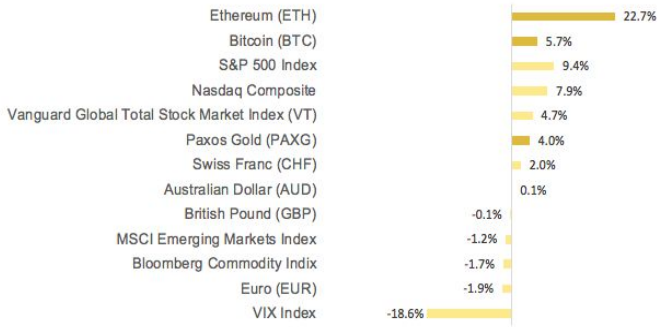
Despite the immediate default risk for Chinese property developer Evergrande Inc subsiding for now, several property companies in China with liabilities to international investors have fallen behind on their debt servicing. Yuzhou group, with bond payments totalling USD 585 million due in 2022, are currently negotiating with creditors for deferral of repayment. With total outstanding liabilities of more than USD 5 billion, Fitch's recent downgrade of the company from single B to CCC is representative of the market's unease.

There was also ongoing geopolitical concern surrounding Russia's 100,000 plus troop buildup on the border with Ukraine. Initial negotiations between Russia, NATO and the US were "unsuccessful".

MSCI ACWI vs Commodities quarter term cycle



2021 Q4 Multi-Asset Class Performance



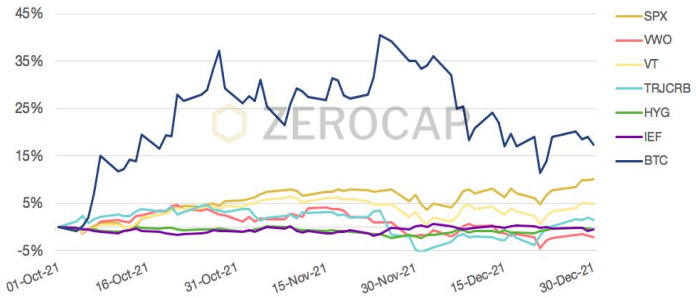
S&P 500 vs Commodities long term cycle

Economic and market Update (Continued)

The Nasdaq index touched an all-time high in December with more than a 13% gain for the quarter. While the FED and central banks from other developed economies maintained their dovish stance, the assumption was that the low-interest-rate environment would maintain its course. By the end of 2021, a major change in the message delivered by the majority of central banks took place expressing that inflation was not as transitory as previously hoped and that unwinding would likely occur sooner than anticipated. The market began pricing in much earlier interest rate normalisation, and panic in the bond market ensued. By the end of the Christmas break, the ten year US Treasury yield had climbed from a year-end close of 1.51% to a high of 1.81%. Four rate hikes are now priced into the 2022 USD curve, and central banks are genuinely "behind the curve" once again.

The final quarter of 2021 saw the first major institutionalisation of the cryptocurrency market. Not only do we have the very first futures-based ETF being listed in the US stock exchange but there was also a flow of interest coming from large corporations, banks and pension funds to explore the possibility of portfolio allocation into the space. Most cryptocurrency prices hit all-time highs in November, with the entire market cap jumping above 3.0 trillion for the very first time. Suddenly, BTC and ETH were a part of the addition for alternative allocation outside of the risk parity constituents of stocks and bonds.

Intermarket Cumulative Return



This chart maps the performance of cross asset markets represented by global and EM stocks, Commodity prices, Treasury bonds and High Yield Corporate debt.

Market Index:
SPX: US S&P 500 index

BTC: Bitcoin / USD

IEF: iShares 7-10 year treasury bond ETF

HYG: iShares High Yield Corp. Bond ETF

TRJEFFCRB: Refinitiv/CC Commodity Research Bureau Index

VT: Vanguard Total World Stock Index ETF

VWO: Vanguard Emerging Markets Stock Index ETF

Derivatives

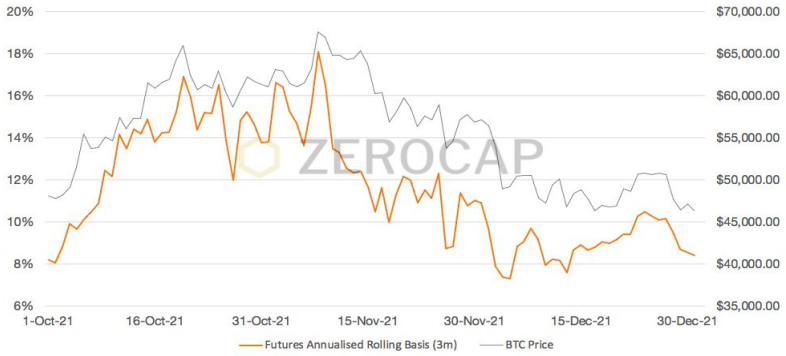
Futures

Basis implied yield for the final quarter of 2021 peaked at 15% on front-end curves, then collapsed towards 7% annualised by year-end. There were many more calendar spread opportunities going into year-end as liquidity on longer-dated contracts dried up, and perp funding dropped to a negative implied annual rate at one stage. It had become a leverage basis paradise if you were able to capture the production of a basic structure consisting of long perp contract at zero to negative funding against 8-10% basis implied yield.

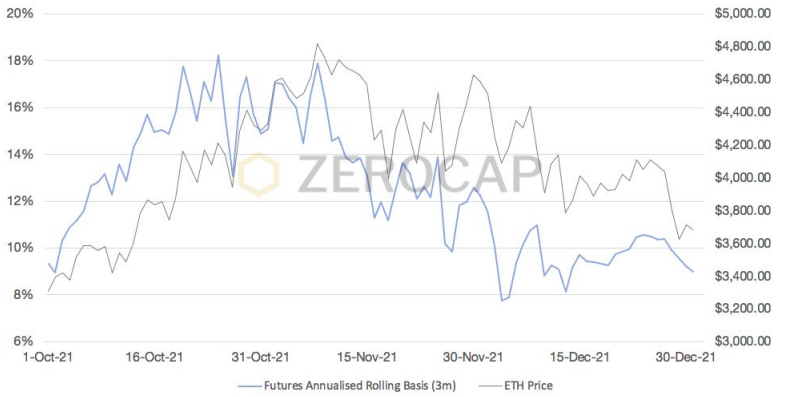
Options

Options implied volatility collapsed below actual vol towards the end of 2021. Term structure throughout maturities saw a collapse in IV across the spectrum, with the entire curve dropping in unison. BTC skews steepened out with longer-dated OTM calls in high demand. The drop in IV provided opportunities to long vega and hedging structures for the coming calendar maturities for bearish scenarios. Deribit DVOL index for BTC began the quarter in the mid-80s but saw a spike above 95 at the beginning of December before collapsing towards the mid-70s by the end of 2021. While the ETH DVOL index was relatively higher, trading at mid 100 at the start of the quarter, rising to a high of 113 by December before dropping towards the low 80s by year-end. The introduction of institutional interest in the DeFi structured products space had played a hand in IV compression. Relative to traditional fixed income, equity or FX vega opportunities, cryptocurrency vol spread provides extremely interesting yield enhancement structures.

Bitcoin Annualised rolling basis (3m)



Ethereum Annualised rolling basis (3m)

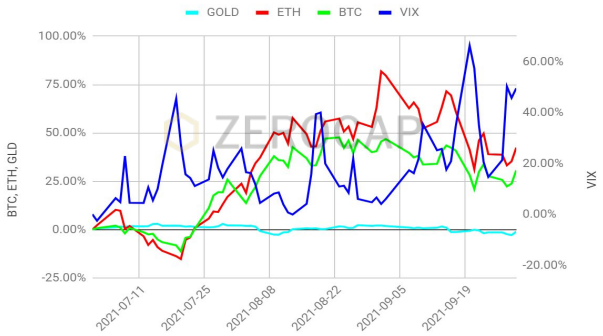


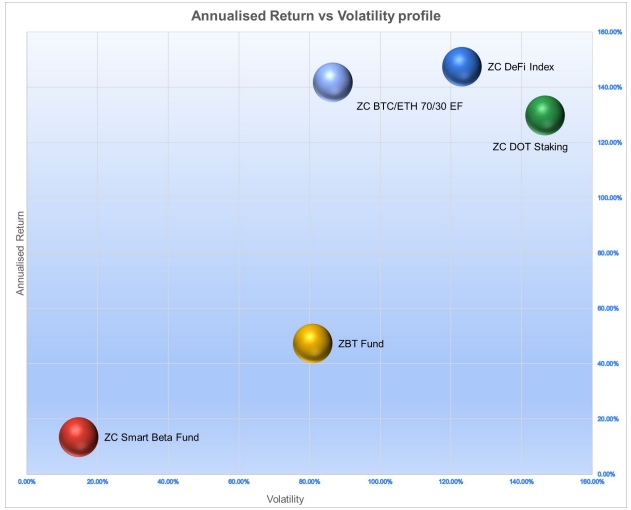
Portfolio Analysis

The final quarter of 2021 was dominated by window dressing and profit-taking activities. After achieving record-high levels in November, the entire cryptocurrency space experienced profit-taking pressures due to the “buy the rumour and sell the fact” trading approach. The tempo started strong into the quarter as anticipation for the first Futures based BTC ETF went live in the US. Talk of institutional allocation into the cryptocurrency asset market led to a speculative push for active FOMO effects. Even though traditional institutional money was actively analysing the prospect of allocating into this space, the reality was, the actual money flow was yet to happen this year. Following a brief elevation into the USD 3 trillion market cap, momentum weakened, and we settled the year at USD 2.4 trillion.

Despite some profit-taking activities in both the bond and equity market at the beginning of December, pre-holiday season portfolio flows were dominated by window dressing trading in thin liquidity. The Nasdaq index closed the quarter up 8%, while 30 year UST yield dropped 13 bp to provide a strong valuation for Risk Parity portfolios (at least until the start of 2022). While volatility was a prime topic amongst portfolio allocation concerns, 2021 has been a fruitful year for products in the Zerocap offering throughout the entire variance spectrum (ref. Annualised Return vs Volatility profile chart on the RHS).

Quarterly performance vs risk (volatility)





Portfolio products:
ZDS: Zerocap DOT Staking

70-30: Zerocap BTC/ETH 70/30 portfolio

DeFi: Zerocap DeFi Index

ZBT: Zerocap Bitcoin Trust

ZBP: Zerocap Smart Beta Fund

Zerocap Fund Performance

Performance of Zerocap Products

ZBT and Smart Beta

The Zerocap Bitcoin Unit Trust and Smart Beta performed strongly through the first half of Q4. This was on the back of bullish news that the SEC had approved a futures ETF for the asset. Both the Unit Trust and Smart Beta, followed Bitcoin in rallying to All-Time-Highs in early-November. While both Funds finished the quarter in the negative, Smart Beta's robustness during periods of drawdown was reaffirmed during Q4 - where ZBT fell by -18.89%, Smart Beta was only subject to a -3.69% reduction.

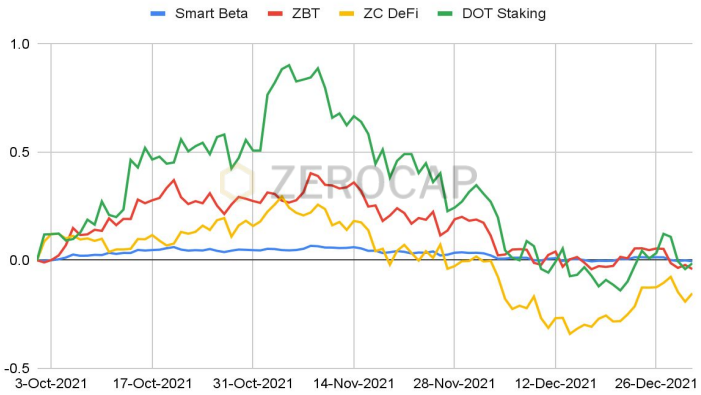
ZC DeFi

Q4 proved to be a volatile period for the DeFi sector. Slower DeFi activity on Ethereum's network was inevitable due to higher fees. Further, the governance rights tokens appeared to be undervalued. While the quarterly performance of the DeFi Index was underwhelming, 2021 as a whole will always be viewed as a monumental year for the DeFi Space.

Polkadot (DOT) Staking

The announcement of Parachain Auctions and therefore the official launch of the Polkadot network was an important milestone reached for Polkadot in Q4. This was bolstered by altcoin tailwinds - the outperformance of layer-one blockchains continued into the first half of Q4. Unfortunately the heavy selloff in crypto as a whole meant that Polkadot saw a reversal to its price mean heading into the end of the year. In terms of staking rewards, Zerocap has maintained its 10.5% reward rate on Polkadot Staking since the inception of the product.

Quarterly performance of Zerocap Products



	Smart Beta	ZBT	ZC DeFi	DOT Staking
October	4.68%	27.39%	15.87%	50.72%
November	-1.24%	-7.14%	-13.98%	-12.68%
December	-3.69%	-18.89%	-15.01%	-25.09%
Q4	-0.43%	-4.06%	-15.29%	-1.41%
2021 Total	**13.80%**	**59.42%**	**191.18%**	**266.00%**

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ZEROCAP

Digital Asset Firm
for Private Clients

Contact

hello@zerocap.com

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