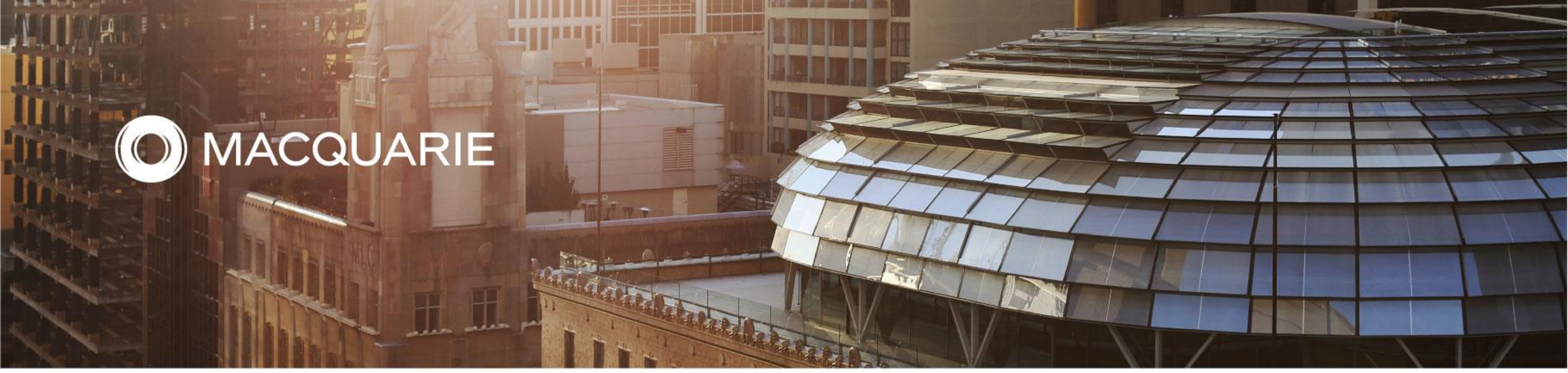


Investment Strategy Update #126

Cryptocurrencies: The tide goes out

- Cryptocurrencies have suffered dramatic declines as global liquidity conditions have tightened, much like every other growth and/or rate sensitive asset throughout 2022 as rising inflation has driven the fastest policy tightening cycle in decades.

- The size, breadth and timing of the decline in crypto assets while inflation has been rising, risk assets have been falling and geopolitical uncertainty spiked, has removed many of the positive arguments for crypto investing. In addition, the recent failures of several crypto exchanges / asset managers have highlighted the gap between the pace at which the market has grown and the regulatory framework.

- While the crypto market is unlikely to pose a systemic threat to the global financial system, recent price declines and operational failures have undermined its value and functionality and raised the need for broad-based regulation. Until then, we think it will be hard to build widespread confidence in the asset class and this is likely to keep many investors on the sidelines.

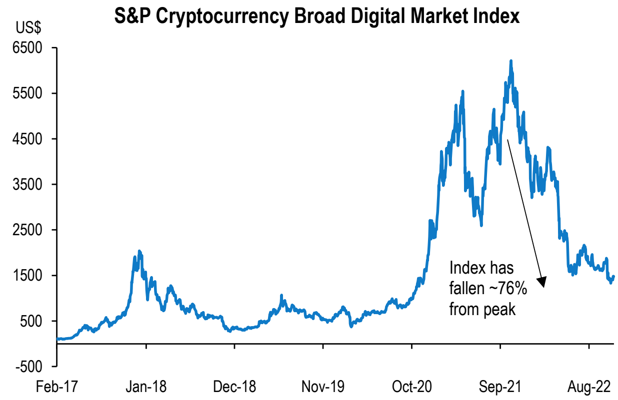
- We have never recommended crypto as a core portfolio holding and this has not changed. We believe it remains highly speculative and beholden to liquidity and sentiment shifts (*see Investment Strategy Update #75: Bitcoin on verge of becoming a more mainstream investment option*). For investors seeking a hedge against tail risks, we think gold / selected commodities are a better hedge against inflation and hedge funds / private assets for lower correlated returns.

The tide has gone out on crypto assets

Crypto markets have seen their popularity skyrocket in recent years, fuelled by the growing accessibility and acceptance of crypto assets which had led to their increased adoption by both retail and institutional investors.

However, just as the attraction of crypto assets has increased, so too has the correlation with traditional risk assets such as equities. This has been demonstrated over the past year where the peak in crypto assets and the subsequent decline has been closely aligned with that of other liquidity-driven risk assets (including housing). As the tide has gone out on crypto assets, the size of the market has fallen by more than US$2tn (more than a 70% decline from the November 2021 peak).

Cryptocurrencies have fallen ~76% from their peak

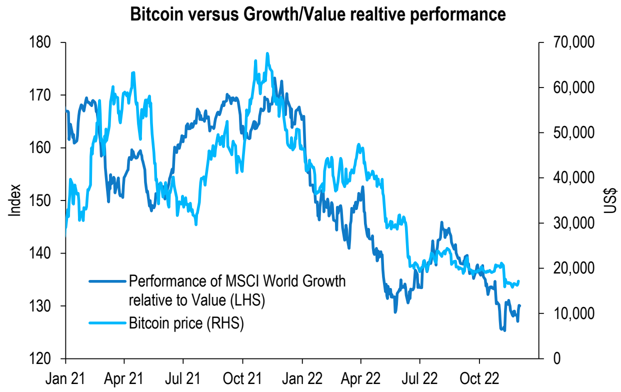


Source: S&P, MWM Research, December 2022

Crypto has provided few of the “desired” benefits to portfolios

Crypto assets have acted just like other risk assets through 2022. Broadly speaking, their high corresponded with the peak in growth assets (rather than inflation) and their subsequent decline has been highly correlated with rising rates and tightening liquidity (and more recently sector specific failures/bankruptcies). In short, crypto assets have failed to provide many of the roles that investors had thought they would:

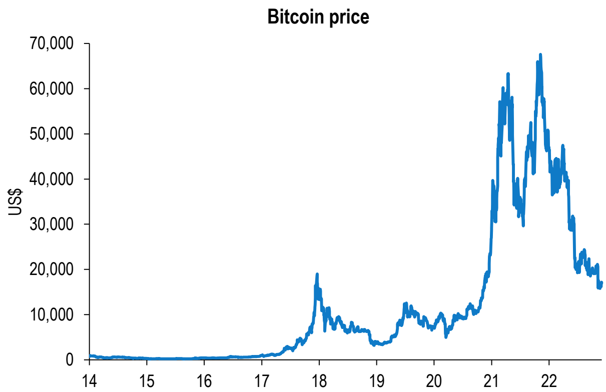
Bitcoin's fate similar to that of 'growth' stocks



Source: coinmarketcap.com, Factset, MWM Research, December 2022

1. Crypto assets have not been a good 'store of value': The significant price falls of cryptocurrencies has brought into question the notion that crypto assets can be an effective "store of value", with Bitcoin, the largest crypto currency by market capitalisation, suffering a ~75% decline from its most recent peak.

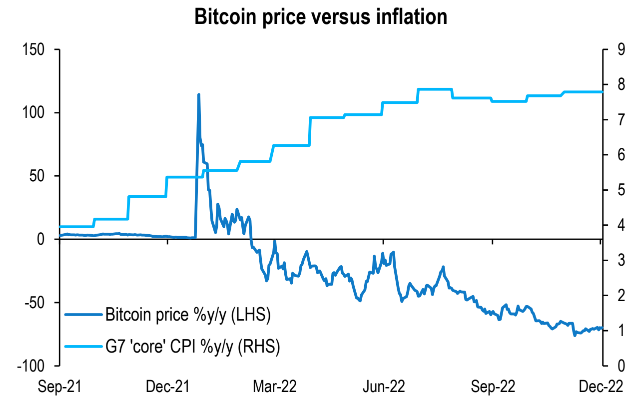
Bitcoin (along with very nearly every other cryptocurrency) has collapsed



Source: www.coinmarketcap.com, MWM Research, December 2022

2. Crypto assets have not been a good hedge against inflation: One of the most common arguments for cryptocurrencies such as Bitcoin was being able to provide a hedge against inflation due to their fixed supply and therefore "scarcity" value. However, Bitcoin has failed its first big inflation test, with the price peaking around the same time G7 inflation broke out above 4% for the first time since 1992.

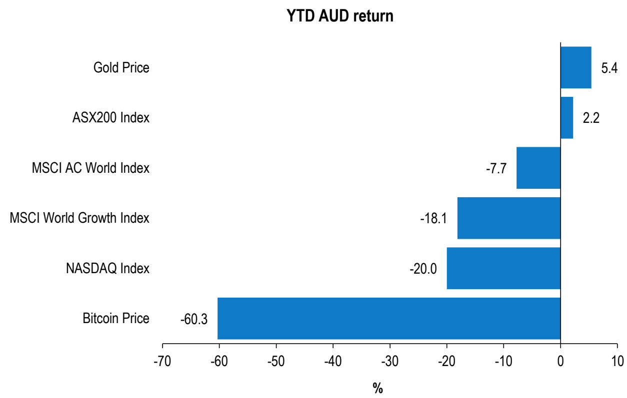
Bitcoin price has fallen as inflation rose



Source: coinmarketcap.com, Factset, MWM Research, December 2022

3. Crypto assets have been a poor source of 'uncorrelated' returns: Crypto assets have fallen sharply at the very time diversification has been needed most. Unfortunately, including crypto assets in a diversified portfolio would have worsened the risk-return outcome. By comparison, gold seems to have displayed some resilience year-to-date relative to other asset classes and would have dampened portfolio losses (even taking into account its 12% fall from its February peak).

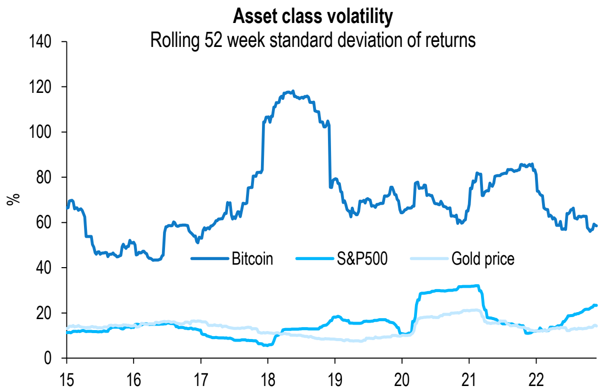
Crypto assets have underperformed traditional assets YTD



Source: Factset, MWM Research, December 2022

4. Crypto assets have been highly volatile: Bitcoin's price volatility has been around 5x the volatility of US equities and around 6x the volatility of gold. Furthermore, its volatility has not been decreasing. Because Bitcoin supply growth is fixed, its supply is not impacted by its price (i.e., a higher price does not create more Bitcoins). This is a key difference compared to gold, where an increase in price will likely drive an increase in supply (as miners are incentivised to extract more gold). This inelasticity of the supply of Bitcoins with respect to its price means Bitcoin's volatility is likely to remain high (especially relative to gold which it is supposedly an alternative).

Crypto assets remain highly volatile relative to traditional assets



Source: Factset, MWM Research, December 2022

Crypto assets are high risk and speculative

Regulatory risk is, and always has been, one of the biggest risks overhanging the crypto market. Although the risks of financial instability arising from crypto assets have thus far been small, they have the potential to increase if regulation does not catch up and if crypto assets become more embedded within individual, corporate and even government balance sheets.

2022 has demonstrated that the current "light touch" regulatory approach towards the crypto market needs to change, which has been illustrated through recent events such as China's blanket ban on cryptocurrency transactions. Other countries have also banned cryptocurrencies, including Algeria and Bolivia, while many more have imposed restrictions of various kinds.

In addition, recent failures / scandals in the crypto industry have further heightened investor and regulatory pressure on crypto entities to tighten corporate governance. Moving forward, we expect further initiatives to be introduced that will work to align the regulatory framework of crypto markets to what is in place for the traditional financial system, such as improving investor and asset protections, calls for greater corporate transparency and governance and the regulation of exchange activities. However, this will take time and until confidence is restored, crypto will remain on the edges of the investment spectrum.

Crypto is not a core investment holding

Until there is greater clarity or progress towards putting regulatory frameworks in place, crypto assets remain vulnerable to ongoing market, operational and regulatory risks that make it difficult to justify for a more core holding in portfolios. While it has recently become more mainstream, the latest issues have served as a reminder that this asset remains (largely) unregulated, highly speculative and liquidity driven.

For investors seeking a hedge against tail risks, we think gold / selected commodities are a better hedge against inflation and hedge funds / private assets for lower correlated returns.

Macquarie WM Investment Strategy Team

This report was finalised on 5 December 2022.

Recommendation definitions (Macquarie Australia/New Zealand)

Outperform – return >3% in excess of benchmark return

Neutral – return within 3% of benchmark return

Underperform – return >3% below benchmark return