WHY CRYPTOCURRENCY ETPS MAY BE GOOD FOR INVESTORS

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The world of investing has changed dramatically in the last decade. While the Exchange Traded Product (ETP) industry is now almost 27 years old, the 2009 financial crisis was a lightning rod that drew attention to specific benefits that ETPs bring to investors.

History is riddled with stories of financial booms and busts. Those bubbles are generally led by various forms of irrational exuberance about specific assets -- Tulips in the early months of 1637 and Internet stocks at the end of the 20th century, for example. But the financial crisis of 2009 was different. It was not a product of irrationality on the part of investors, but a crisis of transparency. The world suddenly realised that non-transparent investment products -- where the underlying exposure and related risks are not known and understood to the general market -- can become weapons of mass destruction to our entire financial infrastructure. The subprime mortgage crisis that led to this potential disaster was the final straw driving investors to the world of transparent investment vehicles, spearheaded by the ETP wrapper. This was the catalyst, leading to the rapid adoption of ETPs as investors of all sizes sought to better understand the risks within their portfolios, which could then be properly modelled and assessed. Today, ETP assets stand above 5 trillion USD globally.

ETP benefits including transparency, liquidity, exchange listing and product standardisation are now table stakes to developing and managing safe investment portfolios. These benefits have been brought to assets classes beyond just equities, including fixed income, commodities and currencies -- all significant components of the toolkit of a well-diversified portfolio.

Cryptocurrencies are potentially the next asset class to benefit from the transformation of assets when they are brought to investors in the ETP wrapper. It will enable investors to make rational assessments and judgements about whether to incorporate this new asset class into their portfolios. The ETP wrapper will add new dimensions to the crypto universe including institutional class custody solutions for all investors, easier trading incorporated into standard brokerage and account maintenance procedures, more liquid and transparent trading and a broader array of more sophisticated market participants entering the arena for these products.



Below, we will review each segment of perceived ETP benefit and what they bring to the crypto market. Then we'll review some examples of ways that ETPs have changed the investing universe for investors, enabling the creation of more well-balanced portfolios in a less expensive, safer and more streamlined manner. Finally, we'll discuss some potential concerns that may be slowing down full regulatory approval for the incorporation of cryptocurrencies into traditional ETP wrappers.

REVIEW OF THE BENEFITS OF AN ETP HOLDING CRYPTOCURRENCIES

There are four components of the ETP wrapper that provide core investor benefits.

ETPs provide for portfolio transparency daily. This has wide-ranging positive ramifications. ETPs tend to bring a centralisation of liquidity to asset classes. They draw investors of many types into the same structure, creating a centralised core of liquidity which sometimes even surpasses that of the actual underlying asset because of the many different types of uses for the structure.

Product standardisation is the next core component of the ETP structure which provides for a variety of benefits that we refer to as structural alpha. The ETP structure itself and its exchange listing enables investors to evaluate a range of different investments across similar metrics enabling them to add alpha to their portfolios through the use of the more efficient structure, thus adding a measure of outperformance because of the investment wrapper. Lower fees generally as compared to more legacy style investment products benefit investors and are a core component of the structure.

Transparency is a core component of the ETP structure¹. In a cryptocurrency ETP that transparency is critical, offering a core measure of confidence for investors enabling them to log into an audited website from the issuer showing exactly how many actual coins are represented by the outstanding fund shares. This is something that is done as standard practice in Gold ETPs daily and provides an incomparable measure of transparency. In addition, there's the ability for all investors to regenerate NAV values, further confirming fund valuation. Nothing compares to full transparency of holdings in providing investors a measure of confidence that what they think they are buying is clearly represented by the product in their portfolio. Portfolio transparency also has a volatility dampening effect on fund shares compared to underlying holdings. Volatility is often driven by the unknown impacts of market news. ETPs are wrappers of assets, generally holding equities, bonds, commodities or currencies in various configurations. The underlying assets that the products hold, drive the valuation of the product and hence its trading price in the market. Assumptions about those potential holdings can lead to product pricing having a potential leading or lagging impact on the market for the underlying assets, whereas a full understanding of the assets in a fund, makes it clear to investors that the price of the underlying assets and the transaction costs involved in attaining or disbursing those assets are the sole determinants in fund pricing. This feature has enabled ETPs to trade at or near their fair value since first listing in 1993. And it will continue to enable funds to trade at the value of their underlying assets removing any risk of dramatic premiums and discounts. It's a simple calculation for investors to understand -- the underlying assets in the fund and the costs of attaining and storing those assets, plus any additional management fee, can easily be calculated to equal the price of the fund in the marketplace.

¹ Up until April 2019 US listed ETPs, both active and index tracking, were required to make their holdings available on a daily basis. In April 2019 the Securities Exchange Commission approved a new structure allowing the creation of an ETP-like product with non-disclosed holdings, but because of the lack of assets or interest by investors in this type of product, we are excluding those products for the purposes of the discussion on transparency. Only time will tell if a non-transparent structure has an impact worthy of investor asset, and what benefits of that structure may be apparent.



Liquidity is the most discussed topic regarding the ETP structure. Whenever there is a negative article written about ETPs, at some point it focuses on ETP liquidity being unsustainable and having a high potential of leading to a market event in the mysterious future.

A clear understanding of how the ETP structure works and the liquidity that develops in asset classes that were previously considered to have low liquidity is important, especially when considering how cryptocurrency ETPs will aid investors by aiding in the growth of a centralised liquidity pool for trading and valuation of crypto assets. The liquidity of an ETP is made up of four components: trading volumes of the underlying assets, trading volumes in the actual ETP, trading volumes in any derivatives available on the underlying asset class, and potential liquidity provided when using other correlated investment vehicles in trading strategies.

To consider a hypothetical bitcoin ETP we could take the aggregated volume across the top exchanges and add to that the value of the bitcoin futures on the Chicago Mercantile Exchange (CME). In Figure 1, we can see the bitcoin 30 Day average notional traded across all exchanges and the average daily volume in notional terms of the bitcoin futures.

FIGURE 1: BITCOIN 30 DAY AVERAGE NOTIONAL TRADED ACROSS ALL EXCHANGES / AVERAGE DAILY VOLUME IN NOTIONAL BITCOIN FUTURES

| EXCHANGE | 30D AVG. DAILY NOTIONAL |
|-------------------------------------|-------------------------|
| Coinbase | \$ 130,798,844 |
| Bitfinex | \$ 104,433,850 |
| Bitstamp | \$ 77,015,256 |
| Kraken | \$ 67,553,342 |
| Bit-x | \$ 30,214,279 |
| All Others | \$ 37,753,372 |
| Total 30D Avg. Daily National | \$ 447,768,943 |
| CME Futures 30D Avg. Daily Notional | \$ 84,882,216 |
| Total 30D Avg. Daily Notional | \$ 532,651,159 |

Source: Bitcoinity.org. 15 May – 15 June 2019. Historical performance is not an indication of future performance and any investments may go down in value.

In ETP terms, these numbers represent the base layers of trading liquidity, that of the underlying asset and that of any derivatives available on the assets. General beliefs of exchange-traded instruments hold that you can potentially trade 10%-25% of the daily average traded value without impacting movement of the asset on any given day. So approximately \$53 million to \$133 million USD in notional could expect to be traded on any given day without market impact. This would be the Implied Liquidity of the theoretical ETP. This is further complicated by the fact that these notional amounts are aggregated across multiple exchanges requiring a higher level of sophistication for consolidating trading and potentially higher transaction costs than if we had a single unified product in which to consolidate the activity. An important nuance then arises from the use of the ETP structure. The two other components of potential ETP liquidity: shares of the ETP trading in the market, and liquidity provided against a variety of other correlated trading strategies, leads to an increase in potential liquidity available in the product.

Those other components of liquidity enable ETPs, as a central liquidity pool, to occasionally trade far in excess daily than might be expected based on the trading volume of the underlying assets alone. An example is the US listed ETP based on gold mining stocks ². This ETP is modelled on a basket of stocks focused on the gold mining sector.



There are no futures contracts or other derivatives based around these stocks, so you can take their Implied Liquidity based on a 25% reduction in average daily notional of \$94 Million USD as a good approximation of what the underlying assets imply that could be traded on any given day. This is similar to the numbers we see for actual bitcoin, as detailed above. But if we look at the actual ETP trading notional, we can see that the fund trades approximately \$850 Million USD per day, significantly larger than might be expected from the underlying assets. The addition of trading strategies and correlation trades based around any variety of views of gold and relationships to mining stocks and the implementation of a centralised vehicle for implementing those strategies in the ETP are expected to lead to much greater volumes. This phenomenon of centralised and increased liquidity on assets happens frequently in the ETP market, as they act as centralised pricing and trading venues for asset classes that might have been difficult to access before the introduction of the structure.

Additionally, centralising trading in the ETP structure on a regulated set of exchanges could enable professional ETP liquidity providers to act as consolidators of the many sources of liquidity and strategies around cryptocurrencies and provide centralised pricing and institutional size liquidity in the products. This would benefit all market participants across the spectrum while also providing clear and unified pricing for the asset class.

Product standardisation is a benefit provided by the ETP wrapper to the marketplace that would benefit investors in cryptocurrencies. There are a wide variety of perceived issues with the crypto-currency asset class with the two most prevalent being hacking attacks on investor holdings and different pricing on different exchanges with inconsistent volumes across those same exchanges. In the near future, many of the largest traditional brokerage firms may be offering the ability to transact in cryptocurrencies alongside traditional assets like stocks and bonds in response to consumer demand for assimilation of holdings for ease of execution, portfolio evaluation and systems management. ETPs would do the same thing for that increasing class of investors managing portfolios of ETPs for their investments. Centralised clearing and the exchange listing that ETPs provide along with coordinated trading hours (while more limited than the traditional systems of Bitcoin exchanges) are more comprehensible for most of today's investors, reducing the need to add an alternative system into their process.

Another way to protect against a main issue with cryptocurrencies is to institutionalise custody and storage. The world appears to be moving towards the digitalisation of everything and generally not backwards to air-gapped storage solutions in offline vaults. Some of the biggest losses of cryptocurrency assets have taken place due to hacking of hot wallets, but also to loss of private keys or forgetting the storage procedure. The addition of an ETP wrapper to the cryptocurrency universe would enable a much broader universe of investors to participate in this burgeoning asset class while at the same time potentially consolidating custody around professional issuers and traders, thereby reducing risks that could be encountered via a decentralised offline storage system. We believe that investors would benefit from these solutions and the standardisation of trading and pricing that would be provided through the introduction of an ETP.

Fees may also constitute one of the major facets of change that would be brought about by the introduction of the ETP structure to the cryptocurrency marketplace.

We have seen massive efficiencies in processes across the asset-management spectrum, from the growth of portfolio transparency, centralised pricing and trading of assets and institutionalised clearing and custody. The ability of the largest asset management firms to bring products to market under current product umbrellas, taking advantage of their economies of scale would lead to a clear decline in costs of accessing the underlying assets for investors. This is well documented in the history of ETP pricing and is likely to continue.

 $^{^2}$ GDX – VanEck Vectors Gold Miners ETP – Avg. Daily Notional – 840,129,164, ETP Implied Liquidity – 94,966,048 as of June 14, 2019 on Bloomberg



GOLD ETPS PROVIDE AN INDICATIVE ROADMAP FOR THE INTRODUCTION OF CRYPTOCURRENCY ETPS

The introduction of Gold ETPs to the marketplace in 2004 provide one of the most relevant examples of making a difficult asset class easier for investors to access.

"Before the gold ETP came along, there were a number of ways to invest in gold, which included buying direct bullion, gold certificates, gold coins, gold savings plans and purchasing shares of gold mining companies. Each of these ways to gain exposure to gold came with its own advantages and disadvantages; however, there was no way of owning physical gold simply and cost-effectively 3." When looking at the cryptocurrency marketplace you can register with digital exchanges that have been created for the purposes of trading these assets if you can figure out which one provides the most safety and transparency of real asset trades, and you can buy and sell the assets. In order to protect your assets from theft, you would then want to find a wallet structure that can be used for storage. Beyond that you will want to find a storage system for your wallet so that it does not get misplaced through the vagaries of life. But the assets are then not protected by the traditional safety of institutionalised custodians. The fees to implement these procedures can potentially create a great amount of slippage on your portfolio performance. And record-keeping will need to be incorporated into your traditional portfolio management infrastructure, further complicating the holdings. The introduction of Gold ETPs helped the gold investment market grow into a market representing almost \$100 billion USD4 in assets that are safely protected in a standardised wrapper enabling investors to utilise gold for portfolio diversification across a variety of strategies. At the same time, the cost, in terms of fees, of Gold ETPs has declined with each new fund introduced over the years as is typical of the ETP universe. The introduction of cryptocurrencies in the ETP structure would also enable investors to find new ways to introduce these assets into investment portfolios while still relying on the safety and security that they have come to expect when using standardised investment products and the reduction of frictional costs that they are currently encountering today.

Concerns about cryptocurrency pricing being led by a potential ETP, we believe, are actually not a bad thing and will potentially help investors similar to the way the pricing of Fixed Income ETPs has given investors a unified, transparent and real-time understanding of the pricing of bonds. This has destroyed the shroud of opaque pricing and investor confusion regarding trading in fixed income instruments. In an asset class with multiple digital exchanges with varying pricing levels, with unclear liquidity and potentially fictitious volumes, the introduction of ETPs to the marketplace would potentially lead to a centralisation of fragmented liquidity and a real-time price indicator representing the true costs of investment at any given time. This would assist investors who navigate a world of multiple regulated and unregulated exchanges. Additionally, the risks of keeping assets in motion to trade across the multiple exchanges is increased along with the nuances of storing cryptocurrencies in non-traditional asset custody mechanisms at a time when the insurance world is not developed and able to protect those same investors.

As we move towards a more digital future and develop methods to create new investible assets, there is an expectation that the traditional market infrastructure and national competent authorities consider these new assets, with a view to enabling investors to access them in ways that are simple and transparent, that promote lower costs and that offer the protections that they have come to expect from the global financial markets.



³ Alchemist Issue Seventy, 10 Years on. The Gold ETP that spawned a 200 Billion Industry, Nik Bienkowski

WisdomTree Gold Landscape 16/7/19 – Total Gold ETP AuM = USD 95,147M

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