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Channels for Exposure to Bitcoin

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To date, much of the discussion in the institutional investor community has focused on “why bitcoin?” If one does arrive at the conclusion that bitcoin is appropriate for their portfolio, often the next logical question is “how” to gain exposure. In this piece, we will discuss the benefits and considerations of different channels for exposure, including third-party custody, passive single-asset funds, futures contracts, and actively managed funds.

A core feature of bitcoin (and digital assets broadly) is the ability for holders to self-custody the assets and establish ownership in the truest sense, removing the need to trust intermediaries that enforce control over the assets. However, many institutions that have fiduciary obligations face regulatory and operational limitations that prevent them from taking direct custody of the assets. Additionally, as it stands, self-custody requires robust security and risk management processes that certain institutions may not feel comfortable taking on or may not have the time and resources to build out.

To accommodate for this reality, the channels for exposure to bitcoin have expanded significantly as institutional interest in the asset has grown. In this piece, we focus on the benefits and challenges of multiple channels institutional investors may consider after deciding they should make an allocation to the asset class.

SPOT TRADING AND CUSTODY

Much of bitcoin's early infrastructure was built to satisfy retail trading demand, with fewer options for robust, secure, institutional custody solutions. Historically, the lack of institutional-grade solutions has been an obstacle for institutional investors looking to gain exposure to bitcoin. In recent years, the challenge has been addressed head on, with multiple digital asset native and incumbent service providers launching institutional focused custody to protect client assets against loss and theft and help them meet their regulatory and fiduciary obligations.

Today, the benefits of gaining exposure to bitcoin by working with a third-party custodian include the maturation of custody solutions, the relatively lower cost of maintaining spot exposure via custodians, and the potential capital efficiency benefits of holding the underlying bitcoin. As a result, spot trading and custody is the most common avenue for exposure. In our 2019-2020 Institutional Investor survey, we found that approximately 60% of respondents with exposure to digital assets hold the underlying asset. Below we outline benefits and considerations for investors to be aware of as they consider gaining spot bitcoin exposure.

POTENTIAL BENEFITS

Institutional grade trading and custody

In recent years, the landscape has significantly matured with the launch of integrated trade execution and custody solutions purpose-built for institutional clientele to facilitate the acquisition, long-term storage and protection of bitcoin by large, regulated investors. Digital asset custodians today operate under a robust operational and regulatory construct. Many custodians regularly undergo operational and security (e.g. SOC) audits, adhering to the standards of any traditional service provider. They may also hold state trust licenses or national banking charters. The satisfaction of these criteria along with other requirements present in the Investment Advisers Act of 1940 has led some regulated entities to interpret that certain bitcoin custodians are qualified custodians. This is important for investors like registered funds who have to hold investment securities with firms that are classified as qualified custodians. Note that bitcoin is not classified as a security, but aligning properly with the characteristics of qualified custodial status still remains important.

Low Cost

Another advantage of spot bitcoin exposure is that it is one of the more cost efficient ways to access the asset given the relatively low aggregate fees (trade execution and custody costs) compared to most other access points we discuss. Annual custody fees and fee schedules range from one provider to another, but most providers are below 50bps of total assets under custody. Depending on the provider, the custody fee rate may also scale as total assets on platform grows. Trade execution costs include trading fees as well as slippage that investors may experience, especially when establishing large positions. In a hypothetical exercise, assuming a per bitcoin price of $50,000, Coin Metrics estimated the total trading cost (trading fees plus slippage) of a total $5 million order carried out in one day to be 0.175% (higher trading costs but lower slippage). The cost of a $1 billion order carried out over approximately two weeks to be 0.225% (higher slippage but lower trading costs).

Selected Order size	$5M	$50M	$1B
Slippage	0.0250%	0.0400%	0.1850%
Estimated Trading (taker) fees	0.15%	0.10%	0.04%
Total Trading Costs (Percent)	**0.1750%**	**0.1400%**	**0.2250%**
Total Trading Costs ($)	$8,750	$70,000	$2,250,000

Source: Data and custom analysis by Coin Metrics (March 2021)

Opportunities for capital efficiency

Apart from self-custody, storing physical bitcoin at a custodian is the most direct way to establish exposure to the asset class. One key advantage of exposure to physical bitcoin is capital efficiency. As bitcoin becomes more widely accepted as an investable asset, borrowers may increasingly leverage the asset as collateral to access liquidity while maintaining their position. Lenders may see value in bitcoin's use as collateral because it offers certain appealing characteristics in that it is liquid, borderless, and facilitates fast and final settlement and real-time price discovery.

CONSIDERATIONS

Technical due diligence

Given the relatively more technical nature of digital asset custody, investors may feel ill-equipped to appropriately due diligence service providers. For example, they may struggle to understand the differences between the hardware security module (HSM) and multi-party computation (MPC) models for securing assets or the pros and cons of omnibus versus segregated custody, among other questions. Thus, certain institutions may prefer to select vehicles that allow them to outsource evaluation of service providers due to technical knowledge and experience gaps.

Fragmented liquidity

Liquidity in digital asset markets is fragmented. Digital assets like bitcoin trade on multiple exchanges globally, of varying volume, transparency, security, and regulatory status. This presents a significant contrast to traditional capital markets, where trading occurs on single exchanges that are required by law to guarantee clients National Best Bid and Offer (NBBO), or the best available purchase (lowest) and sale (highest) prices. Bitcoin exchanges are not subject to such requirements and are unlikely to be able to guarantee “best execution” across all platforms given the level of fragmentation.

However, a growing number of institutional service providers are rolling out integrated execution services and smart-order routing solutions that will allow clients to fund a single account and get access to multiple liquidity providers to attempt better price execution and improve capital efficiency.

Lack of integration with traditional assets

For the most part, institutional investors cannot access bitcoin through the same accounts or platforms they use to access traditional assets classes, creating a fragmented experience in managing exposure across asset classes and presenting operational challenges (e.g. tax and reporting). The ability to integrate bitcoin holdings into traditional portfolios and view the assets together in a single interface would be a win for investors. This may become less of a concern if traditional banks and custodians begin to offer digital assets alongside traditional assets by building, buying, or working with sub-custodians. Tailwinds supporting this trend include interest from institutional clients and prospects, regulatory support from key agencies such as the OCC, and competitive pressure.

PRIVATE PLACEMENT IN PASSIVE FUNDS

Private placement in passive funds provide accredited and qualified institutional investors another channel to obtain long-only exposure to bitcoin. Passive funds are popular because they abstract away the complexities of bitcoin trading and custody and present the asset to investors in a familiar structure. The cost of convenience is the management fee that funds charge investors in addition to the trading and custody fees, which they pass along. This fee not only accounts for the fund managers and operations, but the costs the fund incurs via their elected custodian.

POTENTIAL BENEFITS

Convenience and familiarity

Passive bitcoin funds available to accredited and institutional investors provide a convenient fund structure. Generally, allocators to the fund may contribute assets “in-kind” or contribute fiat and allow the fund to execute transactions on their behalf. Fund managers who may be better equipped to analyze the landscape of service providers also handle due diligence and selection of custody and trading partners. Allocators must therefore place a heightened trust on fund managers to make appropriate decisions related to security, counterparty risk, and more. Passive funds may also provide streamlined and familiar tax and reporting benefits.

Accounting treatment at fair value

A growing number of corporate treasury teams are making balance sheet allocations to bitcoin. One challenge that corporates face in making direct investments into bitcoin is the accounting treatment of the allocation. A direct investment in bitcoin is treated as an indefinite-lived intangible asset on public company financial statements. Thus, the investment is written down to bitcoin’s lowest traded price in each accounting period, presenting a potential headwind to GAAP results – the current market value at each fiscal period is not reflected on financial statements. Corporates may be able to realize a preferred accounting treatment by establishing bitcoin exposure through a passive fund as it may be classified as an “equity investment” that is marked to market each fiscal period, among other potential tax and accounting benefits.

CONSIDERATIONS

Cost

Passive funds generally charge an annual management fee that can range from 50 to 200bps in addition to costs associated with trade execution, custody, and/or fund administration. As a result, private placements are a relatively more costly avenue for exposure, given managers are not providing a significant edge in buying and holding bitcoin. However, the entrance of multiple new players into the passive fund landscape is creating healthy competition and is placing downward pressure on fees.

Redemptions

Investors should also evaluate the differences in redemption frequency and mechanisms among passive bitcoin funds. Investors should determine whether funds allow redemption daily, weekly, or on some other frequency. Additionally, they should understand if they can make redemptions in-kind for physical bitcoin, redemption in cash, or redemption of shares on secondary markets as we discuss below.

PUBLICLY TRADED SHARES

Investors also have the option to gain exposure to Bitcoin’s underlying price movements through publicly traded shares. The Grayscale Bitcoin Investment Trust (GBTC), for example, offers investors an opportunity to gain exposure to bitcoin via an open-ended private trust. The Trust issues shares that trade in the public markets as securities. The shares represent ownership of the Trust, of which the Trust’s sole purpose is to hold bitcoin and track its underlying price movements.

While the secondary market shares are accessible to both retail and institutional investors, accredited investors can also participate in the trust at net asset value (NAV) in daily private placements and sell the shares on the secondary market after a 6-month lockup period.

The primary benefit of gaining exposure to bitcoin through publicly traded shares is that investors do not need to deal with the logistics associated with custodying, transferring, and accepting bitcoin. They can access exposure with the same level of ease and convenience as any other publicly traded security. These investment vehicles can also be traded through a brokerage firm, making it available within some tax-advantaged accounts like IRAs or 401(k)s.

Unlike with private placement passive funds, publicly traded bitcoin exposure is not only subject to a relatively high 2% management fee, but secondary shares may also trade at a premium or discount due to the lack of a redemption mechanism and non-concurrent trading hours and liquidity between the secondary markets and traditional bitcoin exchanges. In the past, GBTC has closed at prices twice the underlying price of bitcoin. Since reaching a high of 137% in late 2017, GBTC’s premium has more recently traded at a discount to NAV. As the competition for structurally similar products heats up, products like GBTC may find it difficult to command a premium like they once did.

BITCOIN FUTURES

Investors may also use bitcoin futures to build long exposure, hedge spot exposure, or establish risk-neutral exposure to bitcoin. Bitcoin futures come in all shapes and sizes, ranging from highly regulated products offered on familiar platforms to more lightly regulated products on offshore platforms that offer significant leverage.

REGULATED, CASH-SETTLED FUTURES

Potential Benefits

Cash-settled bitcoin futures offered by Commodity Futures Trading Commission regulated platforms like CME have become one of the most dominant products satisfying institutional interest. Institutions are attracted to CME's cash-settled futures because they trade on the same platform as futures contracts of other assets. They are regulated by the same agency (the CFTC) that oversees contracts on traditional commodities, creating a familiar playing field.

Another advantage of trading on the CME is that the exchange already has connections to futures commission merchants (FCMs) that institutions use to access and clear other futures contracts. There are more than two dozen FCMs who support the clearing of bitcoin futures including E*Trade, Macquarie, TD Ameritrade, and Wedbush, among others. As FCMs are already integrated, it is easy for them to trade new cash-settled products offered on the platform. The fact that the futures are cash-settled adds another element of convenience as the exchange, the FCMs, and the clients don't need to worry about custody upon physical delivery.

Considerations

The settlement price of cash futures relies on a spot price index. Platforms offering cash-settled futures must reference a combination of robust and regulated exchanges of size that are not susceptible to price manipulation.

Additionally, cash-settled bitcoin futures are generally in contango versus spot, meaning futures trade at a premium to spot and longer dated futures trade at a higher premium to shorter dated futures. As a result, long exposure to bitcoin through futures may be a relatively expensive option, depending on the level of contango. Maintaining long exposure to bitcoin via cash-settled futures also requires rolling the contract before expiration, adding incremental trading costs above the premium.

Generally, futures contracts trade at a premium to account for storage costs associated with holding underlying assets (e.g. physical commodities like gold or oil). Thus, bitcoin futures might trade at a premium to account for the cost of custody. A more likely explanation could be that institutions who face regulatory or operational limitations in acquiring spot bitcoin are willing to pay a premium to access bitcoin futures.

While the premium may be a headwind for participants establishing a long position, it may also be a feature for traders looking to lock in a risk-neutral roll yield by going long spot bitcoin (or shorter dated futures) and shorting longer dated futures.

REGULATED PHYSICAL-SETTLED FUTURES

Potential Benefits

Physical-settled futures deliver bitcoin to contract buyers upon expiration (if contracts are not rolled), which is appealing for institutions who ultimately want exposure to the underlying asset, especially if the contracts are offered by regulated institutions. Additionally, stakeholders don’t have to worry about potential manipulation on underlying spot exchanges at the time of settlement in the same way they might for cash-settled futures.

Considerations

Regulated physical-settled futures have not seen the same adoption (volume and open interest) as regulated cash-settled futures. This could be because FCMs may be unwilling to support these contracts to avoid clearing and settling physical bitcoin transactions. This presents a barrier to adoption by institutions whose counterparties may not support the contracts.

ACTIVELY TRADED FUNDS

Investors may also find value in gaining exposure to bitcoin through an actively managed vehicle. As a transparent, liquid, and volatile asset that trades 24/7, Bitcoin offers a compelling opportunity for active managers to generate “alpha” on top of regular price behavior. While bitcoin’s inability to fit neatly within the framework associated with traditional active management has dissuaded institutional investors from adopting an actively managed strategy, bitcoin offers a unique set of tools that investors can leverage to assess its fundamentals. Specifically, market participants can source data to analyze bitcoin in more depth than is possible with any other traditional asset. In the same way that a government statistical agency publishes data about a country’s population and economy, or a public company publishes quarterly financial statements disclosing growth rates and earnings, Bitcoin provides a real-time, global ledger that publishes data about the network’s activity and inner economics.

The structure of actively managed bitcoin vehicles commonly takes the form of a hedge fund. Fees typically include a management fee (1-2%) and carried interest (10-20%). Lockup periods are longer than alternative vehicles of exposure, typically ranging between 1 and 3 years with quarterly redemptions. The strategies vary widely and include neutral/hedged and arbitrage strategies.
For investors seeking to outperform Bitcoin, an actively managed strategy may be the optimal path.

EXCHANGE TRADED FUND

To date, multiple bitcoin ETF applications have been approved internationally, including in Canada and in Brazil. However, the Securities and Exchange Commission (SEC) in the United States has yet to approve a bitcoin ETF application. While the SEC has previously raised a number of issues in its denial of applications, maturation and institutionalization of bitcoin custody and trading has resulted in a new wave of bitcoin ETF filings in the U.S.

POTENTIAL BENEFITS OF AN ETF

Redemption mechanism

Publicly traded trusts are securities that typically trade at premiums or discounts because there is a six to twelve-month seasoning period during which shares in private placements must be locked up, creating a disconnect between the time supply hits secondary markets and demand. A bitcoin ETF, on the other hand, could allow real-time redemption and creation through authorized participants whose role is to arbitrage ETF shares, when the value of the shares in the secondary market deviates from the net asset value (NAV) of the fund holdings in real time.

Approved product

Certain fiduciaries like registered investment advisers (RIAs) want access to regulated products that address operational limitations they may face (e.g., products that simplify reporting and trading on behalf of many clients). As we have discussed, among the best options today are publicly traded trusts trading over the counter that generally deviate from NAV. However, certain firms may only be authorized or prefer to trade securities offered on national exchanges with strict reporting requirements, offering more visibility and transparency. A bitcoin ETF approved by the SEC that trades on a national exchange would offer such a product with greater protections and disclosures than the vehicles available today.

Accessibility

Additionally, a bitcoin ETF would allow retail and institutional investors to access bitcoin through a low-cost security wrapper that is (1) likely to trade close to NAV for the reasons outlined above and (2) available through traditional brokerage platforms and financial institutions without the hassle of dealing with digital asset exchanges and wallets. The greater transparency and ease of use could usher investment from a greater number of retail and institutional investors. An ETF would provide a vehicle for more conservative retail investors who are uncomfortable or concerned about appropriately vetting newer digital asset service providers and institutional investors who may have similar concerns or be limited in accessing bitcoin through the options available today.

POTENTIAL CHALLENGES FOR ETF APPROVAL

The SEC has raised multiple issues with previously submitted bitcoin ETF applications including concerns about bitcoin custody, manipulation in and surveillance of bitcoin markets, and whether there is a U.S. regulated bitcoin market of significant size. Improvements happen rapidly in the digital asset space, and as a result these concerns deserve to be properly reevaluated.

Bitcoin Custody

Secure custody and trading of bitcoin has been a key concern for regulators. Recent years have offered the necessary time for the development of sound and secure digital asset custody to be built at a quality suitable for institutional participation. Institutions now have a variety of reputable custodians to choose from, which are displaying, iterating and improving their security and robustness with each passing day.

Manipulation, Surveillance and Size of Bitcoin Markets

Bitcoin trades extremely fragmented as exchanges trade 24/7/365 across the globe, but lack the interconnectivity experienced in traditional markets. The development of mature trading venues across spot and derivatives markets has helped create a reliable and regulated market of significant size. As the space has continued its growth, we have seen increased pricing efficiency as large traditional market makers have begun to view the space as worthy of their involvement.

The SEC has yet to opine on a growing list of 19b-4 ETF filings. When the time comes, a decision will hopefully help provide greater clarity into whether regulators view these previously noted concerns as having been properly addressed.

COST OF DIFFERENT CHANNELS FOR EXPOSURE

We enlisted Coin Metrics to compare the cost of establishing different levels of bitcoin exposure ($5 million, $50 million, $1 billion) through the different channels discussed here over ten years – specifically, spot trading and custody, private passive bitcoin funds, and CME bitcoin futures.

This is an illustrative example as investment results cannot be predicted or projected. Past hypothetical performance is no guarantee of future results.

ASSUMPTIONS

Spot trading & custody

We assumed a one-time $10,000 custody initiation fee and an annual custody fee of 35bps. We applied the same total trading costs discussed above – 0.175% for $5 million, 0.14% for $50 million, and 0.225% for $1 billion on Coinbase.

Closed passive fund

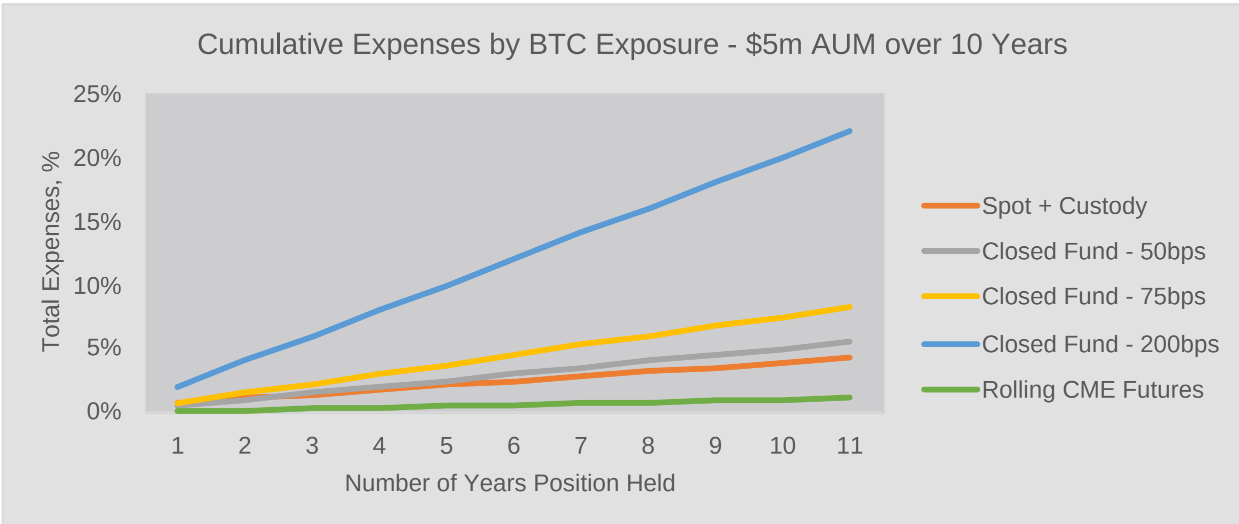
We applied an expense ratio of 50bps, 75bps, and 200bps to capture the fees of different closed-end funds available today.

CME bitcoin futures

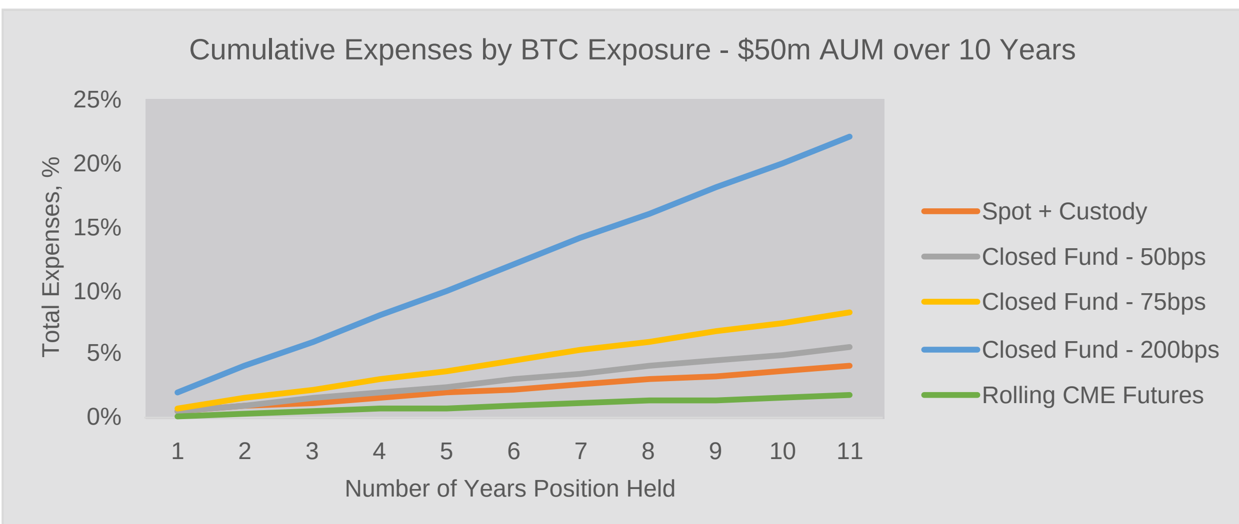
Maintaining a long position in bitcoin with CME bitcoin futures requires rolling the contract multiple times a year when it is approaching expiry. To calculate the trading costs of rolling futures contracts, we assumed the roll occurs quarterly.

HYPOTHETICAL RESULTS

CME bitcoin futures presented the most economical vehicle to establish a $5 million position and a $50 million position in bitcoin, followed by spot trading and custody. This was driven by the fact that the trading costs associated with spot bitcoin and bitcoin futures are similar and holding a position in CME cash-settled bitcoin futures does not require the payment of custody fees. However, our exercise did not account for the contango (or premium) of bitcoin futures over spot. Another important consideration when establishing a position via futures is the requirement to regularly roll the position. The amount of time it takes to do so each quarter increases with the position size.

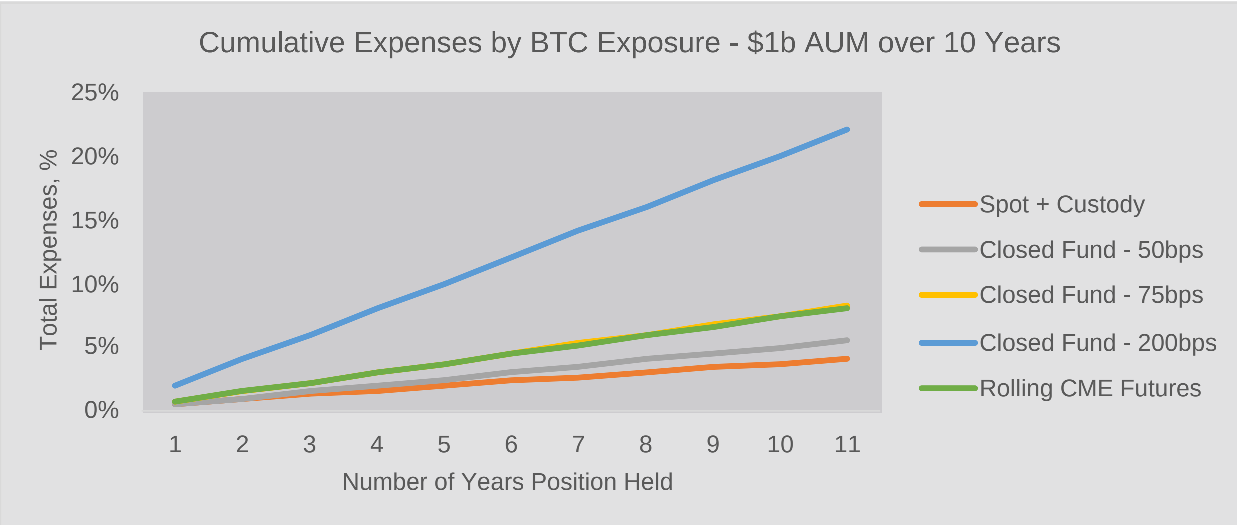


Source: Data and custom analysis by Coin Metrics (March 2021)



Source: Data and custom analysis by Coin Metrics (March 2021)

For the largest position, spot trading and custody emerged as the most economical channel for exposure, followed by the lowest cost private passive bitcoin fund.



Source: Data and custom analysis by Coin Metrics (March 2021)

CONCLUSION

Bitcoin's custody structure as a true bearer asset creates unique challenges for delegated asset managers. This has led to a variety of investment vehicles for allocators to consider utilizing in order to gain exposure to bitcoin. Each option has its own unique tradeoffs regarding custody, cost, and operational burden, among other characteristics to consider. Over time these products have become cheaper, easier to use, and increasingly more efficient. Ultimately regulatory approval of a more traditional investment product, such as an exchange-traded fund, would likely provide an even more competitive landscape that could greatly benefit end investors.

The lack of regulatory clarity and suboptimal nature of some of the existing investment vehicles creates a barrier to entry that is preventing certain would-be investors from owning the asset. For those able to analyze the various tradeoffs associated with the currently available channels for exposure, and potentially make an allocation, the current situation enables an opportunity to be one step ahead of their peers.

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