Grayscale Research | February 2022

GRAYSCALE®

# Reimagining the Future of Finance

Invest in the digital economy with
**Symbol: GFOF**

grayscale.com/GFOF

# Table of Contents




3
5
7
18

# Reimagining the Future of Finance

By David Grider, Head of Research & Matt Maximo, Research Associate

The digital economy is the intersection of technology and finance that's increasingly defined by digital spaces, experiences, and transactions. It is also changing the future of finance by connecting people who are worlds apart. Just as the growth of the Internet reshaped many segments of society and led to the rise of dominant technology companies such as the FAAMGs (now MAMAA*), we believe the evolution of new digital technologies is beginning to disrupt the status quo.

Companies participating in the rapidly developing digital asset ecosystem are enabling a new era of global online trust that, in turn, is creating utility for consumers, reshaping business models, reorganizing competitive dynamics, and redistributing value across industries. Innovative "pick and shovel" companies are seeking to capitalize on secular growth trends, extending well beyond the digital asset ecosystem, which ultimately presents new, exciting opportunities for investors.



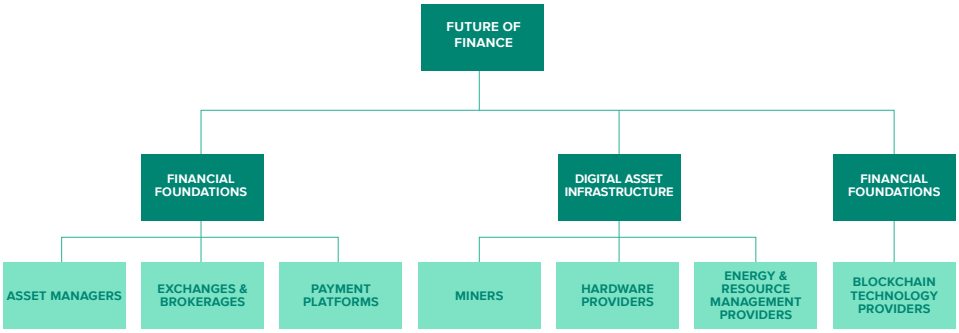


*FAAMG: Facebook (FB) (now Meta), Amazon (AMZN), Apple (AAPL), Microsoft (MSFT), & Google (GOOG) (now Alphabet).
MAMAA: Meta (FB) (formerly Facebook), Amazon (AMZN), Apple (AAPL), Microsoft (MSFT), & Alphabet (GOOG) (formerly Google).

Similar to the current digital asset dynamic, technology companies were considered a specific and distinct industry in their formative years, but eventually grew to touch nearly every part of society. Today, most companies have become technology companies in some form or another. The same dynamic is emerging with digital asset companies that are attempting to transform society by enabling a better financial future: many digital asset businesses that have grown by first capturing industry-specific value have also built technological advantages, established scale, and serve a larger part of the ever-expanding global digital economy.

To capture this opportunity, Grayscale Future of Finance ETF (symbol: GFOF) seeks to track the performance of the Bloomberg Grayscale Future of Finance Index before fees and expenses to provide investors with exposure to the public companies that are driving this fundamental shift across the three major pillars of the Future of Finance: 1) Financial Foundations, 2) Technology Solutions, and 3) Digital Asset Infrastructure (Figure 1).

**FIGURE 1: GRAYSCALE FUTURE OF FINANCE ETF PILLARS**




Source: Grayscale



PLEASE REVIEW IMPORTANT DISCLOSURES & OTHER INFORMATION AT THE END OF THIS PAPER.

"Future of finance" is defined as the intersection of finance, technology and digital assets. Future of Finance Companies rely heavily on the success of the digital currency industry, the development and acceptance of which is subject to a variety of factors that are difficult to evaluate. There can be no guarantee that future regulation of blockchain technology or digital assets will not have a negative impact on the value of such technologies and of the companies in the which the Fund invests. Volatility of digital assets may have a material adverse effect on a Future of Finance Company's business, financial condition, and results of operation. Digital assets are an emerging asset class.

# Digital Economy Pillars

Across these three pillars, companies are spurring the growth of the global digital economy by upgrading the legacy infrastructure that has historically imposed limits on the full productive potential of the Internet. By integrating Bitcoin and other blockchain-enabled digital asset networks into their core business models, we believe these companies are at the leading edge of generating social and economic improvements.

The digital asset segment of the digital economy rose as high as ~$3 trillion in total market value* over the course of 2021. Over roughly the last decade, some of the key infrastructure segments that have enabled the evolution of the digital asset ecosystem include:

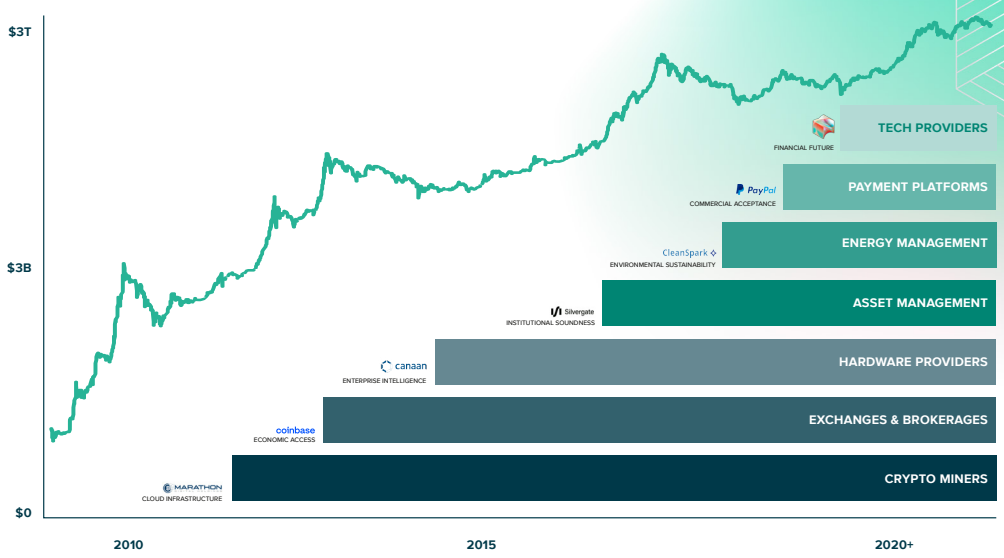
- **Miners,** building out robust, distributed cloud data center infrastructure;
- **Exchanges & Brokerages,** providing access to and financing for the digital economy;
- **Hardware Providers,** manufacturing intelligent, enterprise-grade computing equipment;
- **Asset Managers,** providing institutionally-sound products for accessing the digital asset economy;
- **Energy & Resource Management Providers,** contributing to a cleaner and greener digitized energy grid;
- **Payment Platforms,** expanding commercial adoption of upgraded payment networks; and
- **Blockchain Technology Providers,** developing the software infrastructure for the future of finance.





*Tradingview: $2.9T Total Crypto Market Cap on 11/8/2021

**FIGURE 2: DIGITAL ECONOMY PILLARS ENABLING THE DIGITAL ASSET MARKET**




Source: Grayscale, Date: 7/18/2021 to 1/12/2022

These foundational elments of the digital asset ecosystem resulted in the creation of new businesses, which continue to lay the groundwork for subsequent segments to emerge, driving towards a larger, more accessible, and inclusive asset class. Some examples of these companies have been: 1) miners, such as Marathon (MARA), which secured the network and enabled 2) exchanges, such as Coinbase (COIN), which gave users the on-ramp to finance the ecosystem's growth and created demand for 3) hardware providers, such as Canaan (CAN), which made the network enterprise ready and provided assurance to 4) asset managers banked by Silvergate (SI), which vetted the infrastructure's soundness and invested in 5) energy managers, such as Cleanspark (CLSK), which made the networks more sustainable and ready for 6) payment platforms, such as Paypal (PYPL), which expanded access and enhanced the incentive for 7) technology providers, such as Block (SQ), to invest in software to enable the future of finance.

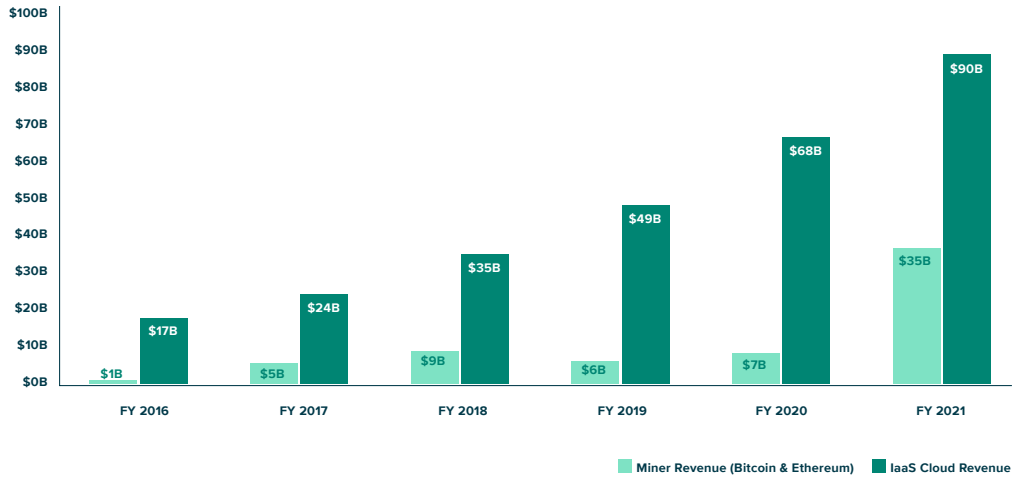
# Investment Opportunities

## Miners

Miners are companies that operate the computing behind blockchain networks to earn revenue from newly issued digital asset supply and fees paid by users. These include companies such as Marathon Digital (MARA), which was founded in 2010, and was an early miner that helped form the backbone of Bitcoin's network. By securing the database and correctly processing transactions, miners have allowed the Bitcoin network to operate reliably 24/7/365 with no downtime for over a decade, creating trust in digital asset infrastructure more generally.

Over the years, miners have come to support many networks, such as Ethereum, by enabling complex computing applications. Today, the mining industry has matured into a highly robust, globally distributed infrastructure network of cloud data centers built for the digital economy. Mining industry revenues from Bitcoin and Ethereum alone grew to ~$35 billion during the last year and are fast approaching the size of the Cloud Infrastructure-as-a-Service (IaaS) market (Figure 3).

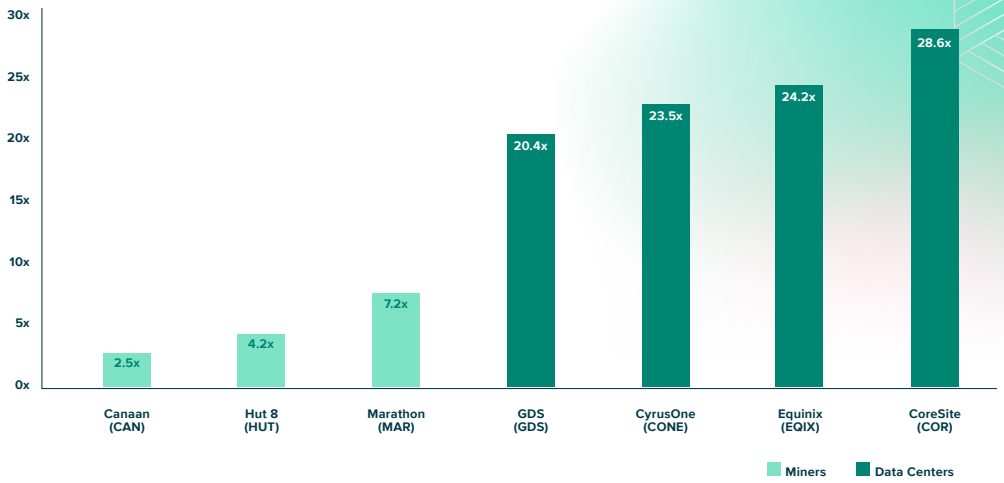
**FIGURE 3: BITCOIN & ETHEREUM COMBINED ANNUAL MINER REVENUE**




Source: Grayscale Estimates, Coinmetrics, Bloomberg, Date: 1/1/2016 to 12/31/2021

Mining businesses have shown strong revenue growth, and have achieved high adjusted Earnings Before Interest, Taxes, Depreciation & Amortization (EBITDA) margins (albeit during market expansion cycles), like cloud providers. However, by comparison, they trade at much lower multiples, possibly due to the earnings volatility of digital asset prices. By demonstrating more consistent revenue from fees as the digital asset networks mature, the mining sector could have room for valuations to rerate toward more traditional data center multiples (Figure 4).

**FIGURE 4: ENTERPRISE VALUE (EV) /
ESTIMATED EBITDA MULTIPLES OF SELECT MINERS & DATA CENTERS**




Source: Bloomberg, EV / Estimated EBITDA (Bloomberg consensus as of: 1/14/2022), EV/EBITDA is a valuation multiple used to determine the fair market value of a company.

## Exchanges & Brokerages

Exchanges & brokerages are platforms that enable customers to buy, sell, send, earn, and hold digital assets. These include companies such as Coinbase (COIN), which launched in 2012 and offered one of the first trusted gateways for accessing digital assets. By providing an on-ramp for purchasing and storing digital assets, exchanges have played a large role in establishing consumer trust in the ecosystem.

Initially, exchanges primarily served as trading brokerages that allowed an increasing number of users to finance the growth of the digital asset market. However, as the market and exchanges have matured, they have come to provide a growing suite of financial services that are enabling greater economic inclusion for many across the world.

Exchanges are giving merchants a new e-commerce alternative to credit cards and other traditional payment options. Digital asset payments have seen strong growth over recent years, and have the potential to be an important solution for all merchants, especially small and medium-sized businesses (SMBs), as well as micro-merchants who are charged the highest fees. These segments represent the majority of U.S. businesses, but are often too small to directly obtain merchant bank accounts. Instead, they rely on additional layers of payment providers that charge more. SMBs and micro-merchants only represent ~17% of U.S. card volumes, but account for ~55% of the net revenue that goes to merchant acquirers/ processors, which illustrates the opportunity for digital asset exchanges and payment providers (Figure 5).

**FIGURE 5: US CREDIT CARD VOLUMES AND FEES BY MERCHANT CATEGORY**

| | U.S. CARD VOLUMES (ANNUAL 2019E) | U.S. SELLERS (SELLER REVENUE) | ACQUIRING NET REVENUE (ACQUIRING NET FEES) |
|---|---|---|---|
| ENTERPRISE | $3.2T | 20K ($100M+) | $1.0B+ (0.01%-0.10%) |
| MID MARKET | $3.0T | 1M ($1M-$100M) | $7.5B+ (0.10%-0.40%) |
| SMB | $0.9T | 3M ($250K-$1M) | $6.0B+ (0.40%-1.00%) |
| MICRO | $0.5T | 20M (<$250K) | $4.5B+ (0.80%-1.20%) |

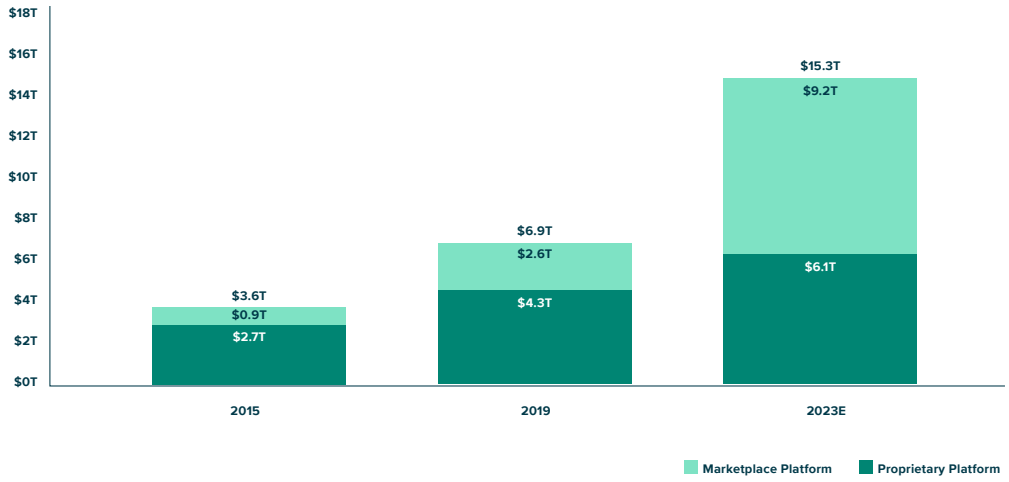
Source: Credit Suisse estimates as of: 1/24/2020, Net fees represent the amount that goes to the acquiring/processing provider less the amount that must be paid to other intermediaries such as card networks or banks, Net represents the approximate net fees that acquiring/processing providers yield from merchants as a percent of their total payment volume.

Exchanges are e-commerce hubs that extend beyond investments and payments. Exchanges are both enabling and becoming new marketplace platforms that could one day compete with Amazon, eBay, Etsy, Shopify, and others that connect merchants and consumers.

By connecting individuals and businesses to Decentralized Finance (DeFi) exchanges, and allowing customers to trade digital goods such as Non-Fungible Tokens (NFTs) on their platforms, exchanges are providing micro-merchants, including individuals within the creator economy, new marketplace platforms that could grow to service greater parts of the digital economy.

Global digital-commerce marketplace platform sales are expected to reach $15.3 trillion by 2023, and exchanges have the potential to capture a greater share of this activity on marketplace platforms, which are expected to grow to $6.1 trillion by 2023 (Figure 6).

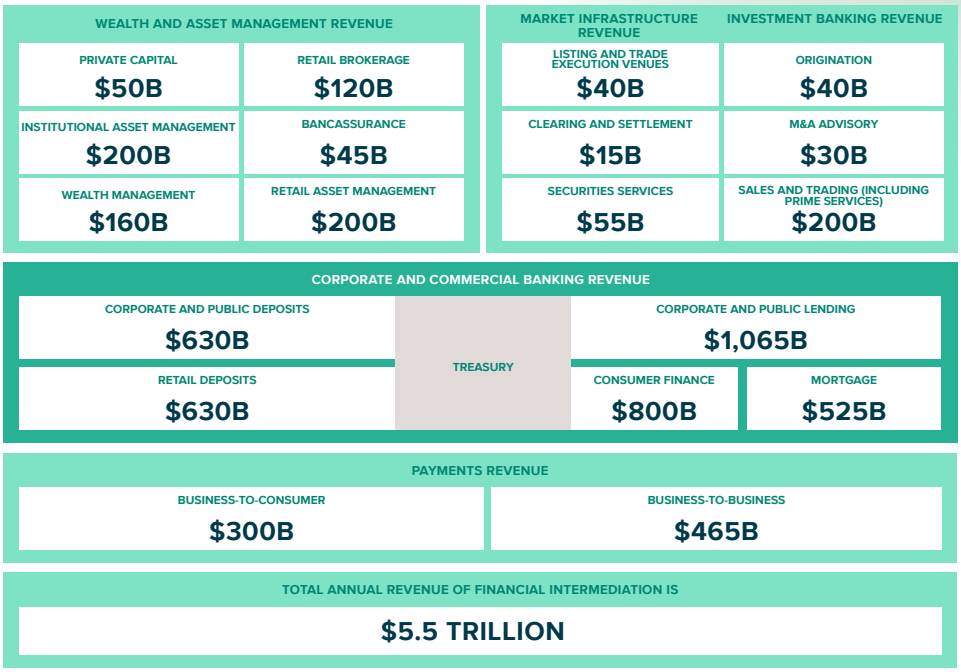
**FIGURE 6: GLOBAL DIGITAL-COMMERCE MARKET PLATFORM SALES FORECAST**




Source: Mckinsey, Date as of: October 2020

Global banking revenues were ~$5.5 trillion in 2019 (Figure 7). Exchanges have built both vibrant capital market systems and younger customer bases for a new era of global digital commerce. As a result, exchanges are positioning themselves to compete across a range of consumer and commercial diversified banking services as the digital economy continues to expand.

**FIGURE 7: $5.5 TRILLION IN GLOBAL BANKING REVENUE ACROSS SEGMENTS**




**Dollar amounts represent global banking revenue by segment ($B)**

Source: Mckinsey, Data as of: 2019

## Hardware Providers

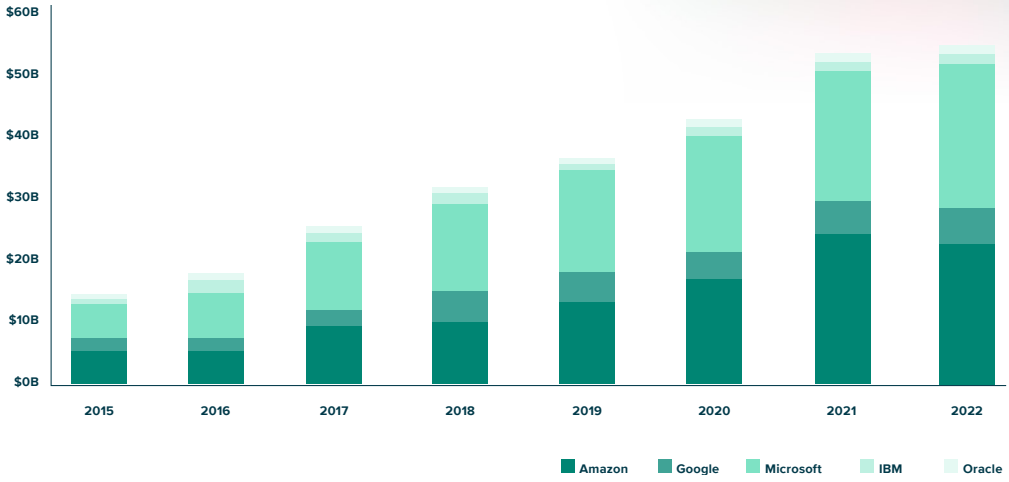
Hardware providers are companies that make servers, processors, and other hardware used for digital asset mining and supporting the broader digital economy. These include companies such as Canaan (CAN), which launched in 2013 and was an early supplier of high-performance mining equipment.

Increasingly powerful computing hardware has enabled enterprises to build trust in the speed and security of the distributed cloud networks that miners operate. Hardware providers are producing enterprise-scale edge computing equipment with artificial intelligence capabilities and greater energy efficiencies. These hardware devices are being used to grow the digital economy in areas such as smart homes, energy management, community, and agriculture.

The distributed cloud has seen strong growth over recent years (Figure 3), and these non-digital asset applications are increasingly overlapping with legacy tech company offerings. Big tech companies operating hyperscale data centers are expected to spend ~$55 billion on cloud-related Capital Expenditures (CAPEX) during 2022 (Figure 8). Continued improvements to and adoption of distributed computing technology could leave room for hardware providers to capture a greater share of cloud CAPEX spending beyond the digital asset mining industry.

The distributed cloud has seen strong growth over recent years (Figure 3), and these non-digital asset applications are increasingly overlapping with legacy tech company offerings. Big tech companies operating hyperscale data centers are expected to spend ~$55 billion on cloud-related Capital Expenditures (CAPEX) during 2022 (Figure 8). Continued improvements to and adoption of distributed computing technology could leave room for hardware providers to capture a greater share of cloud CAPEX spending beyond the digital asset mining industry.

**FIGURE 8: CLOUD-RELATED CAPEX AT MAJOR HYPERSCALE SERVICE PROVIDERS**




Source: Date: 2015 to 2020 (Actual) & 2021 to 2022 (Estimated by RBC as of 9/20/2021)

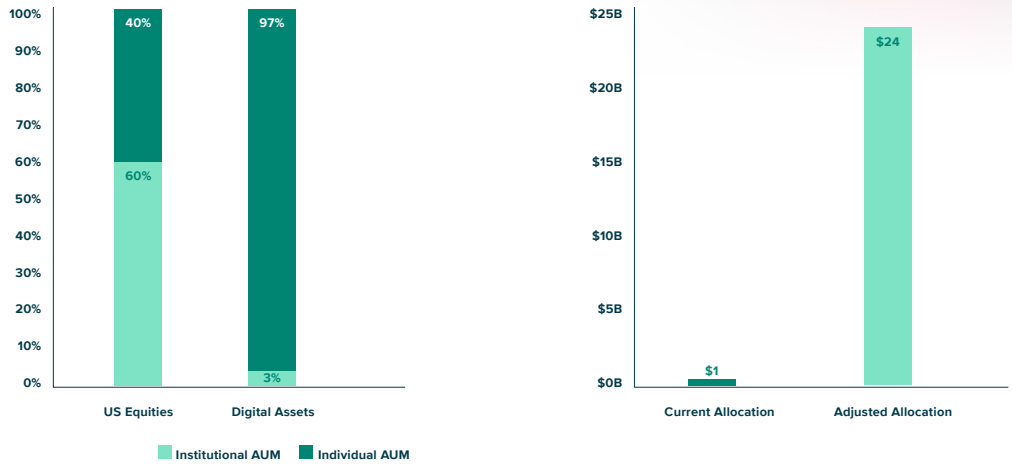
## Asset Managers

Asset managers are institutions seeking to profit from buying, selling, or lending digital assets, or holding a significant portfolio of businesses that engage with digital assets. These include companies such as Silvergate Bank (SI), which started banking digital asset industry companies in 2013 and enabled the emergence of the digital asset management industry more generally. Silvergate created a 24/7 real-time payment network between exchanges in 2017, and started making Bitcoin-collateralized loans in 2020. By offering reliable banking services, investors were able to develop trust in the institutional soundness and compliance of digital asset infrastructure and the fiduciaries investing in the technology.

Over the years, a new class of asset managers have grown on top of the modern banking infrastructure, designed to store and transfer funds across both public blockchain and banking rails, while redefining business models in the process. Future-forward banks are attracting strong deposit – and loan – income growth by moving to open Application Programming Interface (API) models, and are offering clients free real-time payments between digital asset institutions on the banks' networks.

Leveraging this improved infrastructure, digitally-enabled asset managers are arbitraging global prices 24/7, while also creating more efficient capital markets, financing underserved segments, and attracting younger investors that have escaped legacy firms. Asset management revenues from the digital asset economy could grow by ~24x, even if the crypto market value remained flat, by simply shifting from the current individual-dominated ownership mix to an institutional mix in-line with the US equity market (Figure 9).

**FIGURE 9: INSTITUTIONAL & INDIVIDUAL US EQUITY & DIGITAL ASSET OWNERSHIP AND DIGITAL ASSET INDUSTRY ASSET MANAGEMENT REVENUE OPPORTUNITY**

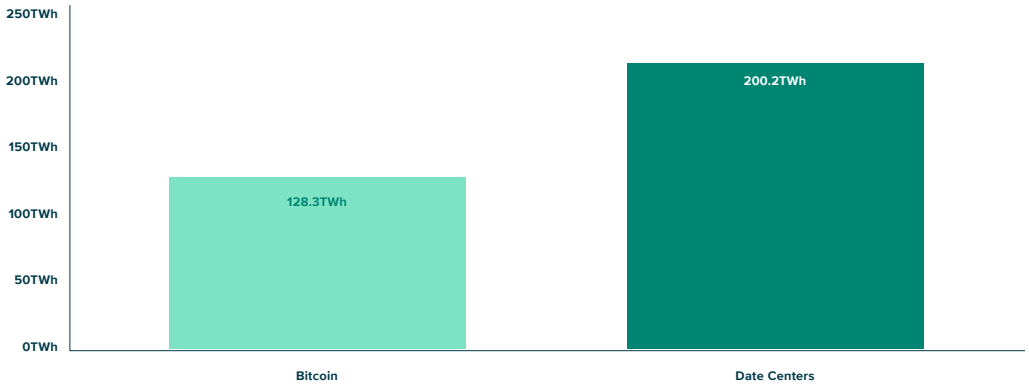



Source: Tradingview, Crypto Fund Research, SIFMA, data as of 9/30/2021, revenue based on 2% management fee applied to total crypto market value of current institutional fund assets and adjusted institutional fund assets based on US Equities 60% allocation

## Energy & Resource Management Providers

Energy and resource management providers are companies that optimize the energy and power required for digital asset mining. These include companies such as Cleanspark (CLSK), which has been designing software for digital asset miners since 2018 and has contributed to building a more environmentally friendly and sustainable digital ecosystem. Over the years, Bitcoin's growing usage and value has led to an increase in the network's total energy consumption, which is now ~65% of the energy used by computing networks such as traditional data centers (Figure 10).

**FIGURE 10: TERAWATT-HOUR (TWH) ANNUAL ENERGY USE: BITCOIN & GLOBAL DATA CENTERS**



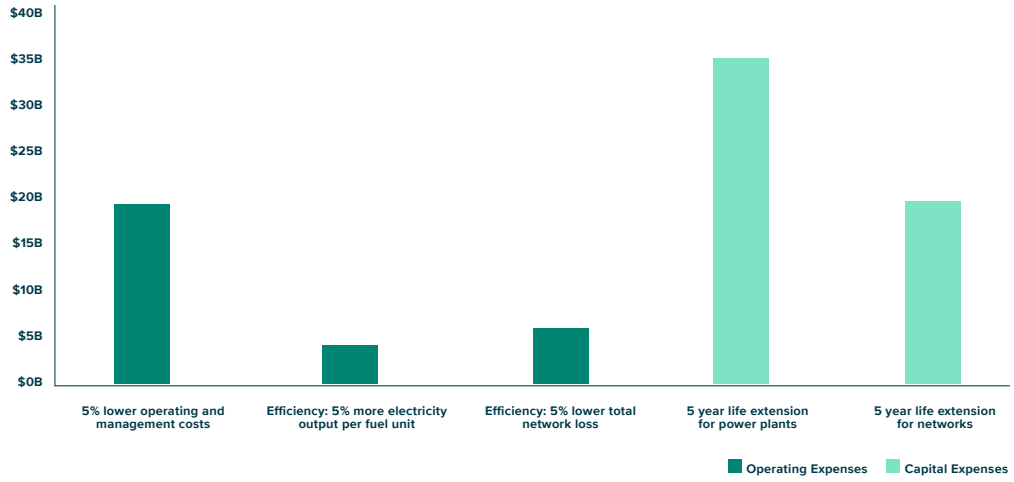

Source: Cambridge (Bitcoin: 1/16/2022E), IEA (Data Centers: 2020E; 2017 report)

Miners are gaining the trust of local communities and national governments by forming mutually beneficial relationships with utilities and renewable energy producers. They also contribute to the digitization of distributed energy resources, and facilitate the development of residential solar and storage, making it easier to store and sell surplus electricity to the grid or locally.

By converting excess energy into digital currency, and offering utilities the flexibility of shutting off or switching energy sources when power demand spikes, distributed networks operators are facilitating the peer-to-peer electricity trade. As a result, miners are contributing to better grid management and helping utilities make the clean energy investments needed to phase out non-renewable sources.

The market opportunity for increasing energy efficiency extends well beyond the ~$35 billion digital asset mining market (Figure 3). Better microgrid management and digitization of the electricity network could offer an estimated ~$80 billion per year in savings (Figure 11). The International Energy Agency (IEA) has estimated that demand-response programs in buildings, industry, and transportation could provide the flexibility to avoid $250 billion of investment in new electricity infrastructure.

**FIGURE 11: WORLDWIDE COST SAVINGS FROM ENHANCED DIGITALISATION IN POWER PLANTS AND ELECTRICITY NETWORKS OVER 2016-2040**




Source: IEA November 2017 Report

## Payment Platforms

Payment platforms are service providers that authorize and settle digital asset-to-digital asset or digital asset-to-fiat transactions between entities, including investors, brokers, exchanges, and merchants. These include companies such as Paypal (PYPL)*, which launched digital asset support in 2021, vastly expanding the ability for global merchants to accept updated payment rails.

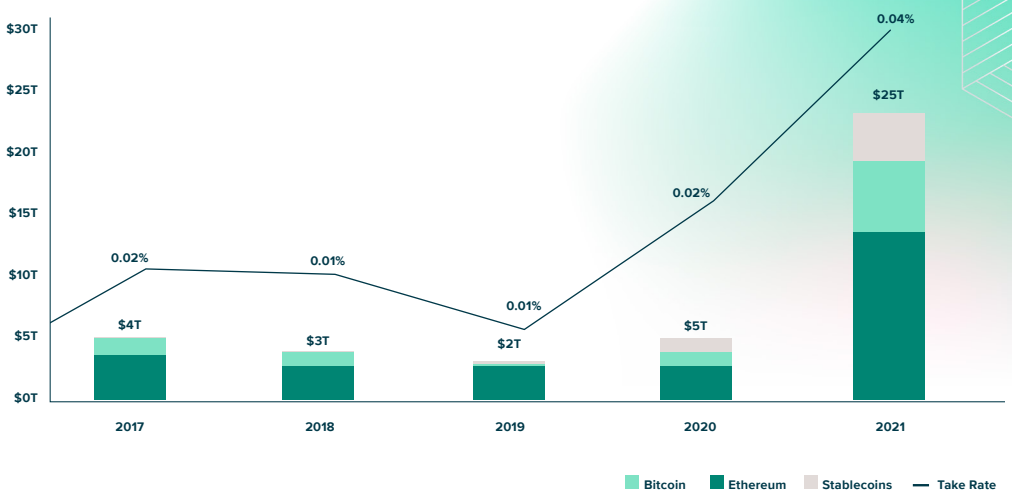
These platforms are enhancing the utility of blockchain-based digital asset payments, which have seen significant growth over recent years and already have scale.





*PayPal currently only allows consumers to make crypto payments to merchants on their platform and requires that funds be converted to fiat before they can be paid to the merchant.

**FIGURE 12: BITCOIN, ETHEREUM, & STABLECOIN PAYMENT VOLUME & TAKE RATES**



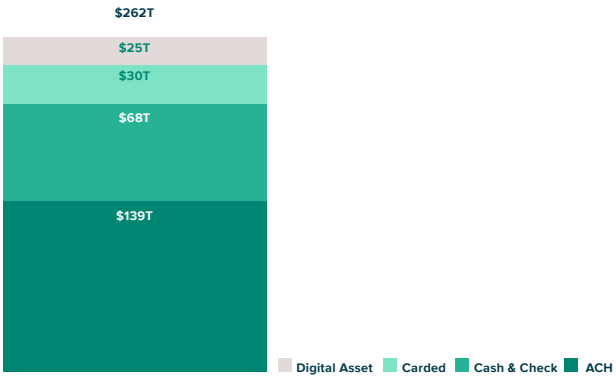

Source: Date: 1/1/2017 to 12/31/2021, Grayscale Estimates. Take rate represents USD fees paid to the blockchain network as a percentage of the USD total transaction value sent during the period. Blended-fee take rate calculated as the USD total Bitcoin and Ethereum network fees divided by the USD total Bitcoin, Ethereum, and Stablecoin on-chain adj-transaction value per Coinmetrics (assumes stablecoins are issued on Ethereum; does not adjust for fees paid by other applications, which could cause take rates to be lower; actual take rate costs may differ).

During 2021, on-chain payment volumes reached ~$25 trillion across stablecoins, Bitcoin, and Ethereum – with a blended-fee take rate of 0.04% (Figure 12).

The global payment market is $260 trillion each year, which equates to roughly 2.5x global GDP. In the context of the global payment market, digital asset-enabled blockchain-based payments have achieved scale, standing at nearly the volume of card payments, which are ~$30 trillion annually (Figure 13).

Digital asset infrastructure has been able to expand the size of the payments market by lowering transaction costs, similar to how the Internet vastly expanded the number of communications that could be sent through email. By moving from letter mail to email, the Internet ultimately lowered transmission costs. Payment platforms could benefit from a similar shift, and replace large parts of the existing infrastructure.

**FIGURE 13: GLOBAL PAYMENT ANNUAL TRANSACTION VOLUME**




Source: Grayscale Estimates, Coinmetrics, Digital Asset payment volume based on FY 2021, ACH, Cash & Check, & Carded payment volume based on Credit Suisse report as of 1/24/2020

Digital asset payments have the potential to lower merchant costs, while shifting value toward payment platforms that leverage the technology by removing intermediaries, including card networks and banks, from a greater share of transactions. Generally, there are three key parties that collect fees for enabling credit card payments between customers and merchants:

- **Issuing Bank:** The issuing bank (i.e., card issuer) collects the largest component, known as interchange fees (net fees range: 1.50%-300%), for providing funds to the merchant acquiring bank on the customer's behalf, acting as a buffer for fraud chargeback risk.
- **Card Network:** The card networks collect fees (net fees range: 0.15%-20%) for acting as the hub for card payments, routing transaction authorization and settlement messages between issuing and acquiring bank members.
- **Merchant Acquirer:** The merchant acquirer (i.e., front - and backend payment processor) signs up the merchants and collects the remaining spread from their set rate (net fees range: 0.10%-1.20%) for signing up merchants and allowing them to accept credit card payments from customers. The merchant acquirer could be a merchant bank directly (typical for enterprises; offers lower rates), an independent sales organization signing up merchants on behalf of the bank (typical for mid-market sellers), or a payment facilitator that acts as a sponsor for merchants by giving them a sub-account on their bank account (typical for SMBs and micro-merchants).

This process is also sometimes referenced as the 4-party model: 1) customers, 2) merchant, 3) merchant acquirer, and 4) issuing bank, with the card network acting as the go-between third party.

Pricing models and fee structures can vary greatly based on a number of factors, and additional subsets of intermediaries can be involved. However, on an e-commerce credit card transaction with a mid-sized merchant, the merchant could typically pay an estimated fee of ~2.50% of the total purchase amount (i.e., the merchant discount rate or MDR). The ~2.50% fee gets distributed between several payment intermediaries. Estimated net fees for each party could be:

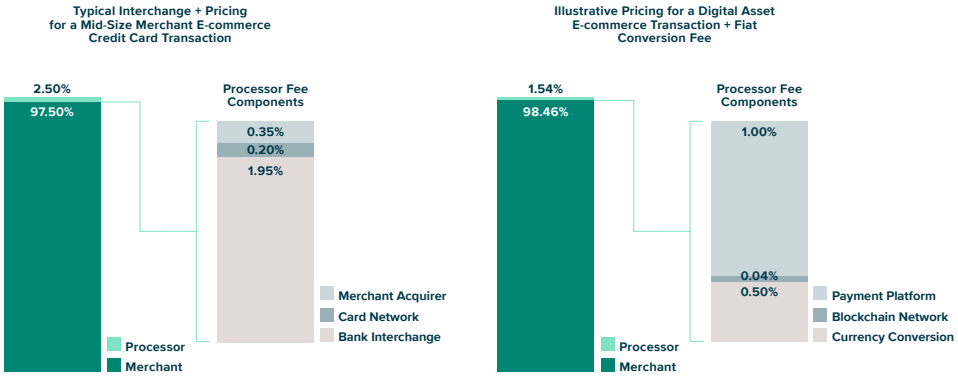
- ~0.35% for the merchant acquirer,
- ~0.20% for the card network, and
- ~1.95% for the issuing bank (Figure 14).

Digital asset infrastructure has the potential to shift the competitive industry power structure in favor of payment platforms that maintain direct customer and merchant relationships (these can also be merchant acquirers, in some cases) because the blockchain network removes the requirement for relying on the legacy infrastructure that card and banking networks control.

The new digital infrastructure allows individuals, merchants, and/or payment platforms to take direct custody of crypto assets or stablecoins in their digital wallets, and freely transfer ownership using the blockchain network for clearing and settlement. This structure enables digital asset payments to bypass card networks and banks – similar to the way Venmo allows customers to send money by updating the platform's internal ledger – but on a global distributed ledger that anyone can transact through.

Illustrating the potential of this shift, replacing the 2.15% fee (interchange: 1.95% and card network: 0.20%) with a 0.04% blockchain network fee (Figure 12), would create 2.11% of excess value from the described mid-sized e-commerce merchant. Digital asset payment platforms are capturing this excess value by either charging some combination of a merchant commerce fee (1.00% flat for some models) or a currency exchange fee (0.01% for some stablecoins; 0.04% - -0.50% on some digital currencies; could range from 1.50%-2.30% for payment platforms that offer liquidity via other exchanges and collect a markup/spread). The figure below illustrates a hypothetical transaction that charges a 1.00% commerce fee, plus a hypothetical currency conversion fee of 0.50%, which would allow the payment platform to collect ~4.3x the value (1.50% vs. 0.35%), while lowering the merchant's cost by ~40% (1.54% vs. 2.50%) (Figure 14).

**FIGURE 14: HYPOTHETICAL E-COMMERCE PAYMENT: CREDIT CARD VS. BLOCKCHAIN**




Source: For illustrative purposes only. Credit Suisse (Credit Card estimates for Merchant Acquirer, Card Network, and Bank Interchange as of 1/24/2020 report), Grayscale Estimates (Digital Asset Payment Platform fee discussed above: Blockchain Network representative of Figure 12: FY 2021 Take Rate, Coinbase Commerce fees, Coinbase exchange fees, PayPal transaction fees, PayPal embedded spread), actual pricing models, payment costs, and distribution of payment fees will vary.

Payment platforms have the potential to capitalize on a greater shift to new digital infrastructure that could alter both pricing models and industry value capture from consumers that adopt the new technologies, but still rely on companies for added ease of use and services, including fraud prevention, asset custody, payroll services, supplier invoicing, financing, tax management, and other value-added services that go beyond the pure payment transaction. Payment platforms that are adopting upgraded digital infrastructure have the opportunity to leverage their large user bases and capitalize on tech-enabled competitive shifts (Figure 15).

**FIGURE 15: DIGITAL USERS: FINTECH NEOBANKS, BANKS, & PAYMENT PLATFORMS**


Source: Neobanks (eMarketer Q2-21), Banks (SEC Filings Q3-21; Active Digital Users), Block (Square Blog Q3-21), Coinbase (SEC Filings Q3-21; Verified Users), PayPal (Venmo: PYMNTS Q2-21), PayPal (ex Venmo: Company Filings: Q3-21)

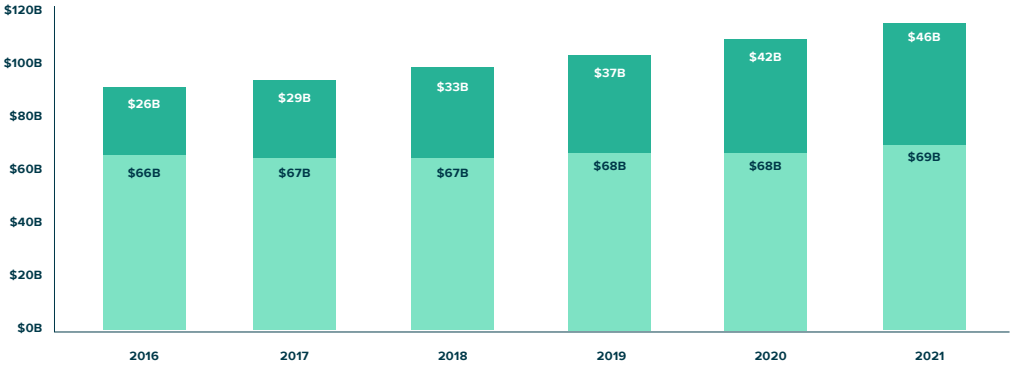
## Blockchain Technology Providers

Blockchain technology providers are companies that enable blockchain-based applications, and offer systems, solutions, or software that support the digital asset ecosystem. These include companies such as the payment provider Block (SQ), which rebranded from Square in late 2021, and is actively developing software for the Bitcoin network through its subsidiary, Spiral.

By contributing developers and other resources towards Bitcoin support, companies such as Block, which purchased ~$220 million in Bitcoin, are improving the network and aiming to increase the value of their investment. As adoption of the updated digital infrastructure expands, these new technology investments are contributing to a competitive advantage for the technology providers vs. banks, which continue to be bogged down by their legacy systems.

For example, banks in North America alone spend $115 billion a year on IT costs, with the majority of that going toward maintaining outdated systems (Figure 16). As a result, technology providers that are integrating digital asset infrastructure into their business models have become better equipped to capture value as the digital economy transitions toward the future of finance.

**FIGURE 16: NORTH AMERICAN BANK ANNUAL IT SPENDING**




Source: Credit Suisse (2016-2018 Actual; 2019-2021 Estimated)

# A Better Digital Future

There are numerous investment opportunities across the ever-evolving digital economy. The continued development of blockchain technology and digital assets, proliferation of digital payments and cashless societies, creation of virtual spaces and events, evolution of data, and more, all create new avenues for investors to explore. Taken together, these themes represent a digital evolution that is not only unlocking new value, but also redistributing value across industries. Grayscale Future of Finance ETF (symbol: GFOF) is designed to capture the transformative companies that are, and could be, building the future of finance and our digital economy. At Grayscale, we believe the digital economy is still early in its development, which offers an exciting investment opportunity for investors who want a stake in the ideas that have the potential to define our tomorrow.

*Investors should consider the investment objectives, risks, charges and expenses carefully before investing. For a prospectus or summary prospectus with this and other information about the Fund, please call (833) 903-2211 or visit our website at **www.grayscale.com/gfof**. Read the prospectus or summary prospectus carefully before investing.*

Opinions expressed are subject to change at any time, are not Fund holdings are subject to change and are not recommendations to buy or sell any security. Please **click here grayscale.com/GFOF** for the fund's top ten holdings guaranteed, and should not be considered investment advice.

Investments involve risk. Principal loss is possible. ETFs may trade at a premium or discount to their net asset value. The fund is new and has limited operating history to judge.

**Fund Risks:** The Fund is non-diversified therefore Fund's shares may rise and fall more than the value of shares of a fund that invests in securities of companies in a broader range of industries. The fund is not actively managed. Investments in foreign securities may involve risks such as social and political instability, market illiquidity, exchange-rate fluctuations, a high level of volatility and limited regulation. These risks are magnified in emerging markets. Investments made in small to mid-capitalization companies are subject to greater risks than large company stocks due to limited resources and inventory as well as being more sensitive to adverse conditions.

The Fund will not invest in digital assets directly or through the use of derivatives. The Fund also will not invest in initial coin offerings. The Fund may, however, have indirect exposure to digital assets by virtue of its investments in companies that use one or more digital assets as part of their business activities or that hold digital assets as proprietary investments. Because the Fund will not invest directly in any digital assets, it will not track price movements of any digital assets.

Future Finance Companies rely heavily on the success of the digital currency industry, the development and acceptance of which is subject to a variety of factors that are difficult to evaluate. Digital assets generally operate without a central authority (such as a bank) and are not backed by any government. These companies may be subject to theft, loss or destruction of cryptographic keys (required to access a user's account when transacting on blockchain). Blockchain technology is new and many of its uses may be untested. The development and acceptance of competing platforms or technologies may cause consumers or investors to use an alternative to blockchains. Digital assets that are represented on a blockchain and trade on a digital asset exchange may not necessarily benefit from viable trading markets. Digital commodities and their associated platforms are largely unregulated, and the regulatory environment is rapidly evolving. Companies that are developing financial technologies intended to disrupt or displace established financial institutions generally face competition from much larger and more established firms.

**Defined Terms**
Fund holdings are subject to change and are not recommendations to buy or sell any security.
Please **click here** for the fund's top ten holdings

**Neobanks:** a type of direct bank that operates exclusively online without traditional physical branch networks.

**Blockchain:** a system in which a record of transactions made in bitcoin or another crypto network are maintained across several computers that are linked in a peer-to-peer network. Bitcoin: a type of digital currency that uses state-of-the-art cryptography, can be issued in any fractional denomination, and has a decentralized distribution system.

**Ethereum:** a blockchain computer program similar to Bitcoin. It can be used to create automated contracts or circulate a digital currency called Ether.

**Stablecoin:** any cryptocurrency designed to have a relatively stable price, typically through being pegged to a commodity or currency or having its supply regulated by an algorithm.

**Fiat money:** paper currency made legal tender by a fiat of the government, but not based on or convertible into coin.

GFOF is distributed by Foreside Fund Services, LLC and Grayscale Advisors, LLC is the adviser.