



THE ULTIMATE GUIDE TO



REGULATING CRYPTO

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1

Getting Up to Speed with Cryptocurrency

We prepared this guide on regulating cryptocurrency as an introduction to this rapidly evolving space. To begin, let's talk generally about the ins and outs of cryptocurrency and what it means for RIA firms and their clients.

Bitcoin. Ether. Dogecoin. Blockchain. Digital wallet. You may have heard these terms before, but for many, the words are just lingo for a high-tech, mysterious world of cryptocurrency we know little about. Elon Musk tweets about it. Tech companies like Microsoft accept it as

payment. As cryptocurrency inches its way into our awareness, it inches its way into commerce too.

With crypto becoming more accepted as a form of payment by mainstream businesses, questions are bound to arise about how it will be used for commerce in the future. For those bewildered by the cryptocurrency market, exactly what is cryptocurrency and how does it work?

What is Cryptocurrency?

Simply put, cryptocurrency is a digital system of money that is decentralized, meaning there's no central bank through which it is exchanged. The decentralized nature of cryptocurrency makes it harder to tamper with or counterfeit.

The main difference between cryptocurrency and the "regular" or fiat currency we deal with daily is the technology behind it: a distributed ledger. The Federal Reserve issues the U.S. dollar, which we typically access through a bank. Transactions through that bank are recorded on the bank's ledger: if you take \$100 out of the bank's ATM today, that amount is subtracted from your account on your bank's ledger.

With cryptocurrency, all transactions are duplicated and recorded across the entire network of computers in the system. This distributed ledger system means that once transaction data is recorded, it's very difficult to change it, because it must be changed across the entire network. One specific type of distributed ledger employed by some cryptocurrencies uses an ever-increasing series of records called "blocks" that are cryptographically linked together. This type of distributed ledger frequently used with cryptocurrency is called blockchain.



ELEMENTS OF CRYPTOCURRENCY

BLOCKCHAIN

Blockchain is the distributed ledger system that makes cryptocurrency decentralized. It's a way to record information that's hard to tamper with or hack. Think of it as a chain of blocks that has certain information on it, like a digital timestamp of the transaction. It's stored on a network of multiple computers that are all in different locations.

MINING

One way to get cryptocurrency is to buy it. Another way is to mine it. Since there's no central bank that prints new cryptocurrency, miners "dig" up new bitcoin and release it into circulation through a process called mining. Unlike mining for gold, cryptocurrency mining is a high-tech process of solving mathematical work that includes these steps:

- Verifying and validating new transactions and ordering them into a new block
- Adding the new block to the ledger's blockchain
- Broadcasting the new block to the crypto network

Miners who do this are rewarded with cryptocurrency. Those who mine cryptocurrency usually sell what they get, releasing the currency into circulation. And unlike gold, the supply of cryptocurrency isn't influenced by the amount of mining.

NON-FUNGIBLE TOKENS

A non-fungible token (NFT) is a token that indicates ownership of a unique item. It can track the current possession and selling price of that item. "Non-fungible" means that item cannot be replaced by anything else because it's unique. NFTs provide something that cannot be copied: proof of ownership or an original work. In the world of art collecting and cryptocurrency, NFTs can be worth millions of dollars.

While not cryptocurrency, NFTs use blockchain technology and can be purchased using cryptocurrencies like Bitcoin. NFTs generally use something called smart contracts, technology that automates the execution of an agreement (like a type of Ethereum account) to create the tokens.

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← Here's a basic breakdown of some of the elements that make cryptocurrency work.

Getting Involved in the Crypto Market

Cryptocurrency isn't available at your neighborhood bank.

If you want to get involved in cryptocurrency, though, there are a few options. First, you need to decide which cryptocurrency you want. Bitcoin is just one type, but it dominates more than half the market. Ether is another type that uses the Ethereum blockchain, which is most closely associated with NFTs. Other types include Litecoin, Cardano, Dogecoin, and more. Some cryptocurrencies, like Bitcoin, are available to purchase with U.S. dollars, but others require buyers to pay with Bitcoin or another type of cryptocurrency.

Once you've decided which cryptocurrency you want, you'll need to follow a few steps, outlined here. →

Buyer Beware

Hot and cold wallets are secure ways to store your crypto, but if you lose access to either one, you can lose your investment. Whether it's losing the key code to a hot wallet, or the hard drive or USB breaks or otherwise fails on the cold wallet, you can be out the full amount in that wallet, so choose your storage carefully.

The cryptocurrency landscape is still in its early stages, and there are a number of risks to investing in cryptocurrencies. Because the market is unregulated and has been plagued by volatility, there's the potential for large losses. In recent hacking and customer service scandals with platforms like Coinbase, individual investors have lost hundreds to hundreds of thousands of dollars. When that happens, there's no recourse because blockchain transactions are irreversible once completed.

INVESTING IN CRYPTOCURRENCY

1 OPEN AN ACCOUNT

Once your broker or crypto exchange account is open, you can transfer real money to buy cryptocurrency like Bitcoin or Ether. One popular exchange is Coinbase, which allows users to both create a wallet and buy and sell cryptocurrency. Several online brokers like Robinhood, eToro, SoFi Active Investing, and TradeStation have started to offer cryptocurrencies.

2 PLACE AN ORDER

Once your wallet is set up, you can make a purchase by entering a cryptocurrency's ticker symbol and an amount of coins to buy. Many exchanges and brokers allow buyers to purchase fractional shares of cryptocurrency. Bitcoin and Ethereum shares can cost thousands of dollars per token.

3 CHOOSE A STORAGE METHOD

Cryptocurrency is not backed by protection like the FDIC. Despite blockchain's security, your investment is still at risk of hacking or theft. If your cryptocurrency is purchased through a broker, your storage choices may be limited. But if you purchase through an exchange, you have a few options:

- A "hot wallet" is a convenient way to store your currency online. However, the online nature of it makes it more susceptible to hacking.
- A "cold wallet" is the most secure option for storage, since it involves a device like a hard drive or USB drive that's not connected to the internet.
- You can also leave the currency in the wallet that is associated with the exchange where you purchased it.

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Cryptocurrency is also a boon for scammers. From October 2020 through April 2021, the Federal Trade Commission (FTC) fielded nearly 7,000 reports from consumers about scams. The median loss reported for these scams was \$1,900. The FTC cautions people interested in cryptocurrencies to look for [these signs of a scam](#):

- someone insisting on cryptocurrency for payment,
- a guarantee you'll make money, or
- a promise of guaranteed returns and big payouts.

Scammers also make big claims but don't provide details about how the investment works or where your money is going.

The Currency of the Future?

Cryptocurrency isn't just for buying and selling. With cryptocurrency becoming more readily exchanged and accepted, several major companies are coming around to this new type of currency. Microsoft, Overstock, Whole Foods, Starbucks, and Home Depot are just a few of the companies who now accept Bitcoin as payment. As more and more businesses adopt crypto as a payment form, questions arise about how it will be used for commerce in the future and how it will interact with regulatory compliance.

In the next chapter, we discuss the major issues to consider when registering a digital asset fund.

TOP 10

ISSUES TO CONSIDER

WHEN REGISTERING A DIGITAL ASSET FUND



2 Top 10 Issues to Consider When Registering a Digital Asset Fund

Now let's look at the major issues to consider when registering a digital asset fund.

Since the dog days of last summer, crypto connoisseurs have been tracking the launch of registered investment companies that trade in futures on cryptocurrencies. Since then, the market has seen the launch of the ProShares Bitcoin Strategy ETF ([BITO](#)) on October 18, 2021, and the [IDX Risk-Managed Bitcoin Strategy Fund \(BTIDX\)](#) on November 12, 2021, among other products. The novelty of these products and their

potential risks mean they must undergo regulatory scrutiny by the SEC's Division of Investment Management, which reviews all new mutual fund and ETF filings. To meet these regulatory requirements, the fund's sponsor, its legal counsel, and other service providers must respond to numerous comments and requests for information from the SEC and its staff. This chapter summarizes the key issues registrants are likely to encounter as they navigate the regulatory gauntlet.

1. Fund Name and Strategy

Investments in certain asset classes do not always fit nicely with the framework established by Rule 35d-1 or Section 35 of the Investment Company Act of 1940. A reference to a digital asset such as Bitcoin, Ethereum, Solana, or other cryptocurrencies (or related futures contracts) requires that the fund invest a certain percentage of its assets in that asset. In fact, using the digital asset in your name may require that your fund have a concentration policy to invest at least 25 percent of its total assets in that asset class (see below for more discussion on concentration policies).

There's no clear rule on what percentage of your fund's total assets must be invested in the reference asset. Section 35 of the Investment Company Act simply says that your name cannot be misleading. The number is usually above 50 percent and must be viewed over a normal market cycle. In other words, your fund's average exposure to the referenced asset should be above 50 percent during a full market cycle, including defensive periods.

As part of this conversation, you'll need to discuss the factors that your fund's board considered when implementing this strategy in an open-end management company (i.e., mutual fund or ETF). Be sure that your board materials align closely with your registration statement.

2. Investments in Other Pooled Investment Vehicles

The SEC is still collecting data and information on the number and types of pooled investment vehicles, including U.S. and foreign private funds,

that invest in digital assets. If your fund intends to invest principally in other pooled investment vehicles, then be prepared to provide detailed information on the specific vehicles in which you plan to invest. To date, the staff has objected to funds that invest in Canadian exchange-traded funds or Grayscale Bitcoin Trust ([GBTC](#)).

3. Liquidity and Capacity Constraints

I know—this is technically two issues. But they are so closely related that I couldn't talk about one without the other. Liquidity issues take two forms when it comes to digital assets: market liquidity and fund liquidity. Given the concerns the SEC has over market liquidity, the staff frequently asks if a fund has any inherent capacity constraints. Thus, your reply to one issue will almost certainly reference the other issue.

To better understand the underlying markets, the SEC is asking for information on market liquidity. For example, if you're trading in digital asset futures, you'll need to provide information on the spot position limits and position accountability level for the exchanges on which the fund will trade. Be prepared to provide robust discussion on your target markets along with information on other related markets (e.g., foreign exchanges). Information on global trading levels is also helpful. You will also need to disclose the trading times of your underlying market. If the market trades 24/7/365, you'll need to provide risk disclosure that discusses the dislocation that can occur between U.S. trading times and the underlying market's trading times.

At the same time, you'll need to discuss how your fund will comply with Rule 22e-4, the liquidity risk management rule. Note that given the always-available nature of many digital asset markets, your fund liquidity program will need daily assessments of the fund's positions. The SEC will want to know which service providers are involved in the liquidity risk management process.

Also, capacity constraints may arise during your engagement with the staff. Given the limited liquidity of some digital asset markets and the increase in funds participating in those markets, the staff may ask if the

fund or its investment adviser has any plans for managing the fund's capacity if certain market conditions occur. If this issue arises, you'll need to provide supporting market and technical data to support your strategy. Relatedly, you may need to disclose the risk of capacity limits to investors.

4. Concentration

The SEC is taking the position that certain digital assets fall within the concentration policy under Section 8(E) of the Investment Company Act. Arguing that the asset is currency, security, or something other than an industry or group of related industries will not get you far—at least, not right now. So be prepared to adopt a concentration policy that complies with the Investment Company Act.

5. Valuation

Even if the digital assets in which the fund will invest have market prices, you'll need to discuss your fair value process. Many digital assets don't trade on a centralized exchange, so there's no single market price. Be prepared to discuss when your fund will use fair valuations and what the process is for determining those prices. Include in this discussion how the fund will fair value the reference asset in its primary market closes. For example, will you rely on another market for comparison or review spot prices and average premiums or discounts during a period and apply those adjustments to the current spot price?

6. Leverage

Investments in certain digital assets or futures on digital assets may include a degree of leverage. If so, be sure to disclose the risks related to those levered positions and the related costs (e.g., margin requirements).

7. Roll Strategy (Futures Funds Only)

Since futures markets for digital assets are new (at least in the United States), the SEC has concerns about the roll strategy used by funds. Part of that concern relates to the possibility that too many funds can

have the same or similar roll strategies, which creates risk market alignment. Be prepared to explain your fund's roll strategy and why the market's liquidity (discussed earlier) can support it. Also, be ready to provide the staff with estimates on your roll costs and how significant those costs are related to the fund's total operating expenses. These responses will require supporting market data.

8. Extreme Market Conditions

If the digital assets in which you plan to invest have recently experienced stressed market conditions or extreme volatility, then you'll need to address how your proposed fund will perform under similar conditions. If you can, refer to composites, models, or other accounts using a similar strategy and discuss how they performed under the extreme market conditions.

9. Derivatives Risk Management

If your fund will use derivatives such as futures on digital assets, be ready to discuss your derivatives risk management program under Rule 18f-4. As part of your discussion, you'll need to consider your methodology for tracking exposure (e.g., relative VaR) and provide your designated index.

10. Environmental Impact

Certain digital assets, particularly cryptocurrencies, are electricity or resource intensive to create. The SEC has started asking funds to disclose the environmental impact of Bitcoin mining and other similar activities.

In the next chapter, we examine the complex regulatory landscape of cryptocurrencies and other digital assets.



TOP ISSUES TO CONSIDER WHEN REGISTERING A DIGITAL ASSET FUND

Here are the major issues registrants are likely to encounter as they navigate the regulatory gauntlet.

1. Fund Name & Strategy
2. Investments in Other Pooled Investment Vehicles
3. Liquidity & Capacity Constraints
4. Concentration
5. Valuation
6. Leverage
7. Roll Strategy (Futures Funds Only)
8. Extreme Market Conditions
9. Derivatives Risk Management
10. Environmental Impact



**WE CAN HELP GUIDE YOU
THROUGH THESE ISSUES.**

Get in touch.





Photo by Dave Morgan and Karolina Grabowska on Pexels

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The Queen City of Crypto and the Regulatory Landscape

Now let's take a look at the complex regulatory landscape of cryptocurrencies and other digital assets.

Cincinnati, the Queen City of the (Mid)west, is fast becoming the Midwest's queen of crypto. Unfortunately, the city is coming of age during a time of regulatory uncertainty. As more local companies launch products related to cryptocurrencies, local entrepreneurs will need to engage with Washington regulators to ensure a happy ending.

In June 2021, Cincy Inno reported that [crypto ATMs were popping up around Cincinnati](#); in fact, the number more than doubled to 113 in less than a year! The trend is driven by the number of people purchasing, mining, and investing in crypto and the availability of debit cards linked to digital wallets. At the time, Cassandra Gulia, Bitcoin Depot's strategic marketing manager, noted that "[i]n the last year, a lot of people have been looking away from banking and the stock market and towards cryptocurrencies as a means of diversifying portfolios." And that trend has only continued.

In July 2021, a group of [Cincy investors launched their second crypto fund](#)—Cincinnati Exchange Fund L.P. (The first fund, [Cincinnati Crypto Fund](#), was launched in 2018; the fund reportedly raised \$5 million.) According to the Cincinnati Business Courier, "[t]he fund takes investors' cryptocurrency and stores it while exchanging it for a share of the partnership, much like an investment in a mutual fund." The fund provides tax and diversification benefits to crypto holders. As noted in the article, crypto is fast becoming an asset class held by institutional and retail investors. The benefits are a lack of correlation with U.S. equities and other markets. The risks are high volatility and lack of regulation.

But investors are not the only business adopting cryptocurrency. Cincy Inno has reported on [Hyde Park retailers accepting crypto as payments](#) and [real estate startups trying to use the blockchain to resolve affordable housing issues](#). More recently, Joot CEO and FinTech Law managing director Bo Howell helped IDX Advisors launch the [first risk-managed Bitcoin futures fund](#), one of only a few Bitcoin-related mutual funds in the country. After getting the fund registered, he also published a blog post on key regulatory issues related to registered crypto funds (see Chapter 2).

The latest news announced [the possible IPO of Grid Infrastructure](#), a Cincinnati-based Bitcoin mining upstart. Grid and Adit EdTech Acquisition Corp. announced the possible launch of a "SPAC, or special purpose acquisition company" that could acquire Grid and take it

public. The deal could value the company at more than \$3 billion. Grid claims to engage in carbon-neutral Bitcoin mining, which is a resource-intensive process.

The Path to Crypto

In the past decade, we've seen crypto go from a decentralized form of payment known only to the nerdiest of computer geeks to one of the hottest investment products in mainstream America. It's the modern tulip craze. But as these forms of decentralized financial instruments improved their technology and produced spinoffs, new coin offerings, and more, their staying power increased.

As a result, regulators are starting to get involved in cryptocurrencies and other digital assets. On December 8, 2021, CEOs of various cryptocurrency-related companies [appeared before Congress](#) to educate representatives on this budding industry. Their goal: "tout what supporters believe to be the potential upsides of crypto and blockchain technology while playing down the risks highlighted by many policy makers and consumer-protection advocates." Supporters argue that existing regulations don't fit digital assets, and trying to shove these square pegs into a round hole will cause innovators to move overseas. Opponents are concerned about fraud and threats to financial stability.

The Path Forward

The path forward will require cooperation between innovators and regulators. At the annual SEC Speaks conference on October 12–13, 2021, Commissioner Caroline A. Crenshaw focused her remarks on the SEC's regulation of digital assets, including cryptocurrencies. She directed her comments to developers, saying that the path forward requires a meaningful exchange of ideas between innovators and regulators. Ms. Crenshaw suggested that a well-regulated digital market would increase investor trust and confidence and lead to heightened growth. She concluded her remarks by emphasizing the SEC's authority to regulate these markets but noting that traditional rules and laws don't provide a sufficient framework. Rather, she noted the need to

reconcile the existing regulatory regime with these rapidly evolving products.

Today, the debate around cryptocurrencies is not whether they are here to stay (they are), but how the government should regulate them. Hence, we've seen the evolution of the crypto asset class go from direct purchase only (through a coin exchange), to private funds available only to the wealthiest investors (who can afford to lose their shirts on a volatile, risk asset), to mutual funds and ETFs that are available to mom-and-pop investors. As cryptocurrencies and crypto-related investments continue to penetrate the market, regulators are struggling with how to handle such novel investment assets.

The Regulatory Landscape

Currently, the SEC and the Commodity Futures Trading Commission (CFTC) are racing to be the preeminent regulator of cryptocurrencies and crypto-related assets. The recent \$3 million fraud related to a digital currency based on Netflix's Squid Game shows the need for some government regulation in an area that often lacks transparency and, therefore, is ripe for misconduct. Here's a basic primer on how each of these government regulators is staking their claim to crypto.

The CFTC claims that crypto is a currency and, therefore, a commodity regulated by the Commodity Exchange Act of 1934 (CEA), a law that was created long before crypto. Setting aside whether a law that was invented in the time of slide rules can effectively manage a digital asset, the CFTC is trying to regulate derivatives of cryptocurrencies, but not the currencies directly. The reason is a lack of legal authority over currencies. Futures, options, and derivatives fall under the CFTC's authority, but not currencies, which are regulated by the Federal Reserve and Treasury Department. The CFTC can regulate futures and options markets but not "spot" markets, where commodities (like soybeans and copper) are traded directly. Most digital coin exchanges are considered spot markets.

The Need for Crypto Clarity—and Investor Protection

The SEC is staking its claim on the definition of a security, which

includes investment contracts as established in the 1946 Supreme Court case of [SEC v. Howey](#) (again, harking back to the days of slide rules, although some computers existed around this time). Under the Howey Test, a security includes an “investment contract” under the Securities Exchange Act of 1934. The test turns any contract, scheme, or transaction into a security if there’s an investment of money in a common enterprise with a reasonable expectation of profit from the work of others. Clearly, that definition is extremely broad and can be applied to a myriad of situations.

Oddly, the SEC has already said that Bitcoin and Ethereum, the two largest cryptocurrencies by market size, are not securities. But as noted in a recent [Jurist article](#), “the SEC has cleverly identified other aspects of the crypto ecosystem which are more similar to securities and has declared those areas to be fair game for SEC regulation.” Specifically, the SEC is trying to regulate initial coin offerings (ICOs), which would apply to any new cryptocurrencies hitting the market, not ones already in circulation. The SEC is also going after Decentralized Finance (DeFi) products related to lending and borrowing crypto on decentralized platforms. Since these instruments are more akin to debt, they are more clearly in the SEC’s purview. The SEC is also going after crypto-related companies that have issued stock or other securities to investors. Those securities offerings, whether registered or unregistered, are also clearly in the SEC’s authority.

On August 3, 2021, [SEC Chair Gary Gensler provided remarks](#) at the Aspen Security Forum on the current state of U.S. crypto asset regulation. While acknowledging the contributions crypto assets and blockchain technology have made to financial and monetary innovation, Mr. Gensler noted the immediate need for investor protection considering the hype, frauds, scams, and abuses in the crypto asset space that have harmed investors. Mr. Gensler remarked on the protections that existing U.S. securities laws provide, particularly with respect to ICOs, many of which have been subject to SEC enforcement action as offerings of unregistered securities. Nevertheless, he warned that significant investor protection gaps exist with respect to foreign and decentralized crypto trading platforms that fail to prohibit U.S. investors

from participating. Mr. Gensler noted that products providing exposure to crypto assets have been around for several years and there are a few mutual funds that invest in Bitcoin futures that trade on the Chicago Mercantile Exchange (CME). He noted that these products include the significant investor protections provided by the Investment Company Act of 1940 but stressed that further congressional action is needed to close regulatory gaps regarding crypto assets.

The SEC Flexes Its Regulatory Muscle

Within days of announcing a need to protect investors, the SEC brought numerous enforcement actions against players in the crypto and DeFi space. For example, a few days after Chair Gensler's comments, the SEC announced a [settled enforcement action against a DeFi platform and its executives](#) for unregistered securities sales of more than \$30 million and misleading investors. Blockchain Credit Partners used smart contract and DeFi technology to sell two types of digital tokens: mTokens and DMM governance tokens (DMG). The mTokens paid fixed interest and the DMG tokens purportedly gave holders certain voting and profit-sharing rights. The DMG tokens were meant for resale in a secondary market. The SEC found that the tokens were investment contracts under the Howey Test, and therefore the offerings should have been registered under the Securities Exchange Act of 1934.

A week after Chair Gensler's comments, the SEC announced a [settled enforcement action against Poloniex LLC](#) for operating an unregistered online digital asset exchange in connection with its operation of a trading platform that facilitated buying and selling of digital asset securities. The SEC again determined that the digital assets were investment contracts. The exchange traded Bitcoin, Ether, Monero, Tether, and USD Coin. Poloniex didn't offer any fiat currency functionality or trading, but it did charge trading fees from each transaction and aggregated the fees in a Poloniex-owned address of the digital asset underlying the trade.

More recently, the SEC brought a civil lawsuit against Ryan Ginster for engaging in two unregistered and fraudulent securities offerings. In [SEC v. Ryan Ginster](#), the staff alleged that Mr. Ginster sold about \$3.6 million

in Bitcoin through multiple coin exchanges, promising unrealistic rates of return. Mr. Ginster then converted about \$1 million of the Bitcoin into cash and used it to pay personal expenses. In a [press release](#), Michele Wein Layne, Regional Director of the SEC's Los Angeles Regional Office, stated that "[i]ndividuals who hide behind the anonymity of cryptocurrency transactions to defraud investors should expect that the SEC will trace their illegal activity and hold them accountable for their actions."

On December 2, 2021, the SEC brought another crypto-related enforcement action, this time for a [foreign scheme that allegedly defrauded retail investors of more than \\$7 million in two unregistered digital asset securities offerings](#). This time, the case was brought by the SEC's Cyber Unit, a specialized unit within the SEC's Division of Enforcement. In the [press release](#), Kristina Littman, Cyber Unit Chief, reiterated that the SEC "will continue to detect and pursue those that seek to victimize investors in the digital asset space."

The Battle over Crypto Continues

In early December 2021, SEC Chair Gensler said at an SEC Investor Advisory Committee meeting that many digital tokens are securities and fall under the SEC's authority. As [reported by InvestmentNews](#), Gensler stated that "[t]he American public is buying, selling and lending crypto on trading, lending and decentralized finance platforms, where there are significant gaps in investor protection. This leaves markets open to manipulation." In its year-end report on [SEC enforcement in fiscal year 2021](#), the SEC noted that it had brought first-of-their-kind actions involving securities using DeFi technology.



The crypto market will see increased government regulation in the years to come, and many welcome it.



Despite Chair Gensler's position, the fact remains that digital assets like cryptocurrencies don't fit neatly into the SEC's regulatory framework. A bit of legal gymnastics is needed to vault and land on the conclusion that crypto is a security. Regardless of the accuracy of the SEC's position, the crypto market will see increased government regulation in the years to come, and many welcome it. One group that would welcome crypto clarity is registered investment advisers, whose clients are increasingly interested in crypto as part of their investment portfolio.

In the next chapter, we offer practical advice for navigating the complexities of tokenization and automating KYC.



4 Taking on Tokenization

By Michelle Morgan of Titan by [AdvancedAIS](#)
and Bob Taylor of [GRADA](#)

We now turn to the tricky subject of tokenization.

You can't avoid it. Everywhere you turn, people are talking about cryptocurrency, investing in cryptocurrency, debating the future of cryptocurrency. You can't walk down the street without hearing the words "Bitcoin," "Ethereum," or "mining." And that's not just while walking down Wall Street—that's while walking down the residential streets of Oklahoma too.

Now entire conferences are being held on cryptocurrency and all its

opportunities and challenges. Specialists are popping up everywhere. Despite all the grumbling over the last few years about the Bitcoin bubble, the use of cryptocurrencies and related blockchain technologies is growing at an incredible pace.

Just when a lot of the industry is finally comfortable with the idea of funds investing in various cryptocurrencies, more curveballs are being thrown, the latest being around tokenization.

More and more investment managers are launching tokenized asset funds. While the industry is still settling on terminology, this can mean a few things:

- Private funds are letting investors come in with in-kind subscriptions of cryptocurrency.
- Investment managers are having their private funds issue share classes denominated in cryptocurrency and represented by blockchain tokens.
- Secondary private markets are being formed for these tokenized share classes.

What Are the Issues and What Are Parties Looking For?

Investment managers and investors are leading the charge. Managers want to invest in cryptocurrency or tokenized entities and offer tokenized classes. Many asset managers and family offices that have invested in cryptocurrencies have expressed interest in using them to invest and hold tokenized assets.

There are more than a few questions that naturally arise here:

- How is know your customer (KYC) performed on the token holder?
- How is ownership substantiated?
- How is the secondary private market monitored so no anti-money laundering (AML) laws are broken?
- How is KYC performed on purchasers participating in the secondary

private market?

- Volumes can be high, so how can the industry keep up?
- How is liquidity dealt with?
- How do auditors gain comfort with ownership?
- How do fiduciaries gain comfort with the issues above?

None of these issues are insurmountable but some require thinking outside the box. And these “outside the box” ideas also need to be offered in an efficient way to keep up with volume and mitigate risk. Adding body count will not suffice. A technology-based solution is required.

How Can These Issues Be Solved?

Performing KYC on token holders is possible. In fact, it’s not very different from regular KYC on an investor. The primary concern is over ownership and control of the wallet used to subscribe to the token. This can be proven by several methods such as using microtransactions while in communication with the potential investor. A secondary concern is the source of funds that are coming from the wallet. To gain assurance that the source is legitimate, a risk-based approach is used. A combination of wallet behavior analytics with token history tracking can help ensure the cryptocurrency being used is not sourced from a previous exchange theft or known illicit source.

From a fund administrator perspective, one of the concerns with a tokenized share class is the potential high volume of investor transactions. To accommodate this, a change in behavior is needed by all parties. It’s not efficient for KYC to be a manual task anymore, especially with all the additional regulatory demands and the volume of transactions expected.

To automate the KYC process around cryptocurrencies, service providers have developed SaaS solutions. For example, GRADA offers a centralized KYC platform whereby the onus is on the would-be investor to complete the KYC as required by the administrator. The GRADA

Platform then verifies and validates these documents and verifies the existence and residence of the investor. GRADA electronically validates many documents with the issuer—including passports and certificates of incorporation. GRADA also uses advanced analytics to confirm other aspects of KYC so that administrators can gain comfort in the existence and residence of new investors.

When fund shares or an asset is tokenized, the GRADA Oracle will allow or deny wallet-to-wallet token movements via an external adaptor on the Chainlink blockchain. This ensures that no token can move from one wallet to another unless both buyer and seller are verified and transaction parameters are met. Furthermore, the GRADA Oracle ensures no international sanction programs are violated when a token movement takes place.

For example, if a private fund’s investment parameters include ensuring KYC is complete, excluding U.S. citizens, allowing only “qualified investors,” and having a minimum equivalent to \$250,000, then these parameters are written into the contract. When a transaction occurs, the GRADA Oracle assesses the parameters against the data from both the seller and the buyer and returns a result indicating whether the transaction can proceed. If the transaction proceeds, the smart contract writes it to the blockchain. Once confirmed in the blockchain, GRADA pushes the transaction details into the Titan Platform along with any required investor information or related KYC documentation.

What Opportunities Are Being Created?

Although the mention of tokenization has many service providers grinding their teeth and seeing additional risk, we’re excited about the new opportunities created.



We believe the use of tokenized private funds and smart contracts will open up a whole new world.



We believe the use of tokenized private funds and smart contracts will open up a whole new world. For example, historically, private equity (PE) managers would go about sourcing funds first and then look for deals to invest in. With the use of smart contracts, PE managers can market the deal to investors first, noting that they need a certain total investment before the deal can proceed. This can all be built into a smart contract. In this way, investors are assured that should the total capital raise not be successful, their money will be returned. This will turn the PE deal-raising process upside down. And that's just one example of the various opportunities made possible by smart contracts.

In the next chapter, we consider several opportunities and challenges to adding digital assets to your investment advisory practice.



5 Opportunities and Challenges to Adding Digital Assets to Your Practice

Cowritten with [MeetAmi Innovations](#)

Now let's discuss the opportunities and challenges around digital asset adoption for investment advisory firms to consider.

Why Investors Should Consider Digital Asset Adoption

Digital asset adoption represents one of the fastest adoptions of technology in human history. While retail investors have already taken matters into their own hands, advisers have been slow to adapt due to the perceived gray areas and unanswered questions around regulation and compliance. Are these digital assets securities, commodities, or

derivatives? Who's responsible for overseeing these assets? The SEC? The CFTC? As we write this, the SEC and CFTC are battling a turf war over who regulates the growing crypto marketplace (see Chapter 3). With so many questions, most tenured advisers continue to hesitate to engage. Thankfully, the landscape is much more clearly defined than is generally understood.

What's In It for Investment Advisory Firms?

These digital assets present unique opportunities for advisers. Clients are bringing questions and requests around digital assets to their financial advisers and planners. At the date of publication, cryptocurrencies alone are worth around USD \$1.25T. There's simply too much opportunity for investors not to take notice. As massive investments are made in both research and development of digital assets and their underlying technologies like blockchain, this growth trend is not expected to change. As a result, advisory firms need to understand this evolving asset class and the opportunities it may present for their clients.

Why Firms Should Act Now—and Remain Cautious

These assets are not without their challenges. Inherently, digital assets are complex, relying on cryptography to establish and secure the blockchains on which they're built. This complexity extends into regulation and compliance. At the highest level, asset classification has been difficult to establish as digital assets evolve. Tokenization will undoubtedly contribute to this confusion. More complex problems arise when integration increases within existing and new systems. As blockchain technology evolves, so too does the world of digital assets.

Despite the muddy waters of asset classification, the crypto markets will see increased government regulation in the years to come, and many participants welcome greater crypto clarity. After all, a key ingredient to boosting investor participation in these markets is growing investor trust around digital assets and stabilizing what can be a volatile marketplace. Registered investment advisers (RIAs) are particularly important players

in the regulatory ecosystem as they implement risk management strategies and help their clients develop crypto literacy.

In this rapidly evolving landscape, continuous education and attention to detail become more paramount than ever. But finding relevant resources is often a challenge unto itself. The current lack of high-quality content geared toward investment advisers and wealth managers is one of the main reasons driving content offerings like this.

As Challenges Continue to Surface, So Do Opportunities

Primarily, advisers are seeing more clients interested in digital asset access. Even if there's not a strong demand (yet) for direct market engagement, clients are asking questions. With continuous education and recognized credentials, advisers must establish themselves as trusted partners in navigating the digital asset ecosystem. As informed guides, advisers can engage with more clients. And as trust grows in digital asset markets, more investors will participate.

Tokenization provides some of the most exciting opportunities on the horizon. (See Chapter 4 for more on tokenization.) Traditional assets are being tokenized at an increasing rate. Most notably is the recent adoption of tokenization and smart contracts within the real estate industry. As more assets become tokenized—currently ranging from fine wine and designer handbags to utilities and cloud computing—more investors will choose to engage.

Integration between traditional finance (TradFi) and decentralized finance (DeFi) continues to blossom, and portfolios are becoming more diverse. Early adoption of this trend bodes well for organizations that recognize the changing landscape and take steps to adapt. With retail exchanges more available than ever, institutional investors are requiring more regulated avenues of access. This has led to the creation of traditional investment products, such as private funds, mutual funds, and exchange-traded funds, that invest either directly in digital assets or through derivatives such as futures. Further, some innovative asset managers are launching products that include risk mitigation



Advancements in blockchain systems, movement into the metaverse, and proliferating cryptocurrency adoption all point to an ever-developing regulation and compliance network that cannot be ignored.



in the product's strategy, making these products more attractive to institutional or cautious investors.

It's Already Happening

The shift to digital assets is undeniable. With record-breaking market caps, unprecedented access, and groundbreaking technology, financial services are becoming an increasingly digital space. Advancements in blockchain systems, movement into the metaverse, and proliferating cryptocurrency adoption all point to an ever-developing regulation and compliance network that cannot be ignored. Thankfully, increased experience and knowledge are supporting a network of appropriate oversight that continues to expand, making the world of digital assets not just manageable, but marketable.

Today, these conversations are happening at events ranging from Bitcoin 2022 to the numerous traditional wealth investor conferences and beyond. It's true: everyone is talking about digital assets. But wealth needs a plan.



6 DIGITAL ASSETS: COMPLIANCE CONSIDERATIONS AND TECHNOLOGY INTEGRATION

Cowritten with [MeetAmi Innovations](#)

With the continued help of our friends at MeetAmi Innovations, Canada's leading wealth management platform, we'll now dive deeper into relevant compliance considerations and issues around technology integration as you weigh the pros and cons of digital asset adoption.

To start, let's discuss the value of continuing education in this space.

How Does Technology Function as a Teaching and Learning Tool?

When it comes to continuing education, investment advisory firms have a dual purpose: to foster ongoing professional development and to guide clients on digital asset allocation in their portfolios. This learning process includes, among other things, understanding how

1. exchanges used by retail investors meet regulatory obligations and
2. institutional investors develop compliance protocols in their practices.

Coupled with a short- and long-term investment plan, continuing education helps ensure compliance is in sync with business and industry changes. Bo Howell, CEO of Joot and managing director of FinTech Law, recently gave a Cincinnati Bar Association Continuing Legal Education presentation titled “Building Blocks of Crypto.” This webinar provided background information on blockchain technology and sparked audience participation to weigh in on the future of this and other emerging technologies. Bo offered this advice to investment advisors and fund managers interested in developing crypto investment products: “Learn. Learn. Learn. RIAs and fund managers can’t simply chase another hot investment product. They need to have a working knowledge of how the underlying technology works, the risks to that technology (e.g., a blockchain fork or pending upgrade to the protocol), and the property rights attached to digital assets.” Ongoing education in this rapidly evolving space is crucial for industry participants to stay involved—and compliant.

Where’s the Disconnect?

Much of the digital asset movement has been built for and adopted by consumers for self-management, whereas advisors need tools to bulk-manage accounts and report into traditional systems. With over 300 million crypto users (a number forecasted to reach a billion by the end of 2022), 400+ global exchanges, and self-directed learning, the digital assets environment has traditionally been consumer-focused, and

“all over the place.” Advisors need to be empowered to engage with digital assets on behalf of their clients. That empowerment comes from continuous learning and education, support, and simulated market interaction in a compliant, easily learned ecosystem.

AmiLearn is a new learning model for wealth advisors seeking proficiency in this new asset class. The platform consists of small bites, curated news, master classes, and communities of practice—all ledgered on the blockchain. The platform was designed to support this intense, ever-changing learning curve.

Educating Advisors on Key Fiduciary Obligations

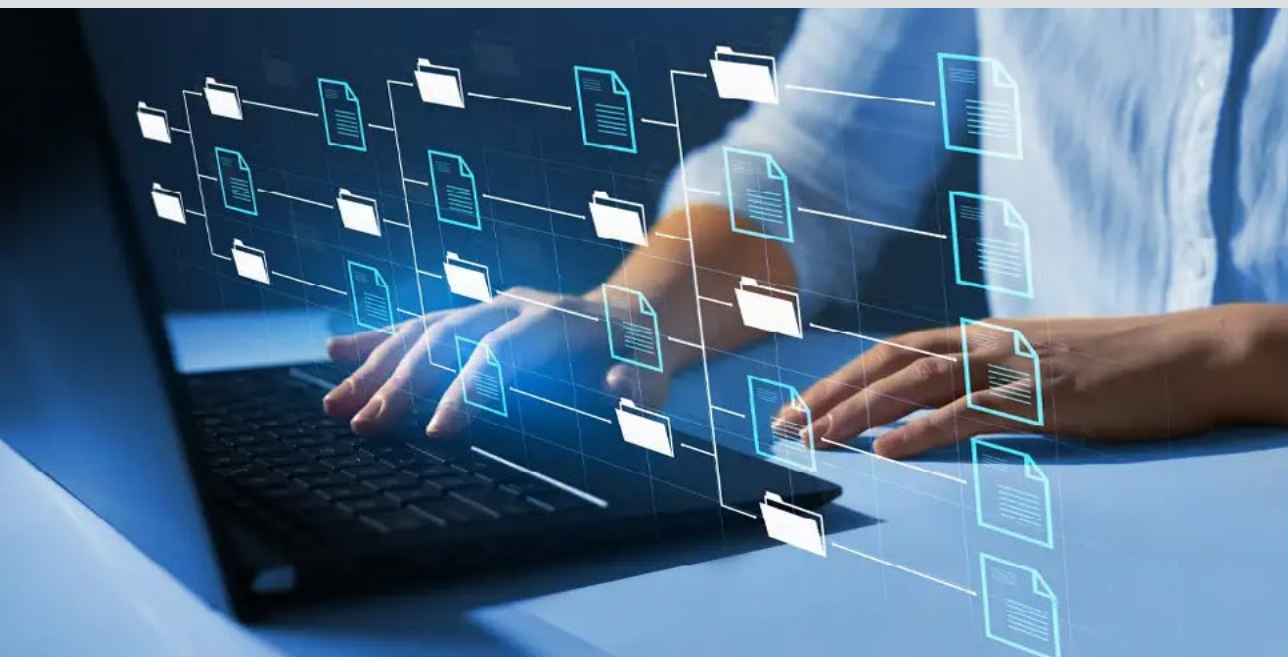
Technology will serve a key function in educating advisors on new fiduciary obligations, including know-your-customer (KYC) standards as well as taxation, custody, and insurance issues. As local, federal, and global rules, regulations, and entire regulatory bodies are still being developed and understood, advisors need to stay updated on regulatory developments to meet their fiduciary duty and to effectively manage digital assets. Regular exposure to breaking news, legal precedents (both national and international), tech advancements, and developing projects is paramount for advisors as they implement risk management strategies.

Two other areas that frequently trip-up product sponsors are anti-money laundering (AML) regulation and cybersecurity requirements needed to protect assets. These regulatory issues must be considered before investment advisors and fund managers develop and launch a product or invest client assets in cryptocurrencies and other digital assets. Many still consider cryptocurrencies to be nothing more than an anonymous method of transacting illegal money, though that myth has been disproven thanks to tracing techniques and wallet transparency. Cybersecurity issues mostly arise in the transition from decentralized platforms (blockchains) to traditional finance systems or transactions between separate blockchains. The very nature of decentralizing lends itself to more secure networks of nodes. Advisors and their firms must

consult with cybersecurity experts who specifically focus on the application at hand.

The Path Forward

The influence of technology in understanding and learning about digital assets cannot be understated. In a digital world that relies on cryptography, decentralization, international cooperation, transparency, and a plethora of cutting-edge technologies, traditional learning methods simply cannot keep pace with—or fully express—a true understanding of the digital asset ecosystem.



7 Keeping up with Crypto from a Recordkeeping Perspective

By Michelle Morgan of
Titan Technology Group

Now we're going to cover recordkeeping, the less glamorous—but very necessary—part of the new digital asset class of crypto. This chapter examines the technology needed to keep up with crypto from the unique perspective of the CEO (a fund-administrator-turned-technology-provider) of the Titan Platform by [AdvancedAIS](#). It's intended for fund managers doing their own back office, fund administrators, and anyone curious as to what the challenges are with crypto and why not all fund administrators/software platforms offer crypto functionality. Let's dive in.

What Prevents Legacy Systems from Keeping up with Crypto?

Volume, Volume, Volume!

Volume Challenge #1: Increase in Daily Trades

Legacy systems were originally built to support 30,000 trades per day. From a fund accounting perspective, this means that after a manager makes a trade, it is duplicated in a portfolio accounting system, costs are tracked, relevant foreign exchange (FX) rates are factored in, and journal entries are generated. It gets more complicated if there is a sell or cover, as the system then needs to determine what cost methodology is being used—FIFO (first in, first out), LIFO (last in, first out), HiCost, LoCost, Specific, HiTax, LoTax, etc.—and apply this methodology. So if you're selling Apple using FIFO, the system needs to go through all the portfolio holdings at the tax lot level, and then figure out which lot(s) to relieve the sale against. Finding the first available tax lot in 30,000 daily trades to relieve the sale against isn't a problem. Three million trades, however, can be challenging. And that's the volume we're seeing in some crypto strategies.

Volume Challenge #2: After-Market Trades

Supporting three million daily trades, including sales that need to be matched up to tax lots using FIFO, is time-consuming enough. An extra challenge comes in the form of additional trades that are out of the market. They still need to be factored in, so systems need to be able to recalculate cost relief on millions of trades at the touch of a button.

Volume Challenge #3: Cross-Exchange Trades

Arbitrage across exchanges is the next domino in the volume challenge. Managers are trading at the microsecond level across exchanges. But these exchanges don't talk to one another or have standardized data or reporting. So, for example, when these millions of daily trades are downloaded, you may see 20,000 Bitcoin disappear from one exchange. You may then see 19,999.99999985 units appear in another exchange in the same microsecond. When this happens, you can match the trades up and assume there's a transfer and the difference is a fee. This process is easy enough to go through for 10 or 15 transfers, but the



Finding the first available tax lot in 30,000 daily trades to relieve the sale against isn't a problem. Three million trades, however, can be challenging. And that's the volume we're seeing in some crypto strategies.



the volumes are usually much too high to accommodate a manual process.

The solution is to employ a platform that can amalgamate all activity, look at microsecond-level time stamps, use artificial intelligence to determine transfers and fees, and build the chronological trade order from exchange transfers, decentralized exchange (DEX) trades, and over-the-counter (OTC) movements.

Volume Challenge #4: Reporting

A year ago, one of our fund admin clients was working with an audit firm that asked for an exhaustive Excel list of a crypto fund's transactions. Excel includes a maximum of 1.9 million lines, so for many crypto funds, a single file won't capture a full year's worth of crypto transactions. And you wouldn't want it to—the file would be huge! When the auditors continued to insist, the fund administrator emailed them several files of trades which were so large that Excel froze every time the auditors tried to run their macro-based sample testing programs. Service providers need to be able to think beyond their traditional approaches. In this case, Titan provided JSON files to accommodate reporting volume.

What Are the Consequences of Not Having This Information Available?

The 2021 tax season highlighted many shortcomings occurring in the crypto landscape. Some investment managers were in hot water with the tax authorities because they couldn't provide a realized gain/loss schedule. Certain administrators had to explain to the auditors why they didn't have readily available transaction details.

The consequences are wider spread. If you can't track it, you can't audit it. And if you can't audit it, you can't regulate it. And this can lead to knee-jerk reactions from governments.

Where Is the Tech to Keep up with the Tech?

If a fund accounting software can track long/short equity funds, why can't it handle crypto? The underlying problem is that most fund accounting platforms are 25–30 years old and were not designed to adapt. Many legacy systems simply weren't built for the kind of volume we're seeing in the crypto space. Some were designed before the cloud existed, so the speed and the adaptability just aren't there. When trying to account for crypto, legacy systems can get tripped up by some additional factors, including decimal places, in-kind subscriptions, hybrid funds, and exchange communication.

- **Decimal Places:** The majority of systems were designed to account for two decimal places in pricing. Maybe even four if they're somewhat forward-thinking. Fair enough. Who could have envisioned an asset class whose assets are priced out up to 45 decimal places?
- **In-Kind Crypto Subscriptions:** Most systems have been designed to accommodate, for example, a GBP class within a USD class fund. Increasingly, however, investors are subscribing in-kind to a USD fund with Bitcoin and want their share class denominated in Bitcoin.
- **Hybrid Funds:** Fund technology platforms have historically been designed to support either hedge funds or private equity (PE) funds. As the lines continue to blur between these types of funds, historical systems aren't designed to accommodate the characteristics of each

For example, a PE fund with a liquid portfolio of Bitcoin and Ethereum often ends up being tracked on a different system or (gulp) on an Excel spreadsheet.

- ***Communicating with Exchanges:*** In the beginning, exchanges didn't follow a standard when setting up their data flow. Each exchange was set up differently. Since then, the process of standardizing data has improved, but it's still a bit painful. Unlike with traditional brokers, administrators and investment managers don't receive data from an exchange via a CSV download. These parties need IT resources to help bring data in, because data these days is transferred via an authenticated API, which is often beyond the skillset of a typical accountant (this one included!).

Here's a funny story to demonstrate how accountants are always the forgotten ones. In the early days, some exchanges were set up with only one kind of access, with which managers could buy and sell crypto and access their records. Clearly, the managers wouldn't and shouldn't have given access to anyone else but themselves. So until the exchanges caught on that they also needed to provide read-only access, the investment managers had to download the reports daily and send them to their fund administrators.

At the time this article is being written, some exchanges will send information only in response to very specific requests. For example, users can ask for records of transactions that involve a sale of BTC for ETH, but they can't request a listing of ALL trades. Many combinations of trades and new securities are being created all the time, so this is not an efficient process to gather information. It also isn't a process that auditors can rely on to satisfy their completeness requirements.

Where Are We Now?

There is a big demand for fund administrators that can keep up with crypto. But not all fund administrators have systems that can support this asset class. There are some "add on" programs that can bring in the trades, but having a non-integrated program at such high volumes increases data transfer risk. Some administrators have decided that



There is a big demand for fund administrators that can keep up with crypto. But not all fund administrators have systems that can support this asset class.



they won't administer crypto funds, for whatever reason—be it lack of technology or incompatibility with their risk appetite. But there are also investment managers who dive into this asset class, and their administrators find this out after the fact. They're then left scrambling to figure out what to do.

Some administrators are taking on crypto funds with their own proprietary systems that haven't been able to keep up and have let their investment manager clients down. This has a “once burnt, twice shy” effect with these investment managers who are not just switching administrators but looking to license an in-house system. (I haven't marketed heavily to investment managers and was surprised to receive five calls in one week from various managers who all wanted to do their own back office.)

We've heard rumors of some companies using NAV Lite (simply using their ending balances as their net asset value, or NAV value). But this kind of approach completely ignores relief methodologies and doesn't discharge a fund's duties of keeping adequate books and records.

Will the Legacy Programs Catch up to Crypto?

They might, if they're designed to adapt to high volume, to be flexible enough to change, and to test and deploy changes efficiently.

Modern programs employ a technique called Test Driven Development, or TDD. In this methodology, a test is written at the beginning of programming a new functionality. Something like, "If we buy a Canadian option in our USD denominated fund for \$A with a fee of \$B at an exchange rate of \$C and it sells for \$D at an exchange rate of \$E in Canadian dollars, we expect to see a realized gain of \$F and here are the journal entries we would expect to see generated." That test is saved, along with hundreds of thousands of other tests, as the program is built. When something new (e.g., crypto transfers) is programmed in, these hundreds of thousands of tests are run to ensure that nothing has broken or changed in the process.

This TDD methodology wasn't created until about 20 years ago. This means that older programs do most of their testing manually, which of course makes it harder to keep up with releases. This manual testing also makes these systems more prone to error and much more expensive, as they require armies of manual testers.

What's Next?

Daily trade volumes keep increasing. And the pace of change continues to increase.

There seems to be something new every two weeks in the crypto space. From a technological support point of view, keeping up with what is coming next down the pipeline—be that decentralized finance (DeFi), microsecond trading among exchanges, movement of data, etc.—is a constant.

No finish line is in sight when it comes to supporting the finance industry. There will always be changes and new demands—new types of swaps, more stringent privacy rules, regulatory changes that allow over 2,000 shareholders, or entirely new asset classes. To stay relevant, modern systems don't just need to be able to handle change—they need

to expect change and plan for it. Even if we don't know what the changes are going to be, we can build the software programs to be able to pivot when needed.

The original risk concerns around crypto custody and ownership have shifted as the asset class has become better understood. The landscape continues to evolve and the administrator crypto challenges may look totally different in a year. But one thing holds true: these new challenges highlight the fact that modern and adaptable technology is needed to keep up with crypto.

William Hartz: How did you personally get more involved in the cryptocurrency area?

Bo Howell: Like most people, I had heard of cryptocurrencies but had not participated in the asset class. In 2021, I had a legal client that wanted to launch one of the first mutual funds for investment primarily in Bitcoin futures. I used that opportunity to learn more about the crypto space, including some certifications from Coursera. I even took time to build a mining computer and join a mining pool. Pro tip: these energy hogs can replace a small space heater in your home! I also scored some dad points shortly after getting up to speed in this space when my 18-year-old and 13-year-old sons separately talked to me about crypto (a strong indicator that the asset class is now mainstream). They were impressed that (1) I had heard about numerous cryptocurrencies, (2) I actually owned a few, and (3) I had built a mining machine!

Since late 2021, my clients and I have had numerous discussions about the crypto regulatory space with senior staff members at the SEC. I also started blogging on the topic. Since then, I've worked with RIAs and investment companies that are introducing cryptocurrencies as an asset class, advised startups that are looking to leverage blockchain technology in their businesses, and more. Over the next few months, I will be presenting continuing education courses for lawyers on the topic, speaking at ABA events on the matter, and working with Joot and FinTech Law clients to manage the regulatory landscape.

Hartz: Can you give us some examples of the types of abuses and scams that have happened in the crypto space?

Howell: Cryptocurrency is a boon for scammers because many market participants do not fully understand the underlying technology or marketplace. From October 2020 through April 2021, the FTC fielded nearly 7,000 reports from consumers about scams. The median loss reported for these scams was \$1,900. The FTC cautions people interested in cryptocurrencies to look for obvious signs of a scam, such as someone insisting on cryptocurrency for payment, a guarantee you'll make money, or a promise of guaranteed returns and big payouts. Scammers also make big claims but do not provide details about how the investment works or where your money is going.

As a result of persistent fraud in the marketplace,

regulators are focusing more attention and resources on protecting investors. The SEC has brought numerous enforcement actions against players in the crypto and DeFi space. For example, the SEC [settled an enforcement action against a DeFi platform and its executives](#) for unregistered securities sales of more than \$30 million and misleading investors. Blockchain Credit Partners used smart contract and DeFi technology to sell two types of digital tokens: mTokens and DMM governance tokens (DMG). The mTokens paid fixed interest and the DMG tokens purportedly gave holders certain voting and profit-sharing rights. The DMG tokens were meant for resale in a secondary market. The SEC found that the tokens were investment contracts under the Howey Test, which turns any contract, scheme, or transaction into a security if there's an investment of money in a common enterprise with a reasonable expectation of profit from the work of others. Therefore, the offerings should have been registered under the Securities Exchange Act of 1934.

More recently, the SEC brought a civil lawsuit against Ryan Ginster for engaging in two unregistered and fraudulent securities offerings. In [SEC v. Ryan Ginster](#), the staff alleged that Mr. Ginster sold about \$3.6 million in Bitcoin through multiple coin exchanges, promising unrealistic rates of return. Mr. Ginster then converted about \$1 million of the Bitcoin into cash and used it to pay personal expenses. In a [press release](#), Michele Wein Layne, Regional Director of the SEC's Los Angeles Regional Office, stated that "[i]ndividuals who hide behind the anonymity of cryptocurrency transactions to defraud investors should expect that the SEC will trace their illegal activity and hold them accountable for their actions."

On December 2, 2021, the SEC brought another crypto-related enforcement action, this time for a [foreign scheme that allegedly defrauded retail investors of more than \\$7 million in two unregistered digital asset securities offerings](#). This time, the case was brought by the SEC's Cyber Unit, a specialized unit within the SEC's Division of Enforcement. In the [press release](#), Kristina Littman, Cyber Unit Chief, reiterated that the SEC "will continue to detect and pursue those that seek to victimize investors in the digital asset space."

Hartz: What are the investor protection gaps regulators are most concerned with?

Howell: Last summer, SEC Chair Gary Gensler spoke at the Aspen Security Forum on the current state of U.S. crypto asset regulation. In his speech, Mr. Gensler

acknowledged the contributions crypto assets and blockchain technology have made to financial and monetary innovation. But he also noted the immediate need for investor protection considering the hype, frauds, scams, and abuses in the crypto asset space that have harmed investors. In particular, Mr. Gensler warned about significant investor protection gaps with respect to foreign and decentralized crypto trading platforms that fail to prohibit U.S. investors from participating. He noted that some products, such as mutual funds that invest in Bitcoin futures, include the significant investor protections provided by the Investment Company Act of 1940, but he stressed that further congressional action is needed to close regulatory gaps regarding crypto assets.

Hortz: What are the key regulatory issues related to registered crypto funds?

Howell: The novelty of crypto-based funds and their potential risks mean they must undergo regulatory scrutiny by the SEC's Division of Investment Management, which reviews all new mutual fund and ETF filings. To meet these regulatory requirements, the fund's sponsor, its legal counsel, and other service providers must respond to numerous comments and requests for information from the SEC and its staff. As registrants navigate the regulatory gauntlet, they're likely to encounter 10 key issues, each of which I walk through in a recent blog post [see Chapter 2].

To date, the SEC has not permitted any registered investment company to invest directly in cryptocurrencies on a principal basis. And the only crypto derivative that's permitted as a primary investment in registered funds is CME Bitcoin futures. I believe CME Ethereum futures will be next, but there are some technical and market hurdles that need to be cleared before registered funds can primarily invest in that asset.

Hortz: Please share with us your experiences in helping one of your fund management companies register a Bitcoin futures fund. Are there any differences or steps you must take for crypto versus other mainstream fund products?

Howell: Given the novelty of digital assets in mainstream capital markets, launching the product required close engagement with the SEC. At the end of the day, we were successful in launching the fund because IDX Advisors and the fund's administrator were familiar with both digital asset markets and the regulatory landscape, and they were able to demonstrate that this type of fund was

ready for a mutual fund structure. It also helped that a few other products launched shortly before ours, including the ProShares Bitcoin Strategy ETF (BITO).

But launching the product wasn't easy. The SEC staff is still learning about these asset classes and developing regulatory policies to address them. The staff's initial concern focused on the underlying market, primarily liquidity. But crafting disclosure for Main Street investors was also challenging. First movers need to lead a significant education effort because investors are still developing crypto literacy. We worked closely with SEC staff to make sure the investment and risk disclosure were complete, accurate, and easy for Main Street investors to understand.

Additionally, the current regulatory rules were not written with digital assets in mind. It's challenging to take rules written in 1940, 1975, and even 10 or 20 years ago for traditional assets like equity or debt and make them work for newer asset classes like cryptocurrencies, non-fungible tokens, and DeFi products. Market participants need to engage with the SEC staff and help craft a regulatory framework that works for market participants, regulators, and investors.

Hortz: Can you give us your perspective on this apparent battle between the SEC and the CFTC over who regulates the growing crypto marketplace?

Howell: Currently, the SEC and the CFTC are racing to be the preeminent regulator of cryptocurrencies and crypto-related assets. The CFTC claims that crypto derivatives like futures and options are a commodity interest regulated by the Commodity Exchange Act of 1934, a law that was created long before crypto. Because of a lack of legal authority over currencies, the CFTC is trying to regulate derivatives of cryptocurrencies, but not the currencies directly. Unlike currencies, which are regulated by the Federal Reserve and Treasury Department, futures, options, and derivatives fall under the CFTC's authority. The CFTC can regulate futures and options markets but not "spot" markets, where commodities (like soybeans and copper) are traded directly. Most digital coin exchanges are considered spot markets.

The SEC is staking its claim on the definition of a security, which includes investment contracts as established in the 1946 Supreme Court case of SEC v. Howey. Oddly, the SEC has already said that Bitcoin and Ethereum, the two largest cryptocurrencies by market size, are not securities. But the SEC is trying to regulate initial coin offerings (ICOs), which would apply to any new cryptocurrencies hitting

the market, not those already in circulation. The SEC is also going after DeFi products related to lending and borrowing crypto on decentralized platforms. Since these instruments are more akin to debt, they're more clearly in the SEC's purview. And the SEC is going after crypto-related companies that have issued stock or other securities to investors. Those securities offerings, whether registered or unregistered, are also clearly in the SEC's authority.

Hortz: What do you see as the way forward on all these issues?

Howell: The fact remains that digital assets like cryptocurrencies don't fit neatly into the SEC's regulatory framework. It's a bit of a stretch to conclude that cryptocurrencies are a security, but digital assets that represent interests in startups, companies, and the like look more like securities. The rising popularity of decentralized autonomous organizations (DAOs) as investment clubs is another area where securities law and crypto assets cross paths. Regardless of the accuracy of the SEC's position, the crypto markets will see increased government regulation in the years to come, and many participants welcome it—as trust grows in these markets, more investors will participate. One group that would welcome crypto clarity is registered investment advisers, whose clients are increasingly interested in cryptocurrencies as part of their investment portfolio.

Hortz: Any recommendations or advice you can offer any advisers or fund managers looking to develop crypto investment products?

Howell: Learn. Learn. Learn. RIAs and fund managers can't simply chase another hot investment product. They need to have a working knowledge of how the underlying technology works, the risks to that technology (e.g., a blockchain fork or pending upgrade to the protocol), and the property rights attached to digital assets. Since digital assets are not tangible, often the only underlying property rights are intellectual property rights. If a crypto asset is supposed to represent an "ownership" interest in an underlying company, you may need more documentation than a simple token purchase to evidence ownership of the underlying asset (e.g., a smart contract).

Additionally, advisers need to understand whether a crypto asset is a security offering and, if so, whether it should be registered under the Securities Act of 1933. RIAs and fund managers need to avoid investing client assets in unregistered offerings because such offerings have a heightened risk of fraud or may be subject to SEC enforcement actions.

Other areas that can trip up product sponsors include anti-money laundering regulation and cybersecurity requirements needed to protect assets. All these regulatory issues need to be considered before developing and launching a product or investing client assets in cryptocurrencies and other digital assets.

This concludes our guide on cryptocurrency and its impact on the financial services industry. If you have any questions about any of the topics we cover here, please get in touch. We'd love to hear from you.



Thanks for your interest in Joot and FinTech Law.

We're committed to simplifying compliance for investment advisers and offering a full range of legal services and support for innovators and startups in financial services. Please get in touch so we can share more details on our vision and solutions.

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