



Federal Deposit Insurance Corporation (FDIC)  
RIN 3064-ZA25

## Digital Assets

Response to Request for Information and Comment

July 16, 2021

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Taxpayer Identification Number (TIN): 82-4596065  
Data Universal Numbering System (DUNS): 079529872  
Commercial and Government Entity (CAGE) Code: 783T6

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## 1.0 Introduction

Guidehouse is pleased to provide FDIC with responses to its questions relating to digital assets. We are a leading global provider of consulting services with broad capabilities in management, technology, and risk consulting. Headquartered in Washington DC, we are a top 10 consulting firm with more than 10,000 professionals in more than 50 locations worldwide. We have a dedicated Financial Services Advisory and Compliance segment serving both commercial and public sector clients that has earned three stars by Forbes for being one of America's Best Management Consulting Firms in both the Finance & Risk Management and Financial Institutions categories.

Within the financial markets, we provide advisory services to more than 200 leading global financial service companies and work with virtually every type of financial market participant including banks, credit unions, non-banks, central banks, governments, corporations, and exchanges. Guidehouse staff also have direct experience supporting resolutions and receiverships with the FDIC and we have assisted in more than 130 bank closings. We have banking expertise and understand bank functions, products, financial structures, enterprise risk management, and regulatory structures. Our experience working with banks, and understanding of their products and regulatory ecosystem when combined with our emerging technology knowledge has resulted in our natural progression in providing advisory and consulting services for digital assets. We believe Guidehouse can materially advance the FDIC's innovation efforts based on our commercial sector work combined with our FDIC and resolution experience.

We currently provide advisory and consulting services to various market participants in the digital assets and payments lifecycle, including the leading cryptocurrency/digital assets exchanges, peer-to-peer networks, Initial Coin Offering ("ICO") sponsors and administrators, broker-dealer money services businesses ("MSBs"), digital payments platforms, regulatory engagement, and industry-led initiatives. Our array of services to digital assets providers includes building financial crime and consumer compliance programs, reviews of existing compliance programs, strategic planning risk management, operational effectiveness and assessments, vendor sourcing and governance, and executive training. We have conducted investor due diligence, source of funds reviews, and on chain analysis of blockchain transactions. Additionally, we have served as the outsourced compliance team for several institutions.

## 2.0 Response to Requested Information

The sections below outline Guidehouse's responses to FDIC's requested information.

### *Questions Regarding Current and Potential Use Cases*

#### **1 In addition to the broad categories of digital assets and related activities described above, are there any additional or alternative categories or subcategories that IDIs are engaged in or exploring?**

To our knowledge, IDIs and their affiliates are engaged in or exploring digital assets and related activities in a few areas beyond those described above. These include:

- Custody and security of digital assets, including digital and physical security of assets and multi-signature wallet keys
- Acting as verifying nodes on public blockchain networks
- Post-settlement facilities for over-the-counter (OTC) crypto trading
- Venture investments in companies in the digital assets industry

Three other areas which are not being explored to our knowledge but may be areas of interest to IDIs in the future include:

- Retirement Products (401ks, IRAs, Investment Portfolios)
- Staking and yield farming in decentralized finance (“DeFi”) protocols
- Investing in NFT-backed assets (e.g., real estate)

**2 What, if any, activities or use cases related to digital assets are IDIs currently engaging in or considering? Please explain, including the nature and scope of the activity. More specifically:**

**a. What, if any, types of specific products or services related to digital assets are IDIs currently offering or considering offering to consumers?**

To our knowledge, some IDIs and their affiliates are engaged in or considering the following types of products and services related to digital assets:

- Crypto Custody:
  - Crypto custody for institutions
  - Crypto deposit custody for retail customers
- Crypto Payments:
  - Buy / hold / sell / check cryptocurrency balance within mobile account
  - International B2B payments; Real-time B2B payments
  - Crypto ATMs
- Crypto Trading
  - Liquidity provisioning for institutions
  - Cryptocurrency pair trading; crypto to fiat currency trading
  - Settlement and post-settlement activities for institutions
- Crypto Lending
  - Crypto asset-backed cash loans
  - Crypto reward credit cards

**b. To what extent are IDIs engaging in or considering engaging in activities or providing services related to digital assets that are custodial in nature, and what are the scope of those activities? To what extent are such IDIs engaging in or considering secondary lending?**

IDIs are exploring both building custody services in house and partnering with crypto service providers (e.g., Fireblocks, Paxos, NYDIG) to support cryptocurrency custody services for institutional and retail customers. These services include custody of digital assets and key management for cryptocurrency multi-sig wallets.

**c. To what extent are IDIs engaging in or considering activities or providing services related to digital assets that have direct balance sheet impacts?**

To our knowledge, IDIs are not fully engaged in digital asset services which have direct balance sheet impacts. Several insurance carriers have allocated a portion of their treasury balance to bitcoin or other digital assets, but this is not a trend that has significant traction yet in the banking sector. On the other hand, some IDIs and their affiliates are exploring lending products backed by digital assets (including cryptocurrency and stablecoin). Some considerations for the future include:

- If IDIs do not set up the correct operations and risk controls for the activities, any associated losses, fines, or lawsuits could impact their balance sheets.
- If an account has a margin element, volatile digital assets could impact the IDI’s balance

sheet.

**d. To what extent are IDIs engaging in or considering activities related to digital assets for other purposes, such as to facilitate internal operations?**

Some IDIs and their affiliates are exploring using digital assets (especially stablecoins) to facilitate internal operations (e.g., treasury operations, payroll, payment to service providers). Other financial institutions are using blockchain technology to facilitate sanctions clearance and trade finance transactions.

Lastly, some IDIs are partnering with crypto service providers to operationalize the provisioning of liquidity and post-trade settlement process required by customers such as OTC desks.

**3 In terms of the marketplace, where do IDIs see the greatest demand for digital asset- related services, and who are the largest drivers for such services?**

Demand for digital asset-related services among IDIs can be divided into two categories, institutional and retail.

On the institutional side, IDIs see demand from customers within Financial Institutions, Investment Funds, Private Equity, and RIAs, for the following services:

- Access to crypto exposure for investment portfolios
- Liquidity provisioning
- Post-trade settlement
- Digital asset custody
- Core banking services (for running operations of crypto native companies)

For the retail market, demand is coming in the following areas:

- Deposit / savings accounts in digital assets that provide superior returns (e.g., Gemini’s 7% on GUSD)
- Credit cards with crypto “cashback” rewards
- Access to buy / hold / sell crypto and trade crypto / fiat pairs
- Personal lending (crypto-backed loans)

The demand includes providing institutional clients exposure to crypto products, providing liquidity, and providing settlement services for cryptocurrency trading. Exchanges are underbanked. Silvergate, Cross River, and to a lesser extent, Metropolitan Commercial Bank appear to be the only financial institutions providing banking services cryptocurrency trading platforms. JPMC, however, recently initiated U.S. banking services to Gemini Trust and Coinbase.

***Questions Regarding Risk and Compliance Management***

**4 To what extent are IDIs’ existing risk and compliance management frameworks designed to identify, measure, monitor, and control risks associated with the various digital asset use cases? Do some use cases more easily align with existing risk and compliance management frameworks compared to others? Do, or would, some use cases result in IDIs’ developing entirely new or materially different risk and compliance management frameworks?**

IDIs with mature Risk and Compliance management frameworks should be well positioned to support various digital assets. In many ways, digital assets can be treated as a new product and

then maintained within the existing framework subject to some possible tweaks to manage the nuances of the product. This includes but may not be limited to the following components that generally exist in some form within mature IDIs:

1. Risk Appetite
2. New Product Onboarding – upfront due-diligence on the product, risk profiling, etc.
3. Customer Onboarding
4. Risk & Control Assessments
5. Regulatory Compliance (BSA, AML, OFAC)
6. Regulatory and Business Change Management
7. Liquidity Risk
8. Customer Complaints
9. Operational Risk
10. 3<sup>rd</sup> Party Oversight

## **5 What unique or particular risks are challenging to measure, monitor, and control for the various digital asset use cases? What unique controls or processes are or could be implemented to address such risks?**

Whereas digital assets can be managed to some degree through traditional risk management frameworks, there are also risks unique to digital assets that require enhanced risk mitigation and controls. These risks can be divided into five categories.

**Digital assets cross regulatory borders.** With the exception of so-called central bank digital currencies, digital assets are “borderless.” This introduces the potential for regulatory inconsistency in terms of how a digital asset is treated from an oversight and tax perspective. For example, bitcoin is legal tender in El Salvador whereas it is treated as property by the IRS and banned in other jurisdictions. XRP and other cryptocurrencies may be considered securities by the SEC. This could have implications in how the value of certain transactions across entities or individuals in different jurisdictions is assessed.

**Digital assets are bearer instruments.** In other words, the value of the asset (e.g., bitcoin) is tied to the digital representation of the asset itself. This means that transactions are irreversible and there is risk of assets being lost due to human or systematic error, trojan horse / insider attacks, or wallet hacks. Truly decentralized digital assets and protocols have no “3<sup>rd</sup> party” except for the counterparties executing the transaction in a peer-to-peer manner. This means that there is increased compliance burden on the entity enabling the transaction via the decentralized protocol if something goes wrong (loss of funds).

**Digital asset transactions are public but pseudonymous.** For digital assets such as bitcoin, the ability to monitor transactions is both easier and more challenging. On the one hand, the blockchain ledgers of decentralized cryptocurrencies like bitcoin are fully public and can be inspected by any third party with the right tools and skills. On the other hand, bitcoin transactions are pseudonymous and individual or business identities are not bound to individual transactions, but rather risk can be gleaned by clustering chains of transactions or wallet addresses that can be linked to risky persons / entities / marketplaces / jurisdictions at one end of the transaction flow. Even this analysis is confounded in some cases as crypto wallets give users the ability to generate billions of addresses, privacy coins obfuscate the origin and destination of transactions, and mixing services hide amounts and transaction paths.

**Synthetic or wrapped versions of digital assets may present systemic financial risk.** With digital assets being bearer instruments, there are risks of rehypothecation and obfuscation around

exactly what is rehypothecated and how many times over. For example, 1 BTC deposit means 1 BTC deposit only under specific conditions that need to be validated in different ways (e.g., on chain proof of reserve audits, proof of custody of multi-signature, etc.).

**Cryptocurrencies are volatile.** Volatility has been an attractive property of bitcoin and other cryptocurrencies from the perspective of traders, but this volatility creates risks around liquidity provisioning and monitoring, balance sheet stability, and other functions that rely on a currency whose value relative to other currencies and assets is stable.

## **6 What unique benefits to operations do IDIs consider as they analyze various digital asset use cases?**

Digital assets offer numerous benefits, many of which are the same properties that create new types of risk for IDIs and other FIs. These include:

**Near-instant, global settlement.** The potential benefits for business (e.g., improving global supply chain liquidity) and consumers (improving remittances) are numerous. In reality, different cryptocurrency protocols settle at different rates and in some cases, so-called “Layer 2” applications (e.g., bitcoin’s “Lightning network”) provide for instant settlement of transactions that eventually settle on the base-layer blockchain.

**Auditability of ledger.** This transparency has the potential to improve the efficiency of trade execution and other services (e.g., lending, internal book-keeping) since, in theory, trusted counterparties are not needed to verify transactions – the blockchain verifies those transactions and all counterparties involved can inspect the blockchain to verify for themselves.

**Collateral efficiency.** Due to the bearer asset nature of digital assets, collateral can be deployed and settled more efficiently, removing the counterparties and processes required for lengthy and costly processes such as foreclosures, repo, etc.

**New markets / underbanked.** Digital assets have the potential to provide access to financial services for a wide swath of currently underbanked individuals. This could take the form of interoperability with global cryptocurrencies such as bitcoin, or central bank issued digital currencies, which could enter citizen wallets directly in the case of stimulus payments, unemployment, etc.

## **7 How are IDIs integrating, or how would IDIs integrate, operations related to digital assets with legacy banking systems?**

The service provider ecosystem is developing rapidly to support end-to-end integration of services from simple use cases such as “buy / hold / sell” cryptocurrency to more complex use cases such as custody, post-trade settlement, etc. Service providers such as NYDIG have just announced integrations with FIS, mass enabling their crypto services to a large swath of IDIs. Similarly, Visa, PayPal, and other Layer 2 payment networks have integrated with crypto service providers or have built out infrastructure internally to support simple crypto use cases.

## **8 Please identify any potential benefits, and any unique risks, of particular digital asset product offerings or services to IDI customers.**

Potential benefits include significant operating efficiencies. However, in addition to the risks enumerated above, customers (both retail and merchants) have volatility risk associated with



cryptocurrency, potential liquidation risk (due to lack of transparency around some crypto lending products, especially overleveraged derivatives), and the fact that crypto transactions are, for the most part, irreversible and final.

Digital assets may also widen the gap between large IDIs and smaller IDIs, when considering efficiencies derived by the larger IDIs vs. the smaller IDIs that may not be able to afford the technology. This may also put the small IDIs in an increased risk environment.

## ***Questions Regarding Supervision and Activities***

### **10 Are there any unique aspects of digital asset activities that the FDIC should take into account from a supervisory perspective?**

The FDIC should consider the following unique aspects of crypto when considering digital assets from a supervisory perspective:

1. Custodial and non-custodial wallets have different properties and present different risks to institutions, consumers, and potentially the entire financial system.
2. Not all digital assets are created equal. There are thousands of cryptocurrencies and hundreds of stablecoins. Some have survived over a decade without suffering a hack or reorganization to the base layer blockchain whereas others are scams created by a small group of colluders.
3. Major cryptocurrency exchanges have high level criteria for listing coins, but these represent a lower bar from what would be required to assess the risk inherent to a particular cryptocurrency from a supervisory perspective.
4. Wrapped / synthetic assets tied to cryptocurrencies could present significant risks if the chain of the asset derivation (and its ownership) is not clear and auditable. This gets especially risky in the context of decentralized finance in which liquidity pools may pair different assets without requiring that a particular asset itself is staked.
5. In a digital environment, examination sample sizes can significantly increase, as they can and should be more easily examined electronically.

### **12 In what ways, if any, does custody of digital assets differ from custody of traditional assets?**

The primary ways in which custody of digital assets differs from custody of traditional assets are two-fold, which have been enumerated above. Briefly, they are as follows:

**Transaction irreversibility.** This creates significant risk of asset loss due to human / systematic error or wallet hack if the proper processes, cyber, and physical security controls are not put in place whenever assets are moved.

**Custody involves the notion of hot to cold storage.** Cold storage is “offline” storage of digital assets which requires the right physical and cyber controls to ensure the safety of those assets and the keys protecting those assets. “Hot” or “warm” storage are different degrees of custody where the assets are connected (online) to different degrees. This may be required to enable movement of funds in near-real time, but assets in this level of storage are the most at risk due to being online and connected to wallets that may have vulnerabilities.

**Multi-signature nature of signing transactions.** Different cryptocurrencies have different schemes for signing transactions to verify them and move them from one wallet address to another. In bitcoin, you can set up multi-signature schemes that enable multiple counterparties to hold different parts of a private key that enable a transaction to be signed. Multi-sig setups require their own set of controls (both technological and non-technological).

**13 FDIC’s Part 362 application procedures may apply to certain digital asset activities or investments. Is additional clarity needed? Would any changes to FDIC’s regulations or the related application filing procedures be helpful in addressing uncertainty surrounding the permissibility of particular types of digital asset-related activity, in order to support IDIs considering or engaging in such activities?**

The application should specify the FDICs position relative to stablecoin assets, cryptocurrencies, and, perhaps of least importance today but certainly growing in importance for the future, ownership of tokens that confer rights to Distributed Autonomous Organizations (DAOs). These tokens have a market capitalization in the billions and there is limited regulatory clarity on whether they are securities, property-like assets, currencies, or something else.

***Questions Regarding Deposit Insurance and Resolution***

**14 Are there any steps the FDIC should consider to ensure customers can distinguish between uninsured digital asset products on the one hand, and insured deposits on the other?**

A key element for the FDIC to consider first is to determine whether it is prepared to insure digital assets. If that is the case, the following initiatives may be helpful:

- Consumer Education and Awareness campaigns
- Disclosures
- Videos and Social Media Communications
- Coordination with CFPB UDAAP oversight

**15 Are there distinctions or similarities between fiat-backed stablecoins and stored value products where the underlying funds are held at IDIs and for which pass-through deposit insurance may be available?**

The distinctions are that fiat backed stablecoins need to be audited through a combination of an onchain audit (how much value is represented onchain in relevant wallet addresses in relation to how much is stated to customers?) with actual reserve audits (where are the backed dollars sitting at any given point in time, and do they reflect the wallet address deposits?).

**16 If the FDIC were to encounter any of the digital assets use cases in the resolution process or in a receivership capacity, what complexities might be encountered in valuing, marketing, transferring, operating, or resolving the digital asset activity? What actions should be considered to overcome the complexities?**

Guidehouse would welcome the opportunity to build a plan with FDIC to help address these complexities by leveraging our digital assets, banking, and FDIC resolution experience. We will include considerations such as the following:

- Digital assets do not have a Net Asset Value (NAV)
- Digital assets trade 24/7 with no market close date or time
- There is still a wide spread across exchanges for a given digital asset, even mature ones such as bitcoin

## *Additional Considerations*

### **17 Comments are invited to address any other digital asset-related information stakeholders seek to bring to the FDIC's attention. Comments are also welcome about the digital asset-related activities of uninsured banks and nonbanks.**

Other considerations that may be of interest to FDIC include:

- Exchanges are offering competitive or more user-friendly savings and lending options.
- Generation Y and Millennials are more inclined to use FinTechs and adopt crypto than traditional banks / fiat, respectively.
- Allowing FinTechs to access Fed accounts may help improve customer protections by ensuring that FinTechs, regardless of what products they offer, are held to similarly high and consistent standards to typical depository institutions applying for master accounts to Fed.

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