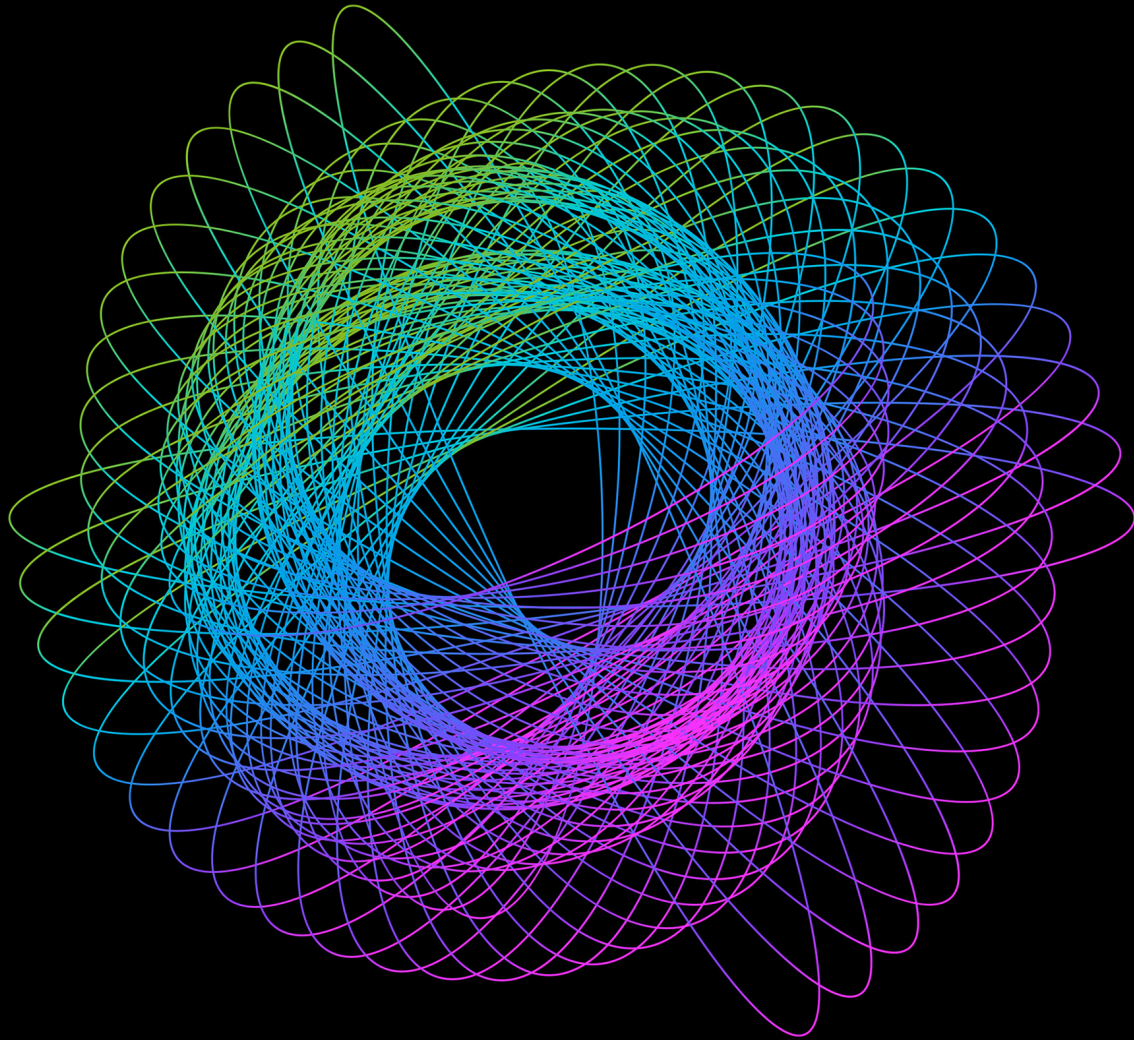


Deloitte.



So, You Want to Be a Crypto Bank?

**Deloitte Center for Regulatory Strategy
April 2021**

I want to be a Crypto Bank, now what do I do?

In the fourth point of view in our series, “so you want to be a bank”, we focus on how banks and FinTech companies can engage in crypto “banking” or engage in a range of activities related to cryptocurrencies. In July 2020, the Office of the Comptroller of the Currency (OCC) provided guidance that federally chartered banks and thrifts (collectively “national banks”) may provide crypto custodial services for FinTech using crypto assets and stablecoins.¹ For national, state-chartered banks and trust companies, and other FinTechs looking at the US banking system, these regulatory actions signal an opportunity to generate new revenue streams and provide crypto asset services to clients who want exposure to, and to engage with, this new asset class. This OCC issuance follows actions from a number of states authorizing crypto custodial and other services at their state-chartered banks.² These regulatory actions come in response to the rapid pace of innovation and the entrance of new players and intermediaries to the traditional financial services market.



This information is presented as of a point in time. Due to the evolving regulatory and industry landscape, analysis may need to be updated.

With increasing regulatory interpretation for existing license type and permissible activities, and broader industry adoption, many FinTechs and banking organizations are moving rapidly into the crypto banking space and exploring what products and services to offer. At the same time, a number of crypto service providers are trying to enter the traditional banking system through the pursuit of bank or trust charters. Several cryptocurrency companies have been approved for charters by the OCC or State banking regulators including New York, Wyoming and South Dakota. OCC and State banking regulators have set licensing standards for crypto bank approvals around ownership, management, capital, viable business model, and comprehensive compliance and risk management capabilities and have required extensive post-approval capabilities (e.g., IT/security risk management, Bank Secrecy Act (BSA) / Anti-Money Laundering (AML)).³

At the center of this growing convergence (of traditional banking regulators and charters, with crypto service providers) are financial products and services—such as lending, deposits and payments—enabled through crypto assets. With the growing interest of major institutions and individuals alike, funds continue to flow into the digital asset market, with Bitcoin drawing significant attention. As noted in Deloitte's 2020 Blockchain Survey, Corporate Executives highlighted the increasing trend of using crypto or evaluating crypto/blockchain in core business processes.⁴

Stepping back, this initial adoption of crypto/blockchain is the tip of the iceberg. It is less about how you respond to the current trends and how you keep focused on the bigger picture of where the underlying blockchain technology is heading. As interest in digital assets grows, new revenue streams related to services, including

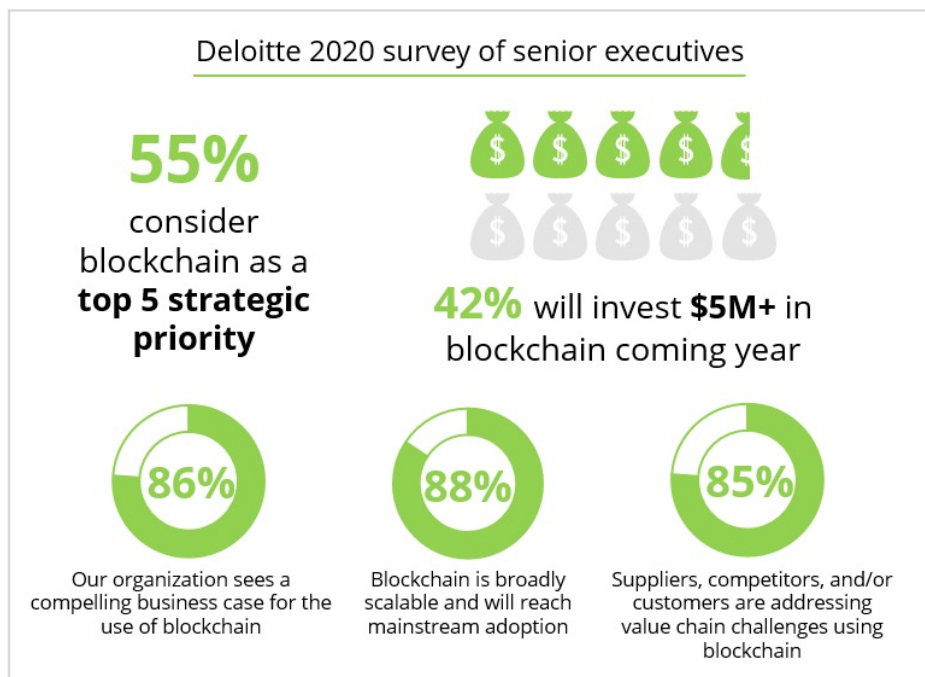
custody, exchange, trading, staking, lending, tokenizing, or issuing new digital assets will be made available. The pillars of the financial system today will likely be challenged (i.e., the use of a trusted intermediary to move money). Fintechs, bank and boards, and management teams can benefit from leaning in, studying the underlying blockchain technology, and plotting out a long-term strategy to navigate this transformational moment in financial services. As institutional demand for these assets accelerates, a growing number of custody and compliance systems are permitting institutional investors secure and compliant access to crypto markets. Approaching the space in a safe/secure manner, many major global financial institutions and companies are starting to show interest in cryptocurrencies and other digital assets that enable programmable money.

Interest and activity have also extended beyond traditional banking institutions, to include:

- Credit card companies (e.g., Mastercard) are enabling settlement using crypto on their networks.⁶
- Custodial banks such as Bank of New York Mellon have announced plans to custody cryptoassets on behalf of its clients⁷ and have recently taken an equity stake in cryptoasset provider Fireblocks.⁸
- PayPal Holdings Inc. acquired a rival of Fireblocks, Curv.; investment banks (e.g., Goldman Sachs⁹) are also showing movement in the cryptoasset market.
- Non-financial services industries (such as Tesla), are putting Bitcoin on their balance sheets and signaling that they plan to accept it as payment¹⁰ for goods and services.

While unanswered questions remain regarding regulation of these assets and how financial institutions will engage with

Figure 1: Deloitte 2020 Blockchain Survey across Industry ⁵



them, the guidance and actions from the OCC and state banking agencies have opened the door to opportunities and innovation. We also expect other US regulators to quickly catch up and attempt to address the patchwork of regulatory guidance that exists today across banking and securities regulators. Other countries like Singapore and Switzerland¹¹ are in the process of implementing licensing frameworks to address and regulate new and traditional payment and digital currency businesses, putting further pressure on US federal and state legislatures and agencies to further develop and clarify regulatory policy.

Switzerland

- In February 2018, the Swiss Financial Market Supervisory Authority (FINMA) published guidelines for initial coin offerings (ICOs) and categorized crypto assets based on the underlying economic function; applies the already existing financial market regulations to the crypto asset itself and its issuance and transfers; and differentiates between payment tokens (cryptocurrencies), utility tokens, and asset tokens.
- In August 2019, Switzerland's Federal Tax Administration (SFTA) issued guidance that cryptocurrencies are to be considered assets subject to the Swiss wealth tax and must be declared on annual tax returns.

Singapore

- In January 2020, the Payment Services Act (PSA) went into effect to regulate traditional as well as cryptocurrency payments and exchanges. The PSA provides a framework to obtain a license to operate a cryptocurrency business in Singapore, and outlines money laundering requirements to be met by cryptocurrency operators.¹²

Many Central Banks around the world are taking actions in an attempt to keep pace. A January 2021 study of 60 Central Banks by the Bank of International Settlements found that 86% indicated they were engaged in some work on Central Bank Digital Currencies (CBDCs) and 60% were either running experiments or proofs of concept, with 14% of Central Banks moving forward to development and pilot. Central Banks representing 20% of the world's population are likely to issue CBDCs in the next three years.¹³ As this happens and CBDCs become the norm, we expect that banks and FinTechs will be compelled as a commercial matter to accept digital assets as payments. In the US, the Federal Reserve – Boston recently announced testing with Massachusetts Institute of Technology (MIT) on a prototype for a US digital currency that they could preview in Q3 2021. In some respects, Central Banks view CBDCs as a mechanism to ensure their control continues over monetary policy, while their actions likely further accelerate the level of blockchain adoption.

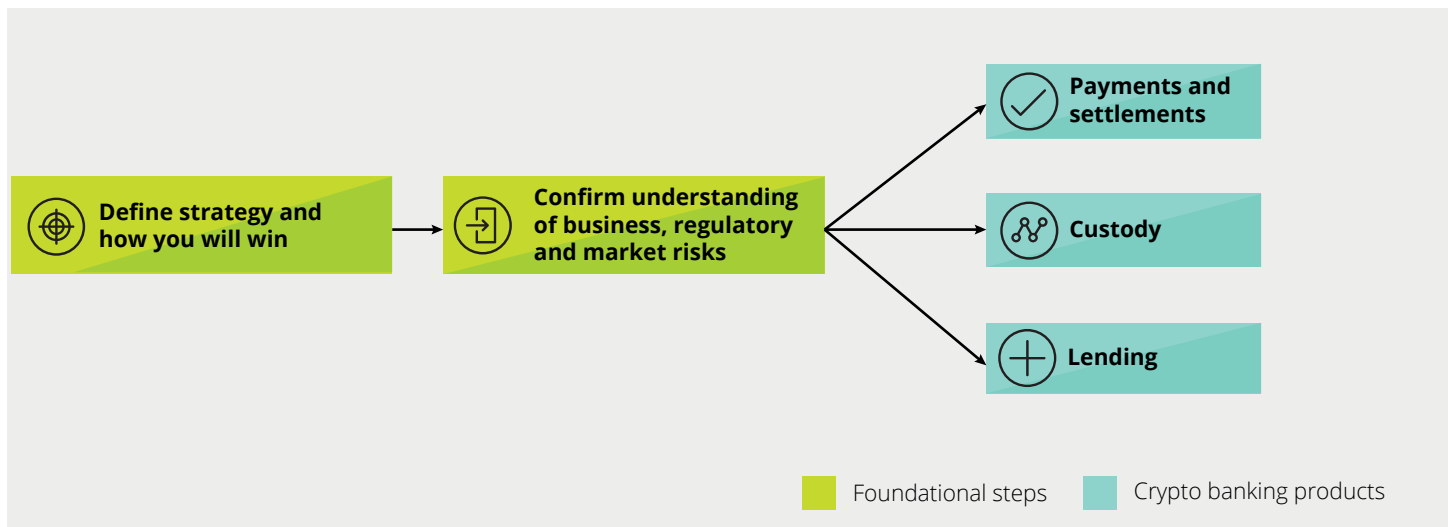
"...banks should think about the core competencies they have today vs. those they will need to offer crypto services. That combined, with the desired speed to market, can help determine whether you partner, acquire, or build those capabilities."

— Tim Davis, Principal, Deloitte & Touche LLP

I want to be a Crypto Bank, now what do I do?

Opportunity exists for those who are able to navigate the current regulatory dynamics and uncertainty, and who can position themselves strategically in market. Boards and management teams should focus on what they do well and the assets and strengths they can deploy. At a minimum, boards and management teams should understand the potential changes that blockchain and crypto may have on financial services. We have outlined a roadmap to help engage and unpack the potential crypto opportunities and risks.

Figure 2: Crypto Banking Roadmap



Define your strategy and how you will win:

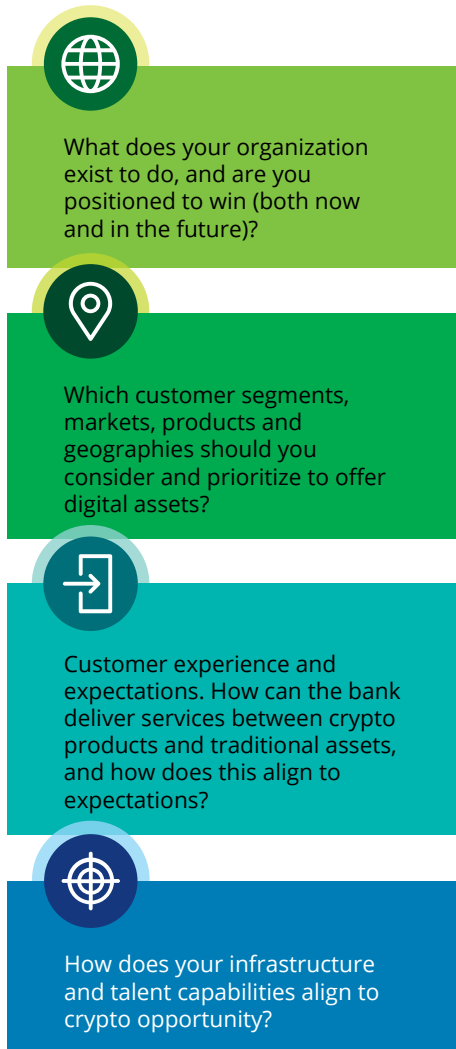
Business decisions around crypto banking should be anchored on what the banks and FinTechs are good at, and how crypto banking aligns to the overall strategy of the company. Key decisions around build vs. buy (re technology), and the overall strategy are defined here.

The initial starting point should consider your existing legal entity set-up and overall infrastructure capabilities. Financial services holding companies that control a full-service banking entity, a trust banking entity and a broker-dealer entity will likely have the greatest flexibility to offer the widest range of crypto related products. Products will range from the ability to accept FDIC-insured deposits, to provide custody of crypto assets and continue to access the Fed payment

system.¹⁴ As the regulatory framework becomes clearer, it is likely that the ability to offer a wider range of services may also grow. Banking entities engaging in crypto banking activities should anticipate high levels of supervisory interest and scrutiny. Broker-dealer entities have the authority to act as custodian of digital asset securities if the broker-dealer meets the “special purpose broker-dealer” criteria set forth in the US Securities and Exchange Commission (SEC) statement¹⁵ of “Custody of Digital Asset Securities by Special Purpose Broker-Dealers”. Both banking and broker-dealer entities also offer a range of payment, lending and trading options. Recently, most pure play crypto companies have pursued the route of a broker-dealer entity and a state or national trust company charter, providing the capability to custody crypto.


 See [Appendix B](#) on charter types.

Figure 3: Strategy Questions



Banks and FinTechs should ask a fundamental question: "If we decide to enter crypto banking, do we need to build it all?" Significant technology developments have enabled quicker adoption of digital banking platforms, which can now be built and implemented in hybrid operating models. An increasing number of companies today are looking to tap partnerships with crypto service providers. Some existing banks are also looking to leverage FinTech firms' advanced technology and popularity for launching certain new products and services. Significant opportunities exist to leverage sub-custodian relationships and other crypto service providers to enable crypto banking services.

Another key consideration when offering various products is the sophistication and nature of your customer base (institutional vs. retail), and what the overall expectations of customers are relative to crypto. One by-product of the pandemic has been that retail banking customers, across a range of age groups and income brackets, have shown increasing willingness to use on-line "digital" banking products and services. As the willingness of end users to embrace digital banking services continues to evolve, one of the key areas of differentiation will be how banks can offer a seamless customer experience across existing banking products and new crypto offerings.

 **Confirm understanding of business, regulatory and market risks:**

An understanding of market risks and regulatory and governance impacts is essential before entering crypto banking. The board and management should consider how crypto banking aligns to the bank's existing risk appetite, and what capabilities and enhancements will be required to deliver on strategy. The board should consider what skillsets exists to understand these emerging trends and risks associated with this business given current

institution strategy. Various market and business risks should be discussed at the management and board levels to balance the perspectives on the opportunity and disruptive forces of blockchain technology and cryptoassets:

- **Regulatory uncertainty:** Since the introduction of Bitcoin in 2009, US regulatory authorities have developed a patchwork of guidance to keep pace with crypto and blockchain innovation. This emerging crypto economy crosses boundaries between banking and securities activities and across state and federal oversight. Due to the fractured and complex nature of the US regulatory framework, cryptocurrencies in the US fall under the regulatory mandate of different bodies, depending on the crypto asset's intended function and characteristics. For instance, Bitcoin is considered a commodity and falls under the oversight of the US Commodities and Futures Trading Commission (CFTC). This division of regulatory responsibility has led to concerns regarding compliance with conflicting or ambiguous rules. One example of this is the debate around whether a digital asset (token or coin) constitutes a security, a commodity, or a payment, which in turn drives which regulatory agency or agencies have jurisdiction over the asset. In the US, the current regulatory approach to date is to distinguish between crypto assets that qualify as a "security", and those that do not. The SEC has issued guidance on this question, in the context of long-standing precedents for determining what is a "security" but that guidance has not ended the debate or been embraced in all quarters.¹⁶ Also, the IRS has confirmed that cryptocurrency is property for tax purposes. However, the Internal Revenue Code has many definitions of commodity and security requiring an analysis of each specific digital asset for tax purposes.

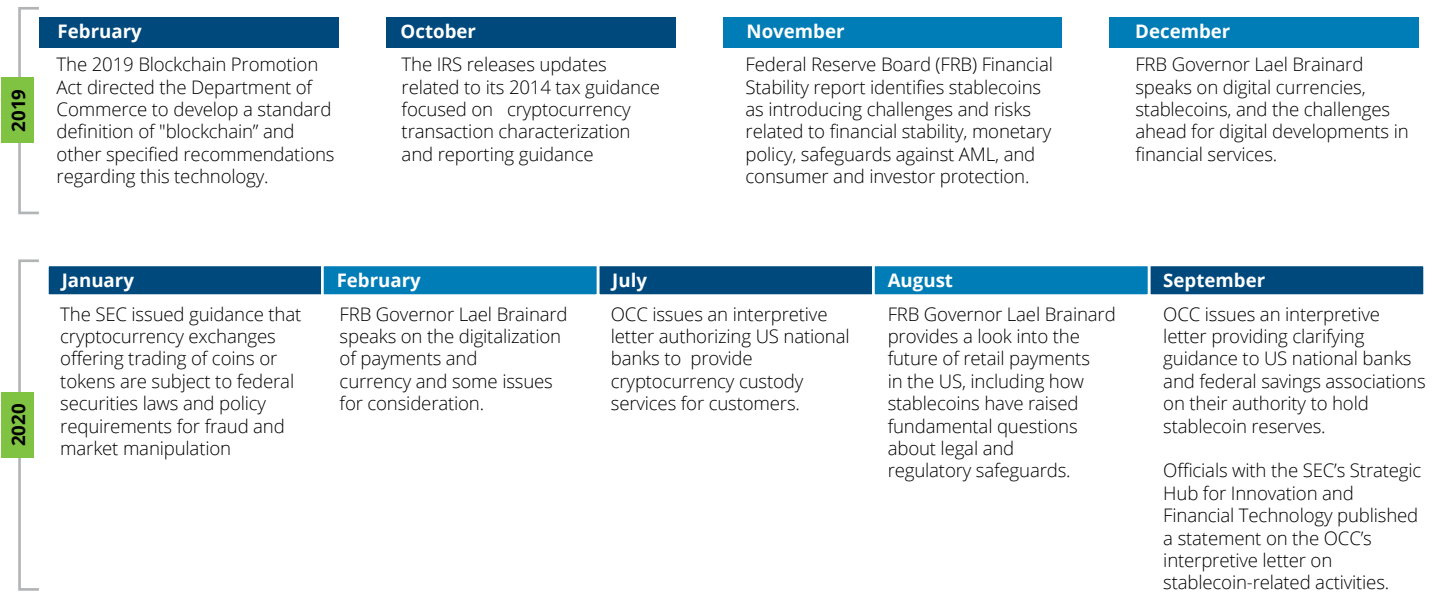
So, You Want to Be a Crypto Bank?

We have outlined below key steps taken since 2019 by various US regulatory agencies to begin to shape this landscape:

Figure 4: US Financial Regulators Key Announcements and Guidance (Feb 2019 – Sep 2020)¹⁷

■ Regulatory guidance

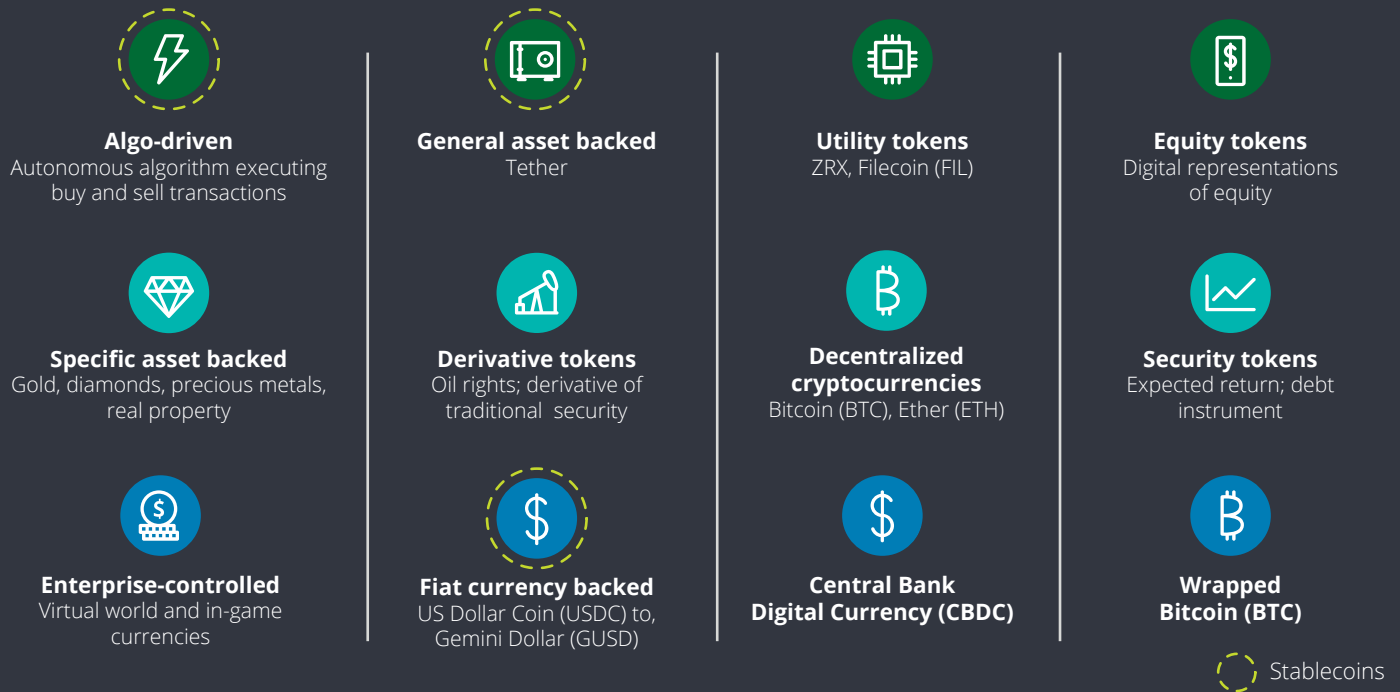
■ Regulatory announcements



It remains unclear as to whether the US will continue this piecemeal guidance effort, or whether the SEC, the banking regulators, and the CFTC will join forces and coordinate, or whether Congress will act to establish an end-to-end regulatory framework. In the near term, we expect US regulators to continue to issue additional guidance focused on concerns such as cybersecurity, AML, securities registration, anti-fraud, and transaction reporting risks that are associated with cryptocurrencies.



Figure 5: Types of Digital Assets in the Marketplace Today



- Security concerns:** Many financial services institutions are wary of entering into the cryptocurrency space simply because of security risks are not fully understood. This is shown by recent incidents like the Decentralized Autonomous Organization (DAO) Attack¹⁸ that further demonstrated the vulnerability of blockchains. There are no central authorities responsible for confirming, clearing, settling, and accounting for crypto transactions on public blockchains. Because of this, an asset that is accidentally transferred cannot be recovered. Due to risk aversion and regulatory complications, institutional culture and hesitancy toward change may present a hurdle for change and innovation, especially in the absence of secure technical infrastructure or adequately trained personnel. Authorizing and executing transactions and transfers, such as the cross-border transfers to subsidiaries, may create a series of risks.

You may be just a username and password away from complete control over those assets and that, for most companies, is an unacceptable level of risk for potential fraud or accidental loss.

- Rate of change:** The number of new entrants, evolving customer demands, increasing adoption of cryptocurrencies, and new technology being deployed at a high rate of change are increasing pressures on banks and some FinTechs to begin to place some bets on how this framework will evolve.
- Cryptocurrency Volatility:** There are concerns regarding the protection of existing customers from extreme volatility associated with cryptocurrency. Such volatility may present complications in both maintaining liquidity ratios as well as customer confidence.
- Risks unique to each digital asset:**¹⁹ The risks of underlying digital assets, including cryptocurrencies, vary considerably. Not all cryptocurrencies are

equal. Some are stable coins, some are asset-backed, some have a propensity for more volatility. Consequently, it is incumbent on banks to conduct rigorous due diligence regarding individual asset / coin operations, related market vulnerabilities, as well as associated terms and conditions.

- Accounting implications:**²⁰ When companies use digital assets that are accounted for as intangibles for business transactions, such as paying vendors, these transactions will require a different accounting treatment, which is more complex. That is a consequence of the intangible asset now being used as a tangible one (i.e., a financial versus a nonfinancial asset). The resulting financial reporting oftentimes doesn't align or "make sense" and may result in different aspects of the transactions being accounted for in different parts of the financial statements. Companies may want to consider what disclosures,

beyond required disclosures, may be meaningful. That said, more and more mainstream financial services and FinTech companies are now offering customers the possibility of holding or exchanging bitcoin. Audit procedures for banks serving cryptoassets will require unique methods for validating existence, ownership, and control of assets.

- **Tax Considerations:** When used for transactions like fund transfers or vendor payments, digital assets should be segregated into separate addresses or wallets to maintain a clear distinction between digital assets used in the operation of the business (ordinary assets) and digital assets held for investment (capital assets). Segregation is also needed to support specific identification of the assets and underlying tax basis of each tranche. Naturally, if digital assets are being used in place of fiat currency, such actions will generate a gain/loss recognition event for tax purposes under the umbrella of a barter transaction. That's the case every time digital assets are used in a business transaction. This has a related impact on accounting as well, and the process can become very complex on both fronts.
- **Compliance, Governance, and Controls:** Governance structures will need to be refined to account for crypto assets and blockchain. This will result in a realignment of risk appetites and controls. Controls frameworks have been designed to manage risks associated with traditional currencies. As new asset classes are introduced, frameworks will need to be recalibrated to account for new risks. It is critical that the company be able to ascertain that all stakeholders (including the bank, a third-party, or other service provider) in question are abiding by all relevant laws and regulations. Items on the regulatory radar for exchanges and custodians include: compliance with AML and know-your-customer

(KYC) regulations, measures related to counterterrorism, the Financial Action Task Force (FATF) Travel Rule²¹, and rules set by the Office of Foreign Assets Control (OFAC). In addition, as part of the due diligence, companies and the service providers they choose to work with should have a process to evaluate whether certain digital assets may be securities as defined under the Securities Exchange Act of 1934.²² Specific areas of focus include:

- **New Product Approval:** Demonstrate that the product/service has gone through new product approval, including senior level management approval and challenge. Management should ensure ongoing product risk reviews/monitoring occur relative to the product approval. Through this process, the board will also need to demonstrate active and ongoing oversight.
- **Information Technology & Security Risk Management:** Develop and demonstrate a comprehensive written IT risk and control framework and information security program that adequately addresses IT and information security risk with the implementation of key controls supporting safeguarding sensitive information
- **Compliance Management including BSA/AML:** Develop compliance management program including written BSA/AML and OFAC compliance programs that are consistent with the bank's products, services and customer base and reasonably designed to assure and monitor compliance with applicable laws and regulations, including the suspicious activity reporting requirements

- **Enterprise Risk Management including Risk Appetite:** Enhance risk appetite statements and limits where necessary and implement risk policies, processes and frameworks to govern and manage financial and non-financial risk. Ensure the application of clear roles and responsibilities across the Business, Risk, Compliance and Internal Audit for managing risks associated with crypto/blockchain activities.
- **Talent Capabilities:** Ensure people and talent are in place to manage and support the crypto banking activities. Risk and Compliance should be hired along with product lead.
- **Third-Party Risk Management:** Define a safe and sound third-party risk management program to effectively assess and manage the risks posed by third-party relationships (affiliated and unaffiliated), commensurate with the level of risk and complexity of the relationship.
- **Intercompany transactions:** Ensure that all contracts, agreements, and transactions between the bank and any affiliate, are fair and equitable to the bank, are in the bank's best interest, and are conducted in compliance with applicable federal laws (e.g., Regulation W or section 23A and 23B of the Federal Reserve Act).

Crypto Banking Specific Product Offerings

Payments and Settlements

Banks may choose to join or establish a blockchain-enabled payments platform to move funds between participants on the network allowing for 24/7/365, near-real-time, low to zero-fee transfers. This would require the bank to seek authorization to settle transactions facilitated by its affiliates, other third-party brokers, and by clients themselves. Clients or their brokers may direct the bank to receive digital assets into and to transfer digital assets out of their “vaults” from and to external accounts or digital asset addresses controlled by third parties, including but not limited to transfers made in connection with the settlement of a purchase or sale of digital assets.

Existing payment systems are being transformed by advances in instantaneous payments for commercial clients. Using public blockchains for cross-border payments and settlement, especially with stablecoins, is a new low-friction mechanism for transferring value outside of traditional payment systems. Integration of cryptoassets into established FinTech payment platforms has introduced new

on-ramps to crypto adoption and new payment rails using crypto for on-chain transactions. Large payment providers are enabling customers to make online purchases at millions of online merchants using cryptocurrencies, supported by crypto banking entities as liquidity providers (e.g., Paxos and Anchorage). This is creating a role for cryptobanks to provide crypto settlement capability/liquidity capability to existing payments infrastructure with stable coins (e.g. USDC). This will allow movement between legacy payments infrastructure and new evolving blockchain infrastructure.

Wider cryptoasset adoption and implementation in banking is the likely next step, and it appears it will soon be underway. Numerous large banking firms have filed patents involving blockchain technology for payment rails, internal payments, and other forms of payments. To capture opportunity associated with this trend, banks can establish or leverage an existing service provider to provide a blockchain-enabled payments network that uses deposit tokens to move funds between clients in near-real-time. Options exist to build vs. outsource this capability.

Key Considerations

- While not directly a high margin endeavor, by providing a near real time payments / settlement capability, a bank can entice an increase in fiat deposits as they come along with banking the crypto company
- International cryptocurrency payments will settle in real time at any time of the day, in contrast to traditional correspondent banking networks that can take much longer to settle
- Potential to eliminate third parties such as payment processors from the transaction process can help banks to stay competitive by offering lower fees
- Further evolve and enable KYC/AML capability for ongoing compliance and risk management monitoring

Case Study

Recently, Visa noted it's direct acceptance of payments in USDC to settle transactions, forging new connections between digital and traditional currencies. Visa collaborated with Anchorage, the first federally-chartered digital asset bank to launch the pilot that allows Crypto.com to send USDC to Visa to settle a portion of its obligations for the Crypto.com Visa card program. Anchorage's platform and Application Programming Interface (API) have been designed to launch new products in crypto that can help crypto native companies evaluate fundamentally new business models without the need for traditional fiat in their treasury and settlement workflows. Visa's ability to successfully integrate with Anchorage infrastructure will help accelerate their process to directly support new CBDC as they emerge in the future.

Source: [Businesswire](#)





Custody:

State and federally-chartered banks and trust companies have long had the authority to custody customer tangible and intangible property. These broad powers are reflected in the extensive product offerings of a number of US money center “custody banks”. Even with their broad custody powers and long histories of custody activities relating to complex assets, cryptoassets are new and, like any new thing, present new risks to bank and trust company custodians. This novelty also presented potential regulatory uncertainty. On the regulatory side, we have seen a number of states act to get in front of this wave. These states include New York, which has chartered a number of trust companies with business plans focused on cryptoassets. In July 2020, the OCC issued guidance confirming the authority of national banks and trust companies to act as cryptoasset custodians and to engage in related activities.²³ This federal confirmation of national bank authority may also help address any remaining uncertainty at the state level, especially in those states where the state-chartered banks and trust companies enjoy “parity powers” with their national counterparts.

Banks and trust companies seeking to “get going” face the typical risk identification and mitigation tasks at the heart of the business of banking. At the operational level, this will include deploying the technical infrastructure to provide that custody and integrating these new capabilities with existing systems. The required technical infrastructure can be established in house, or through a third-party sub-custodian. Growing numbers of institutional clients—just like all crypto-market participants—are seeking ways to safely provide custody and use cryptoassets. Custodying cryptocurrencies, as opposed to other assets like publicly traded securities, require a new kind of technical infrastructure.

Building this new architecture from the ground up is necessary for the secure storage and handling of cryptocurrencies.

Crypto custody models take a variety of forms. Recently licensed crypto banks/trust companies offer fully managed custody services to institutions that own and trade cryptoassets. Crypto exchanges, such as Coinbase, Kraken, Gemini, and Binance, offer digital wallets to enable retail investors to hold, protect, and trade cryptoassets. Third-party custody providers such as BitGo and self-custody models such as Ledger and Casa are technology solutions that store and protect cryptoassets. Broader custody services may also include providing on-chain governance services to allow clients to participate in the governance of the underlying protocols on which assets operate, and to provide staking services.

- Self-custody is the simplest and most direct form of custody, as the crypto owner holds its own private keys and therefore maintains complete control over those assets. But self-custody also presents additional risk in terms

of accidental loss, who conducts transactions, and how transactions are monitored and recorded.

- Given the inherent risks associated with self-custody, more and more companies are turning to third-party custodians. Then, it’s a matter of evaluating the strengths and weaknesses of different custody companies, processes, and procedures. Crypto balances are not covered by Federal Deposit Insurance Corporation (FDIC) insurance. If the custodian goes out of business or loses the crypto, customers have no government-backed guarantee of being made whole. While trust companies and bank trust departments are required to segregate customer assets and not bring them “on balance sheet” or otherwise co-mingle the assets with those of the custodian, this protection is only as good as the operations of the custodian and the oversight of the custodian’s auditors and banking supervisors. While the risk of cryptoassets being pulled into the custodian’s bankruptcy

Key Considerations

- Custody—the management of assets and the underlying cryptographic keys that cryptoasset owners use to execute transactions—is a critical capability of the crypto economy. It allows banks to engage with the crypto ecosystem and add adjacent operations and services, including cash management, collateralized lending, leveraged trade execution, and other white-glove support.
- Generate fee income from the stored assets, and own the crypto banking relationship—to attract new clients.
- Reputational uplift of being a “custodian” and offering virtual assets to the customers will help both institutional and retail investors to diversify their portfolio and acquire crypto assets.
- Linkage to provide loans and other lending services, which can generate additional interest income.
- Custody of crypto assets that are used in staking will create additional complexities and focus for custodians that can be managed. Specific processes and controls will need established to ensure interest/rewards are recorded and adjusted per the range of practices deployed by crypto exchanges and service providers. This is against a backdrop of increasing regulatory and tax authority focus on how these processes are managed.

estate are likely to be remote, they are not non-existent. Appropriate due diligence and vendor management oversight do not hurt in this space.

- For a bank or trust company custodian, engaging a sub-custodian may help mitigate risk and can also avoid the need to build the ground up systems to support these new assets. Here, the custodian's focus can be on integrating these services with their existing architecture. And, of course, conducting appropriate due diligence and vendor management practices and oversight are important for subcustodians.

Lending:

It is in the area of lending that banks face the fiercest competition from crypto service providers (e.g., major exchanges/platforms), custodial platforms (including hardware wallets); and the cryptographic asset networks themselves (decentralized finance (DeFi)). This is where the crypto service providers who are not supervised at a consolidated level by a banking regulator likely have the upper hand. Crypto service providers are leveraging existing securities-based lending frameworks and applying them to crypto.

Growing in popularity, DeFi protocols (decentralized lending & borrower networks) allow users to lend cryptocurrencies without the involvement of a third party (Compound, Aave, PanCakeSwap, PolkDot, Uniswap, etc.). In this instance,

smart contracts²⁴ dictate the terms and enforcement of lending agreements. The rise of DeFi has been driven by technology advancements enabling more effective decentralized governance. The most notable DeFi applications to date focus on decentralized peer-to-peer exchanges and lending of crypto assets. In this context, first movers including Uniswap, MakerDAO and Compound have exploded in growth and user adoption throughout 2020.

In both centralized and decentralized crypto-borrowing and lending models, crypto users can deposit or lend their cryptoassets to generate yield. Yield generation has proven to be a critical value-added service layer for participants who have taken investment positions with long horizons.

Banks are exploring asset-based approaches (where cryptographic assets would be used as collateral under the OCC's Asset Backed Lending framework²⁵ for making those loans)". Banks will, as always, have to contend with the supervisory focus on core credit and underwriting risks, and safety and soundness concerns regarding asset-based lending. Potential implementations of either approach should be viewed in conjunction with custody (custodian/sub-custodian) dynamics, collateral volatility and liquidity, and the creditworthiness of the borrower. Note that the established norms of accounting and tax implications of lending may not be applicable to loans of digital assets.

Key Considerations

- Regulatory framework around crypto based lending is not yet fully established or mature, with some remaining uncertainty around lien perfection, collateral, tax treatment and margin regulatory expectations
- Volatility will require significant focus on risk management that is calibrated to the type of underlying crypto
- Returns can substantially outperform existing lending products
- Continuing developments at the state level relating to the treatment of cryptoassets under their commercial codes, including those sections addressing the creation and perfection of security interests
- Ownership of crypto assets can be retained through loan collateralization as Banks will not lose ownership of their crypto to take out a loan

What to expect going forward

"To reach this potential and for public confidence, blockchain technology and the world of crypto finance it has birthed has to come within the norms of long-established public policy frameworks. Bringing the crypto world within the long-established public policy frameworks, though, will promote greater innovation and competition, allowing blockchain technologies to be explored to their fullest potential. It also will be critical that sufficient resources be provided to the CFTC, SEC and other agencies to adequately oversee crypto markets, especially as these markets have continued to grow." ²⁷

— Gary Gensler, SEC Chair Appointee, July 18, 2018

The recent confirmation hearings for the SEC Chair appointee (Gary Gensler) and the confirmation of Treasury Secretary (Janet Yellen) reflected the reality that the regulatory framework around crypto and blockchain is now a top priority. Gensler, the former chairman of the CFTC during the Obama Administration, is set to be the new administration's pick to take over the SEC. It is anticipated, given Gensler's background in crypto and the priorities he noted in recent testimony,²⁶ that this will be a top priority that for him. It is also anticipated that Gensler will seek to balance investor protection with promotion of capital formation using crypto-assets, and to ensure crypto does not become a side-door or back-door to circumvent regulatory frameworks. If Gensler is confirmed as the Chair of the SEC, he will likely drive the SEC to issue guidance providing greater clarity on market infrastructure for crypto-assets and a regulatory framework that will help the US take a step forward to provide clarity on central regulatory landscape efforts made by other countries such as Switzerland and Singapore.

Regulators will also begin conducting examinations for those organizations that custody crypto (including issuers and exchanges) to ensure that these areas are adequately addressed and, if not, take enforcement actions for non-compliance. Banks and trust companies planning to provide crypto-custodial services for crypto assets should prepare for heightened scrutiny and potential examinations by incorporating additional, crypto-related risks

into their risk assessments, and developing mitigating controls for these new risks.

As we look forward to Central Banks responding to blockchain/crypto, we could reasonably expect the pace of adoption of CBDCs to increase. CBDC has a high potential to disintermediate the existing paradigms of the banking model. Banking customers might choose to hold their money directly at the Central Bank. If that occurs at scale, it would disrupt legacy bank business models. Credit card volumes, interchange fees, payment transaction fees, and deposit interest margins could be impacted. This would impact existing Compliance responsibilities at the Central Bank and bank level, and force more of the responsibility to sit with the Central Bank. Commercial banks need to consider how to react to a prospective loss of deposit funding and start to prepare for this potential shift.

We also expect the rapid pace of innovation to increase with more product and service offerings developed, and more crypto service providers looking at entering or accessing the banking system. This will include further innovations in the areas around non-fungible tokens (NFTs).

This should further accelerate the convergence and competition of traditional banking entities and crypto service providers competing for a share of crypto/blockchain enabled financial products and services— lending, deposits and payments.

How can Deloitte help?

We can help clients translate the implicit and explicit capabilities of engaging in crypto banking while aligning to the company's overall strategy by bridging the gap between regulatory requirements and a company's existing business model. We can also help support business model and licensing decisions on what charter or product offering may make sense. Part of our process enables an end-to-end view of what it will likely cost and take to deliver your preferred operating model. Deloitte offers a suite of out-of-the-box capabilities across operational and technology solutions. In doing so, we bring together our deep regulatory, accounting, tax and technical knowledge and experience with our extensive understanding of financial services.



Viability Analysis

- **High-level business strategy** and value proposition
- **Assessment of potential options** and pros and cons assessment
- **Detailed understanding blockchain & digital assets** leveraging our in-depth coverage of the emerging industry, players and developments
- **Preferred product, operations and strategy options** based on qualitative and quantitative considerations



Capability Assessment

- **Comprehensive assessment of business, cyber, financial risks** and more, leveraging our deep understanding of traditional and emerging risks related to digital assets
- **Early and continuous focus on regulatory compliance**, identifying proper considerations and relations are in place to increase the probability of success.
- **Governance structure** and operating model
- **Talent and staffing model considerations** to inform the operating model design and financial impacts
- **Detailed business plan considering the established vision**, business model, and identified charter options
- **Detailed guidance on accounting for digital assets including analyzing complex contracts**, performing accounting research, developing accounting policies, and drafting relevant disclosures



Readiness and Implementation

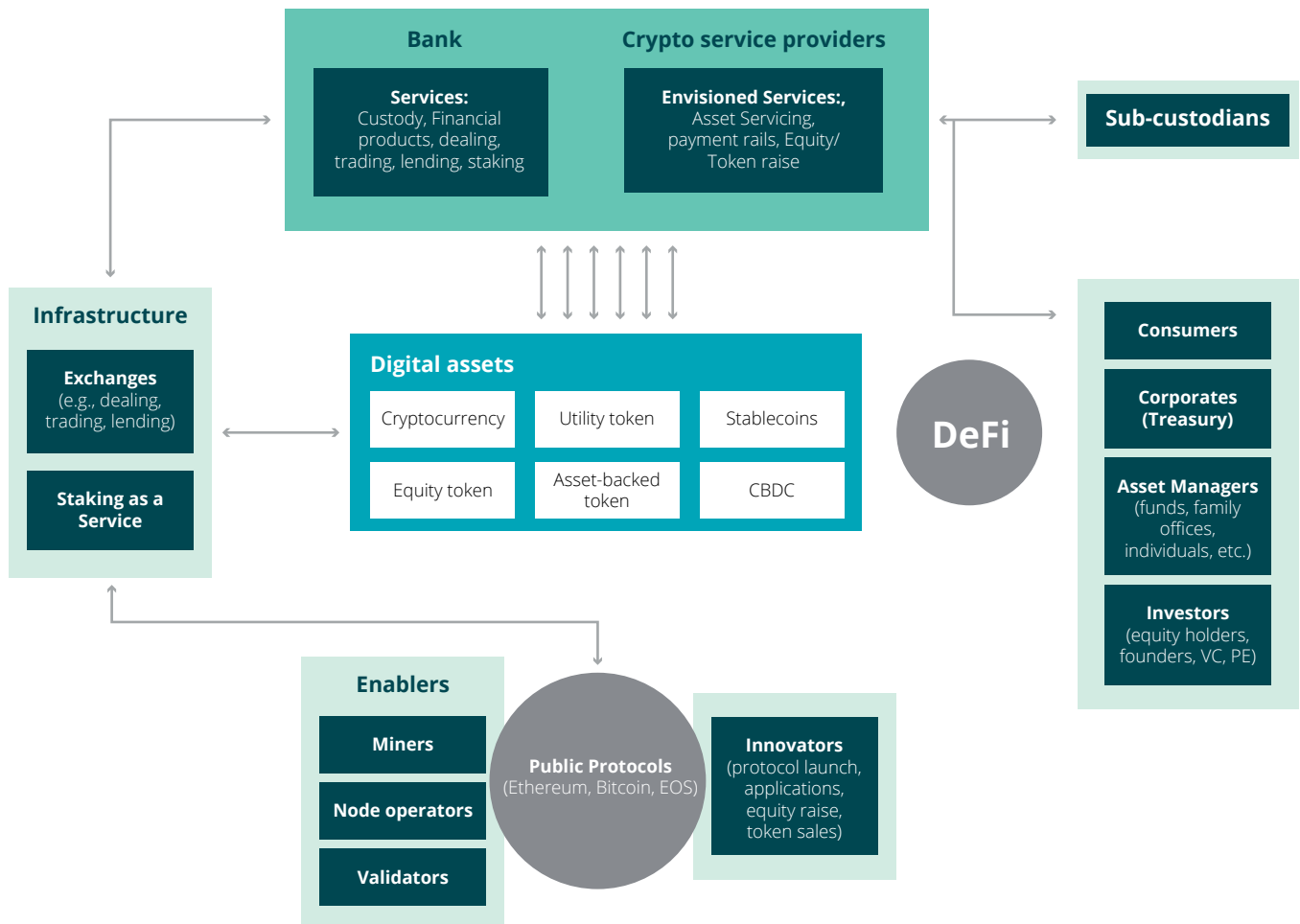
- **Brand launch and value proposition support** by gaining depth insight around customer behaviors and attitudes and developing customer journeys and Minimum Viable Product (MVP) roadmap
- **Commercialization of the experience**, marketing campaigns, and coordination with customer support
- **Technology and platform development support** via Global Blockchain Labs with in-house development capabilities and relationships with major technology providers. Provide understanding of operations and reporting requirements across the entire digital assets lifecycle to help mitigate potential impacts including the application of COSO to blockchain
- **Established tax optimization process** by structuring value capture systems across trading, custody, asset servicing, and funding to not only navigate tax uncertainties but also evaluate tax treatment of various models
- **Audit Readiness** by providing insights to companies preparing for a financial statement audit on accounting policies, financial reporting procedures, and controls documentation
- **Financial statement review** and auditing prior to regulatory submission
- **Digital asset classification** navigating through the rules and standards set forth to classify digital assets for tax purposes

Endnotes

1. Deloitte, "[The OCC's recent interpretive letter clarifying stablecoin-related activities for national banks and federal savings associations may further encourage these activities amidst growing public interest](#)" accessed on December, 2020.
2. Wyoming state regulators authorized the chartering of special purpose depository institutions (SPDIs), NYDFS issued its virtual currency regulation and South Dakota approved state licensed trust banking charters to attract companies engaged in digital asset activities.
3. Deloitte, "[So, you want to be a bank](#)", accessed on January, 2021.
4. Deloitte, "[Deloitte's 2020 Global Blockchain Survey](#)" accessed on December, 2020.
5. Ibid
6. Mastercard, "[Why Mastercard is bringing crypto onto its network](#)" - accessed on February, 2021.
7. Forbes, "[\\$2 Trillion Banking Giant BNY Mellon Reveals Bitcoin And Crypto Plans - 'Digital Assets Are The Future'](#)" accessed on February 2021 and "[Bitcoin Welcomes Tesla, Mastercard, BNY Mellon, Venmo To The Cryptocurrency Party](#)" accessed on February 2021.
8. Forbes, "[BNY Mellon Investment in Fireblocks](#)" accessed on March 2021.
9. Bloomberg, "[Goldman Sachs Explores Entering Crypto Market, CoinDesk Reports](#)" accessed on January 2021.
10. CNBC, "[Tesla buys \\$1.5 billion in bitcoin, plans to accept it as payment](#)" accessed on February 2021.
11. Global Legal Insights, "[Global Legal Insights - Singapore](#)" and "[Global Legal Insights - Switzerland](#)" accessed on March 2021.
12. Ikigai Law, "[https://www.mondaq.com/fin-tech/1025630/cryptocurrency-regulation-in-singapore-challenges-and-opportunities-ahead-?](https://www.mondaq.com/fin-tech/1025630/cryptocurrency-regulation-in-singapore-challenges-and-opportunities-ahead-)" accessed on January 2021.
13. Bank for International Settlement, "<https://www.bis.org/publ/bppdf/bispap114.pdf>" - accessed on January 2021.
14. Ibid.
15. SEC, "[SEC Statement Regarding the custody of Digital Asset Securities](#)" accessed on December 2020.
16. SEC, "Statement on 'Framework for 'Investment Contract' Analysis of Digital Assets'" and "Framework for Investment Contract Analysis of Digital Assets" accessed on April 2019.
17. Deloitte, "[Deloitte analysis of recent US financial regulatory announcements on stablecoin-related activities](#)" accessed on December, 2020.
 - 2019 Blockchain Promotion Act - <https://www.congress.gov/bill/116th-congress/house-bill/1361/text>
 - IRS 2019 updated Cryptocurrency guidance - <https://www.irs.gov/newsroom/virtual-currency-irs-issues-additional-guidance-on-tax-treatment-and-reminds-taxpayers-of-reporting-obligations>
 - November 2019 FRB Financial Stability Report - <https://www.federalreserve.gov/publications/files/financial-stability-report-20191115.pdf>
 - December 2019 FRB Speech: Update on Digital Currencies, Stablecoins, and the Challenges Ahead by Governor Lael Brainard - <https://www.federalreserve.gov/newsevents/speech/brainard20191218a.htm>
 - January 2020 SEC Spotlight on Initial Coin Offerings (ICOs) - <https://www.sec.gov/ICO>
 - February 2020 FRB Speech: The Digitalization of Payments and Currency: Some Issues for Consideration by Governor Lael Brainard - <https://www.federalreserve.gov/newsevents/speech/brainard20200205a.htm>
 - July 2020 Office of the Comptroller of the Currency (OCC) News Release: Federally Chartered Banks and Thrifts May Provide Custody Services For Crypto Assets - <https://www.occ.gov/news-issuances/news-releases/2020/nr-occ-2020-98.html>
 - August 2020 2019 FRB Speech: The Future of Retail Payments in the United States by Governor Lael Brainard - <https://www.federalreserve.gov/newsevents/speech/brainard20200806a.htm>
 - September 2020 OCC Interpretive Letter #1172 - 9/21/2020 OCC Chief Counsel's Interpretation on National Bank and Federal Savings Association Authority to Hold Stablecoin Reserves - <https://www.occ.gov/topics/charters-and-licensing/interpretations-and-actions/2020/int1172.pdf>
 - September SEC FinHub Staff Statement on OCC Interpretation - <https://www.sec.gov/news/public-statement/sec-finhub-statement-occ-interpretation>
18. Coindesk, "[The Dao Attack](#)" accessed on December 2020.
19. Deloitte, "[Corporates investing in Crypto](#)" accessed on January 2021.
20. The Wall Street Journal "<https://deloitte.wsj.com/cfo/2021/03/08/bitcoin-holdings-why-tax-and-accounting-matter/>" accessed on March 2021.
21. FATF, "[Outcomes FATF Virtual Plenary](#)" accessed on June 2020.
22. SEC, "[Digital Asset Security Definition](#)" accessed on February 2021 & "[Securities Exchange Act of 1934](#)" accessed on July 2017.
23. OCC press release and underlying Interpretive Letter 1170, <https://www.occ.gov/news-issuances/news-releases/2020/nr-occ-2020-98.html> and <https://www.occ.gov/topics/charters-and-licensing/interpretations-and-actions/2020/int1170.pdf> accessed on July 2020.
24. Smart contracts generally refer to small applications stored on a blockchain and executed in parallel by a large set of validators and DeFi uses smart contracts to create protocols that replicate existing financial services in a more open, interoperable, and transparent way.
25. OCC, "[OCC Asset Based Lending Framework](#)" accessed on January 2017.
26. Gary Gensler Testimony, "[Gensler's Testimony on Oversight of New Assets in the Digital Age](#)" accessed on July 2018.
27. Ibid.

Reference materials

A. FSI Blockchain Digital Ecosystem



So, You Want to Be a Crypto Bank?

B. Charters and Product Permissibility

■ Permissible Activity Non-Permissible Activity

	Saving Deposits	Checking Account	Loans	Payments	Cryptocurrency/Digital Assets	OTC Derivatives	Card Issuance	Custody of Assets
National Bank/ State Bank Charters								
National banks are chartered and supervised by OCC (primary) and FDIC (secondary) and are subject to federal but not state banking laws regarding their permitted “banking” activities. State Banking institutions are chartered and supervised by their home state regulator and FDIC or FRB (if a “member”) and generally have “parity” provisions that allow them to engage in any activity permitted for national banks. The holding company of both national banks and state banks must register with FRB as a BHC and be subject to consolidated supervision and regulation								
Money Transmitters								
Licensed by State Regulators State laws govern money transmitter activities by non-banks and their license requirements. FinCEN also acts as a federal regulator for all money transmitters								
ILC								
Approved and supervised by state regulator and FDIC These are FDIC-insured and supervised institutions which do not trigger the federal Bank Holding Company Act, so theoretically may be controlled by a commercial firm (activities beyond financial in nature/closely related to banking). ILCs cannot accept demand deposits if hold > \$100M in assets		<i>NOW and MMDA (savings) accounts permitted</i>			<i>Not typically custodians /fiduciaries</i>	<i>Not typically booked to ILCs</i>		<i>Not typically custodians /fiduciaries</i>
Branch (Foreign Branch) Federal or State Licenses								
Federal Branch is licensed and supervised by OCC and state Branch is licensed by host state and supervised by state and FRB. Cannot obtain FDIC insurance. Foreign banks’ presence in the US can be through a branch, representative office or agency. Licensing for US bank subsidiary of a foreign bank entity can be federal or state		<i>Not FDIC insured; subject to limitations</i>						
Finance/Other Entity								
Licensed by State Regulators State licenses required to engage in originating, servicing and collecting on lending activities. License depends on activity and regulations of state								
Special Purpose National Bank Charter for Fintechs ¹								
Chartered and supervised by OCC OCC regulations govern activities and corporate structure. Would enjoy national bank preemption. Not allowed to accept retail deposits. None approved to date; OCC chartering power in litigation								
National or State Chartered Trust Company								
Trusts Companies can be chartered and supervised by State Regulators or OCC National and state trust companies exercise only trust powers and do not accept FDIC-insured deposits. (See row 1-- FDIC-insured banks may also exercise custody and trust powers. This row is specific to limited purpose trust companies that do not have FDIC-insurance.)								

This license and product permissibility table provides a directional view of key underlying federal and state authorities. It is not intended to be a legal analysis.

- Guidance regarding national bank powers can be found at <https://www.occ.gov/publications-and-resources/publications/banker-education/files/pub-activities-permissible-for-nat-banks-fed-saving.pdf> and <https://occ.gov/news-issuances/news-releases/2020/nr-occ-2020-158.html>.
- Guidance regarding state-chartered banks, trust companies, licensed money service businesses and licensed lenders is not uniform and should be reviewed on a state-by-state basis. Entities should review their specific situations-- which may differ based on the product, client, and type of available legal entities (bank and non-bank)-- with counsel

1. Not approved as of now

Contacts

Rob Massey

Global Tax Leader - Blockchain and
Cryptocurrency
Deloitte Tax LLP
rmassey@deloitte.com

Tim Davis

Principal
Deloitte & Touche LLP
timdavis@deloitte.com

Richard Rosenthal

Senior Manager, New Bank Lead
Deloitte & Touche LLP
rirosenthal@deloitte.com

Irena-Gecas-McCarthy

FSI Director, Deloitte Center for
Regulatory Strategy, Americas
Deloitte & Touche LLP
igecasmccarthy@deloitte.com

Richard Walker

Principal
Deloitte Consulting LLP
richardwalker@deloitte.com

Richard Mumford

Contractor in Risk and Financial Advisory
Deloitte & Touche LLP
rmumford@deloitte.com

John Graetz

Principal
Deloitte & Touche LLP
jgraetz@deloitte.com

Gina Primeaux

Principal
Deloitte & Touche LLP
gprimeaux@deloitte.com

Jann Futterman

Manager
Deloitte & Touche LLP
jfutterman@deloitte.com

Nicholas Campbell

Manager
Deloitte Transactions and
Business Analytics LLP
nichcampbell@deloitte.com

Brian Adams

Manager
Deloitte & Touche LLP
briadams@deloitte.com

Richard Mumford

Manager
Deloitte Consulting LLP
jkiernan@deloitte.com

Prateek Saha

Senior Consultant
Deloitte & Touche LLP
prasaha@deloitte.com

Deloitte.

This document contains general information only, and Deloitte is not, by means of this document, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This document is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional advisor.

Deloitte shall not be responsible for any loss sustained by any person who relies on this document.

As used in this document, 'Deloitte' means Deloitte & Touche LLP, which provides audit, assurance, and risk and financial advisory services; Deloitte Consulting LLP, which provides strategy, operations, technology, systems, outsourcing and human capital consulting services; Deloitte Tax LLP, which provides tax compliance and advisory services; Deloitte Financial Advisory Services LLP, which provides forensic, dispute, and other consulting services, and its affiliate, Deloitte Transactions and Business Analytics LLP, which provides a wide range of advisory and analytics services. These entities are separate subsidiaries of Deloitte LLP. Please see www.deloitte.com/us/about for a detailed description of our legal structure. Certain services may not be available to attest clients under the rules and regulations of public accounting.