What is a bank?

Banks have been in existence since the dawn of humanity, as people had to transact somehow, exchanging the fruits of their labor for fungible assets of various kinds. Though they functioned differently from what we know as a bank, the present-day concept of a banking entity hasn't changed too much. In the broadest sense of this word, a bank handles:



Money deposits and withdrawals from individuals and commercial entities



Payments for utility services and commercial goods





Money transfers from one user to another





Payments for banking services

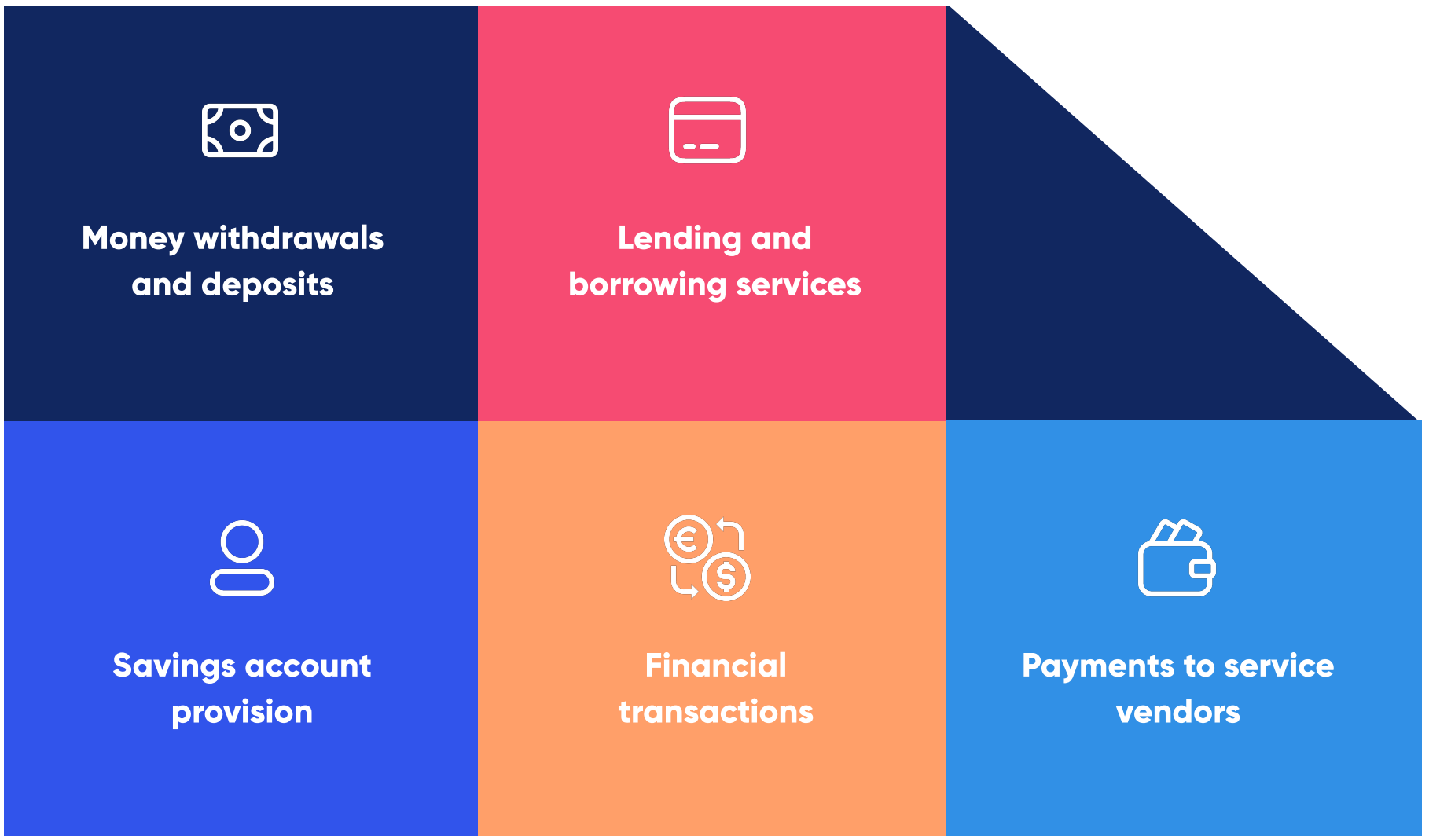


Borrowing and lending activities for various client categories



Crypto Banks

Let's start from the basics – by defining a crypto bank as a distinct type of financial institution. Crypto banks are banking organizations that conduct regular financial activities like:



The only difference between a crypto bank and a regular bank is that all these activities are performed with cryptocurrencies instead of fiat money.

Users can replenish their accounts with crypto assets stored on external wallets or exchange fiat funds for cryptocurrency at the moment of opening an account. This way, a crypto bank can also be characterized as a financial entity mixing a digital bank's functionality with crypto features.

Evolution of the Bank Concept

The modern global banking system has gone a long way from traditional financial institutions to crypto banks, with the major stages of that evolution involving:

Traditional banks

One of the major pillars of modern financial systems, traditional banks have been at the grassroots of capital management for centuries. They still have many local branches and offices to which people can come to open and close accounts, deposit and withdraw money, and send transfers. Due to offline presence, the possibility of getting face-to-face consultations, and a wide network of ATMs, such banks are still seen as the golden standard of banking and are favored by older generations due to their low level of technology adoption and high conservatism.

01



Digital banks

At the heart of digital banking was a desire to transform the delivery of financial services to make them more consumer-friendly and compliant with the latest technological changes. Digital banks emerged as fully online financial entities, giving users access to a wide variety of financial services from the comfort of their laptops and smartphones, thus offering a more personalized customer experience and greater control over spending and finances. These banking institutions quickly expanded via API integrations with third-party service providers to allow for more versatile digital bank use without security compromises.



Crypto banks

FinTech and DeFi emerged as a continuation of the digital banking trend; these new trends combined finance and technology, as the name suggests, to give users the best of the two worlds. This is how crypto banks formed to allow access to decentralized finance and ensure non-custodial, private operations for users worldwide. These financial institutions operate using cryptocurrencies, so they don't need central banks' oversight for legal operations.

Thus, as you can see, crypto banks represent a fundamentally new concept within the FinTech sector, offering a unique set of features and benefits to users, such as privacy, user-friendliness, and accessibility, coupled with state-of-the-art security.
With these parameters seen as the new normal in the financial sphere, traditional banks will inevitably need to adapt and transform digitally.



Crypto Banks and Crypto-Friendly Banks

You may often come across these two terms online, induced to think that a crypto and a crypto-friendly bank do the same things. However, these concepts are not identical, with these two types of banks approaching crypto transactions differently. Here's the core distinction:

Crypto-friendly banks

are fine working with crypto businesses and projects. Yet, they don't conduct crypto transactions directly and only provide supportive services, such as accounts for cryptocurrency exchanges, crypto payment processing, and crypto-backed loans in fiat money. This way, users can buy and sell cryptocurrencies using their usual banking cards, complete money exchanges with crypto platforms, and cash out their earnings after selling crypto assets.

Crypto banks

are an innovative type of financial entity that works directly with cryptocurrencies and don't require fiat currency for transactions. They can provide savings accounts for cryptocurrencies, crypto loans, trading services, and other related services for online transc with this type of asset.

This way, you may see that crypto-friendly banks are a sort of bridge between traditional finance and crypto, while crypto banks are built from scratch with exclusive specialization on crypto transactions. Therefore, crypto banks are technologically more advanced and handle a broader range of financial operations in the digital space.

Types of Crypto Banks

Blockchain technologies don't stand still; they develop at lightning speed today, moving the crypto industry forward. Thus, the novel crypto banking sector continues evolving and diversifying quickly in response to technological changes and innovations. Based on the in-depth analysis of the present-day digital banking sector, the 4IRE team has identified the following crypto bank categories – see Figure X.

Traditional banks with a crypto license

These banks allow users to sell and buy cryptocurrency from their banking accounts. They offer protection of clients' funds and employ proficient security measures.

Bank of America · JPMorgan Chase & Co. · Wells Fargo · Societe Generale · BBVA · Deutsche Bank

Crypto native banks

Full-service banking institutions that cover all cryptocurrency transactions, offer savings accounts, give and accept crypto loans, and process crypto transactions.

nebeus · SEBA BANK · xapo · kraken

Digital banks with crypto license

Digital banking entities that don't have physical offices and operate exclusively online. They have adapted to the digital transformation pressures by adding crypto transaction services to their financial service range.

venmo · BANK FRICK · ally

Types of Crypto Banks

FinTech/ Crypto/Digital asset platforms

FinTech platforms are a new step in the digital finance evolution. They use innovative technologies for cross-platform financial operations and transact freely with various digital assets, from fiat to crypto.

Cash App GEMINI ZIGLU MONOLITH™

FinTech superapps with crypto functionality

Most forward-looking digital banks have already transformed into FinTech superapps or are in the process of transition. Superapps are the key trend of the modern digital finance market, enabling lifestyle banking – a user-friendly, integrated financial ecosystem covering many extra services.

nexo nubank bitpay

With this evolutionary trend in digital banking, it won't be a surprise for anyone that cryptocurrencies are perceived as the future of finance. The privacy, technical superiority, transparency, and impressive security of transactions make crypto a promising tool in the global financial system. Besides, only crypto assets tune so harmoniously into the new lifestyle banking trend and offer cost-effective transactions and lucrative investment terms. Therefore, crypto integrations are so common in traditional and digital banks.

Digital Bank Business Models and Licensing

At present, users can come across the following digital bank business models, each with its unique features and service coverage:

Consumer of BaaS	Financial institutions, fintech companies, or any other organization can use BaaS to offer banking services to clients via API connectivity.
Plug and play banking	Ready-made banking software is provided on a subscription or one-time payment basis to provide a comprehensive business service package.
Traditional bank	Many regular banks transition to the digital space by adopting digital technology and expanding the service coverage for their clients.
Pure marketplace	Marketplace banking is an ecosystem of financial products and services with related characteristics that customers can select in one place.
Banking as a platform	BaaP presupposes the disclosure of traditional banks' infrastructure and functionality via an API connection to allow third-party businesses to build financial solutions on their base.
Banking as a service	Licensed businesses can become providers of BaaS solutions to other companies, monetizing their banking software and allowing access to it via API integrations.
Licensed digital bank	A non-bank commercial entity licensed to provide financial services via its digital channels.
Digital unit of an existing licensed bank	A department of a traditional licensed bank specifically tasked with digital transactions.
Partnership with a licensed bank	By partnering with a bank, FinTechs and crypto banks can be exempt from state usury, money transmission regulations, and other licensing requirements, assuming responsibility for the technical side of digital transactions.
FinTech license model	FinTech licenses are easier to obtain than those of traditional banks and have lower capital requirements. They are tailored to a specific range of services, such as P2P lending and transfers, payment processing, crowdfunding, and digital wallet creation. Here is a detailed overview of licensing and regulatory requirements by country, with a concise summary of legislative acts, documentation, and regulatory authorities for crypto banking businesses.

Banks

SuperApps

Cypto Native Bank

pectroCoi
SEBA BANK
SYGNUM
xapo
nebeus
BVNK
kraken
Aximetria
mercuryo
First Westroads Bank
Custodia
METACO

MINEPLEX
bitpay

Digital Banks with Crypto License

monzo
current
bank prov.
USAA
venmo
LHV
ally
solarisBank
BANK FRICK
fidor BANK
Julius Bär
XACE IBAN Accounts for Gaming

N26
SoFi
nubank
Revolut

Banks

SuperApps

FinTech, Crypto / Digital Asset Platforms with Banking Services

Cash App
LYOPAY App
Change
GEMINI
JUNO
CHOICE Financial Group
ZIGLU
monolith.
nash
Simple
Clear.Bank
wirex
BCB GROUP

BINANCE
coinbase
crypto.com
Blockchain.com
CoinPayments
nexo

Traditional Banks with Crypto License

JPMorgan Chase & Co.
WELLS FARGO
SOCIETE GENERALE
Goldman Sachs
BNY MELLON
Morgan Stanley
National Bank of Commerce Member FDIC
Bank of America
BBVA
Deutsche Bank
citibank
ING

As you can see from this table, dozens of crypto banks have established a solid reputation in the digital space, and many more are entering the sector every day to offer flexible and lucrative investment, wealth management, and transaction services to users. Such projects enjoy stably high attention on the part of investors and successfully attract funding, signaling the large-scale change in the global financial landscape toward crypto-friendliness.

Crypto Banking Trends and Predictions

Since the crypto banking trend is only starting to take shape, many users and potential investors are interested in its prospects for the near future. What does the future have in store for crypto banks? Overall, the prospects of this banking sector are closely tied to the rise and integration of cryptocurrencies in all spheres of financial transactions. As more individuals and businesses start using cryptocurrencies in their daily operations, demand for crypto banking is doomed to rise.

However, a vital aspect that may affect the dynamics of crypto banking development is regulation. As the regulatory framework for cryptocurrencies evolves, crypto-friendly and crypto-only banks can encounter pressure on the part of regulatory bodies, needing to adjust their operations to new laws to ensure compliance and legal functioning.

Besides, competition in the crypto industry is expected to rise as traditional banks also start offering crypto-related services. This trend can lead to industry consolidation, with small crypto banks being acquired by, and merging into, larger financial institutions with a more stable position in the market.

Despite the mentioned potential issues, crypto banks have positive long-term perspectives for development and expansion. As cryptocurrencies are growing more popular and appealing to users, demand for specialized banking services compliant with the unique crypto market needs will also grow exponentially. An additional source of possibilities for crypto banks is the fast technological progress in the blockchain sector, the development of new cryptocurrencies, and the DeFi industry expansion. These dynamics can allow crypto banks to deliver unique business value, stand out from the crowd of competitors, and offer innovative services to clients.

Overall, the future of crypto banking largely depends on the rise and development of the broader cryptocurrency industry and will be mostly determined by technological advancements, regulatory changes, and fast-moving market dynamics.
Here is a detailed breakdown of trends and predictions for the crypto banking sector from various perspectives.

Cryptocurrencies and blockchain are digital technology first of all. Thus, the development of tech advancements and innovation in this sphere will determine the pace and direction of crypto banking in the coming years. We've identified the following trends in the technological domain.

1. Blockchain and distributed ledger

The distributed ledger technology (DLT) and blockchain were initially received skeptically in the banking industry, with JP Morgan Chase's CEO Jamie Dimon saying that assets moving 20%+ overnight can't be regarded as a currency. However, things have changed since 2017, and though crypto assets still move 20%+ overnight, they are increasingly accepted as an alternative currency by millions of users. Therefore, DLT is doomed to revolutionize the banking sector, as it offers ultimate privacy, access to capital for unbanked populations, and decentralization.

2. Smart contracts

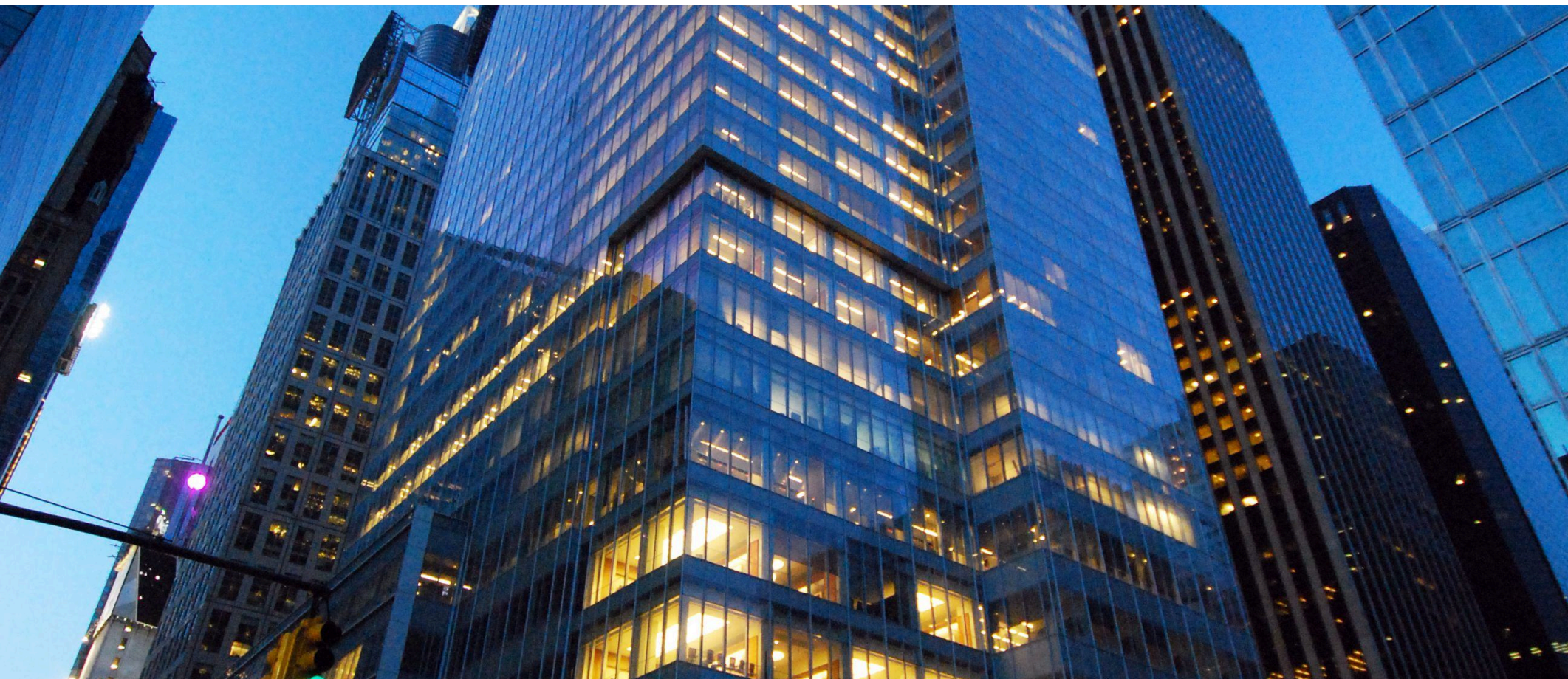
The automated, self-executing contracts are the fuel of blockchain and crypto banking. They are the basis of the decentralization principle in the DLT, allowing users to have their transactions executed after the counterparty's fulfillment of contractual obligations. This way, the function that used to be performed by an intermediary (a bank or credit organization), which charged a considerable fee for the go-between service, can be skipped altogether.

3. Artificial intelligence and machine learning

AI and ML use has become commonplace in banking because this technology helps banking institutions process big data and employ smart predictive models for credit risk assessment. This way, advanced AI/ML algorithms help users and businesses evaluate the dynamic changes in market sentiment, suggest favorable investment opportunities, and inform decision-making with real-time analytical insights.

4. IoT

Modern users are tech-savvy, using a variety of interconnected devices to simplify their daily routines and transactions. The 21st century has become the era of contactless wearables – devices that form a part of the IoT system and allow users to make payments, track their performance, and stay connected. These wearables come in the form of watches, bracelets, and rings, making a transaction just a matter of one move. FinTech companies can also embrace this trend by offering crypto payment integrations to IoT devices' software.



Regulatory Trends and Legislation

Regulation is at the heart of any banking institution's operations. No bank, be it a crypto-only institution or a traditional financial entity, can operate legally in any jurisdiction without ensuring regulatory compliance. The reason for such tight control is that such businesses operate with user data and money, which requires sufficient protection and intactness guarantees on the part of the government. Therefore, crypto banks and other DeFi entities are currently facing much regulatory pressure because of the lack of clarity on their business status and the legal status of crypto assets. Here are the main trends that will affect the course of crypto banking development in the coming years.

ICO and cryptocurrency regulation

Initial Coin Offerings (ICOs) have become a disruptive phenomenon of the crypto industry, with anyone receiving an opportunity to launch their own currency for circulation. It was a time of grand successes and scams, and the rising number of fraudulent ICOs launched to raise fast cash urged the governments to adopt a tighter legal framework for ICO regulation. In the USA, ICOs fall under the jurisdiction of the SEC, which subjects any ICO application to the Howey Test. ICOs in Singapore are regulated under the Monetary Authority of Singapore (MAS), which has issued a detailed Guide to Token Offerings. Every country develops its own ICO regulations depending on how it classifies crypto tokens – as securities or commodities – and assigns a responsible regulatory body to control the sphere. Yet, no comprehensive international framework is yet in existence for global ICO regulation or control.

KYC and AML

The anti-money laundering (AML) and counter-terrorist financing (CTF) regulations are currently in place in most jurisdictions where cryptocurrencies are generally legal for circulation. Since crypto assets are moved in the digital space without centralized oversight, they can become powerful tools for the financing of terrorist and criminal activities, which requires tighter control over user identity verification with KYC standards and the development of an international AML framework for digital assets.

Digital asset and blockchain laws

Though many states have already progressed in digital asset regulation, there is no uniform regulatory framework anywhere in the world. Some countries have found ways to tax crypto-derived revenue, and each state has a unique set of regulations and restrictions on crypto payments, investments, and derivatives. Many of them follow the prudential standards of the Basel Committee on Banking Supervision (BCBS) for crypto assets published in December 2022. It's also possible to derive valuable regulatory advice from the Financial Action Task Force's (FATF) 2021 guidance for a risk-based approach to virtual assets and virtual asset providers and the Crypto Asset Roadmap for 2022-2023 developed by IOSCO's Fintech Task Force.

Despite the regulatory ambiguity surrounding crypto assets today, they are increasingly seen and used as financial instruments. Stablecoins with pegging to USD, like USDT, are more often used for financial transactions because of their low volatility and higher predictability. However, other cryptocurrencies are also paving their way to financial systems, like infrastructural tokens of large exchanges (e.g., BNB) or algorithmic stablecoins. Thus, the financial trends for crypto banking are expected to be as follows.

A growing number of digital assets and cryptocurrencies

Since the crypto industry is a decentralized space with loose regulation, actually anyone can create and launch their digital token or cryptocurrency. That's why the variety of crypto assets available for investment, trading, and use is growing every day, with every self-respecting blockchain project having a native token for internal use. This trend will continue as every Web3 app, platform, or game seeks to monetize its ideas and attract a loyal audience to infrastructural token use and investment. The users' major challenge is to assess the offered assets and acquire only those with a solid project standing and healthy market potential.



Digital Assets

Region	Country	Regulator	Name for Crypto	Banking / Payments Regulations	Crypto Regulations
Europe	France	MiCA (law for 27 EU members)	Crypto Assets	French Banking Law (Code Monétaire et Financier)	Digital Asset Service Providers (DASPs) License
					Digital Asset Service Providers (DASPs) License
	Germany		Virtual Currencies / Virtual Assets	German Banking Act (Kreditwesengesetz - KWG)	BaFin regulation for crypto custody services
	Estonia		Virtual Currency	Estonian Financial Supervision Authority (Finantsinspektsioon)	Virtual Currency Service Provider (VCSP) license
	Liechtenstein		Virtual Currencies / Virtual Tokens	Financial Market Authority Liechtenstein (FMA)	Token and Trustee Service Provider (TTSP) Act
	Malta		Virtual Financial Assets (VFAs)	Malta Financial Services Authority (MFSA)	Virtual Financial Assets Act (VFAA)
Switzerland		Swiss Financial Market Supervisory Authority (FINMA)	Crypto Assets	Swiss Banking Act (Bankengesetz)	FINMA license for crypto businesses
UK		Financial Conduct Authority (FCA) regulations	Crypto Assets	Financial Services and Markets Act (FSMA)	Temporary Registration Regime (TRR) for crypto businesses
		U.K.'s Financial Services and Markets Bill (FSMB)			

Region	Country	Regulator	Name for Crypto	Banking / Payments Regulations	Crypto Regulations
Asia	Japan	Financial Services Agency (FSA)	Virtual Currencies	"Japan's Payment Services Act"	Virtual Currency Exchange license
	Singapore	Monetary Authority of Singapore (MAS)	Digital Payment Tokens (DPTs)	Payment Services Act	Payment Services license for digital payment token services
	China	People's Bank of China (PBOC)	Virtual Commidities	China Banking and Insurance Regulatory Commission (CBIRC)	No specific nationwide crypto regulation, various local regulations apply
	Hong Kong	Securities and Futures Commission (SFC)	Virtual Assets	Banking Ordinance	"Securities and Futures Ordinance" (SFO)
	South Korea	Financial Services Commission (FSC)	Virtual Assets	Banking Act	"Crypto Asset Act"
North America	US	Securities and Exchange Commission (SEC)	Virtual Assets / Digital Assets	Federal Deposit Insurance Act (FDIA)	No specific nationwide crypto regulation, various state-level regulations apply
		Commodity Futures Trading Commission (CFTC)		Office of the Comptroller of the Currency (OCC)	
	Canada	Canadian Securities Administrators	Virtual Currencies / Cryptocurrencies	Bank Act	Regulation varies by province but generally falls under securities laws or money services business regulations
		Financial Transactions and Reports Analysis Centre of Canada (FINTRAC)		Office of the Superintendent of Financial Institutions (OSFI)	

Region	Country	Regulator	Name for Crypto	Banking / Payments Regulations	Crypto Regulations
North America	Mexico	Banco de México (Bank of Mexico)	Virtual Assets	National Banking and Securities Commission (CNBV) regulations	—
		Ley para Regular las Instituciones de Tecnología Financiera (Ley Fintech)		General Law of Credit Institutions (Ley de Instituciones de Crédito)	
Central & South America	Brazil	Securities and Exchange Commission of Brazil	Crypto Assets	Brazilian Banking Law (Lei 4595/1964)	—
	The Bahamas	The Central Bank of The Bahamas	Digital Assets	Banks and Trust Companies Regulation Act	—
	Bermuda	Bermuda Monetary Authority (BMA)	Digital Assets	Banks and Deposit Companies Act	—
	El Salvador	(Superintendency of the Financial System)	Virtual Assets	Banking Law	The Bitcoin Law (Ley Bitcoin)
Australia		Australian Securities and Investments Commission (ASIC)	Digital Currencies	Banking Act 1959	Anti-Money Laundering and Counter-Terrorism Financing Act 2006 (AML/CTF Act)
Middle East	UAE	UAE Securities and Commodities Authority (SCA)	Virtual Assets / Virtual Currencies	Central Bank of the UAE	Regulations on initial coin offerings (ICOs) and virtual assets

Region	Country	Regulator	Name for Crypto	Banking / Payments Regulations	Crypto Regulations
Middle East	Turkey	Banking Regulation and Supervision Agency (BRSA) Capital Markets Board of Turkey (CMBT)	Crypto-currencies	Banking Regulation and Supervision Agency (BRSA)	—
	Israel	Israel Securities Authority (ISA)	Virtual Assets / Digital Currencies	Banking (Licensing) Law	—

Crypto Banking Landscape

The 4IRE team has conducted exhaustive research on the market landscape for crypto banking and has identified key players in the respective niches of this sector. Obviously, the number of crypto banks is much larger, but we've focused on the most notable representatives, their business models, and methods of work.

The table below presents our findings on the FinTech, crypto, and digital asset platforms with banking services, licensed crypto-friendly banks with an international presence, and crypto-native digital banks offering broad service coverage and support for crypto-related transactions. You can also find a list of traditional banks with over a century of history, which have followed the lead of digital transformation and have integrated crypto-friendly functionality.

Crypto service integration in the traditional financial instruments

As cryptocurrencies are getting more popular and enjoying massive adoption worldwide, their use expands as well. Users need more service providers loyal to crypto payments, which determines the rise of crypto-supportive service integration in regular finance. Users of digital wallets and banking accounts receive innovative opportunities for paying in crypto; you can pay for movie tickets at AMC or cover your online bills at AT&T with cryptocurrencies today. Even Microsoft already accepts crypto money for the company's digital products, and PayPal is about to launch its own stablecoin. Thus, the pace of crypto service integration is moving fast, helping traditional businesses win new audiences and retain the old ones with cryptocurrency integrations.

Stablecoins' rising popularity

Stablecoins are the island of stability in the turbulent crypto market. They are usually pegged to an international fiat currency (e.g., Tether – a USD-pegged stablecoin) or have a mathematically stable formula (e.g., DeFi Dollar - DUSD). They are less volatile than other crypto assets, so investing in them and holding them for a while in one's wallet is a good idea with low risks. Therefore, the market of stablecoins is bound to rise as the demand for cryptocurrency transactions follows an upward trend.

Security and Confidentiality Trends

Since blockchain and crypto banking are online-only industries with little to no regulatory oversight, crypto projects' viability depends largely on their ability to ensure end-to-end security for users and their funds. These concerns relate to user data, integrity and confidentiality of transactions, and intactness of crypto assets processed at the baking institutions. Here are a couple of trends you should consider.

Crypto-related privacy and anonymity

As we live in the times of surveillance economy, people are increasingly giving value to online service platforms that don't collect or aggregate user data and can effectively preserve user privacy. However, the privacy and anonymity of cryptocurrencies based on the principle of pseudonymity in wallet creation has a reverse side in case of massive crypto payment adoption. As blockchain records all transactions openly in the public ledger, and all wallet information is publicly available, all your transactions and assets will be disclosed to any party to which you disclose your wallet ID. For instance, paying for a cup of coffee at a local coffee shop will show all your transactions and assets to the barista, and using crypto wallets for salary payouts lets any colleague learn where you spent your money yesterday. Thus, crypto wallets are yet to achieve the balance between traceability and transparency on the one hand and privacy and confidentiality on the other hand to give users a healthy combination of anonymity and compliance.

Safe crypto asset storage

Cryptocurrencies are still rocket science for many users, and the technical nuances of the crypto asset movement often become a loophole for hackers and scams. People accidentally reveal their private keys or transfer money to phishing websites; their money is stolen from compromised wallets and exploited Web3 platforms. Therefore, the issue of safe cryptocurrency storage is still pressing. The safest method is to use a cold storage wallet, which is a piece of hardware disconnected from the Web, keeping the money offline. However, the enterprise-level security issue that crypto banks face can't be resolved with a cold wallet. These entities need to figure out advanced security solutions in compliance with the latest Cryptocurrency Security Standards (CCSS) for managing and storing their clients' crypto assets safely and withstand crypto hacker attacks and exploits.

Cybersecurity and protection from hacks

There are a wide variety of crypto scams online today, preying on user money and data and causing large-scale breaches and thefts. Users may become victims of fake exchanges, ICO scams, fake wallets, pumps and dumps, website clones, and many forms of hacker attacks. One way blockchain responds to emerging cyber risks is the advent of permissioned blockchains, advanced encryption technologies, and comprehensive transaction tracking via the public ledger.

Mass Adoption and Awareness Trends

The times when cryptocurrencies were a fancy term only a few tech geeks could embrace are long gone. Bitcoin, Ethereum, and dozens of other world-famous cryptocurrencies have become mainstream for investors, traders, and laypeople a couple of years ago, and their adoption and user awareness are expected to grow further. What does this trend have in store for crypto banks?

Rising cryptocurrency and blockchain awareness

As the DeFi sector grows and goes mainstream, more and more laypersons not connected with digital technology get a firm grasp of cryptocurrencies. Cryptocurrencies represent an attractive tool for transactions and investments, but awareness of their mechanics, trust in blockchain technology, and its adoption are still at the germinal stage in most countries. The crypto banking sector is expected to expand in the coming years mainly due to the rising consumer awareness and trust for crypto assets, which will move this industry further and attract a loyal following.

An increasing number of crypto banking users and investors

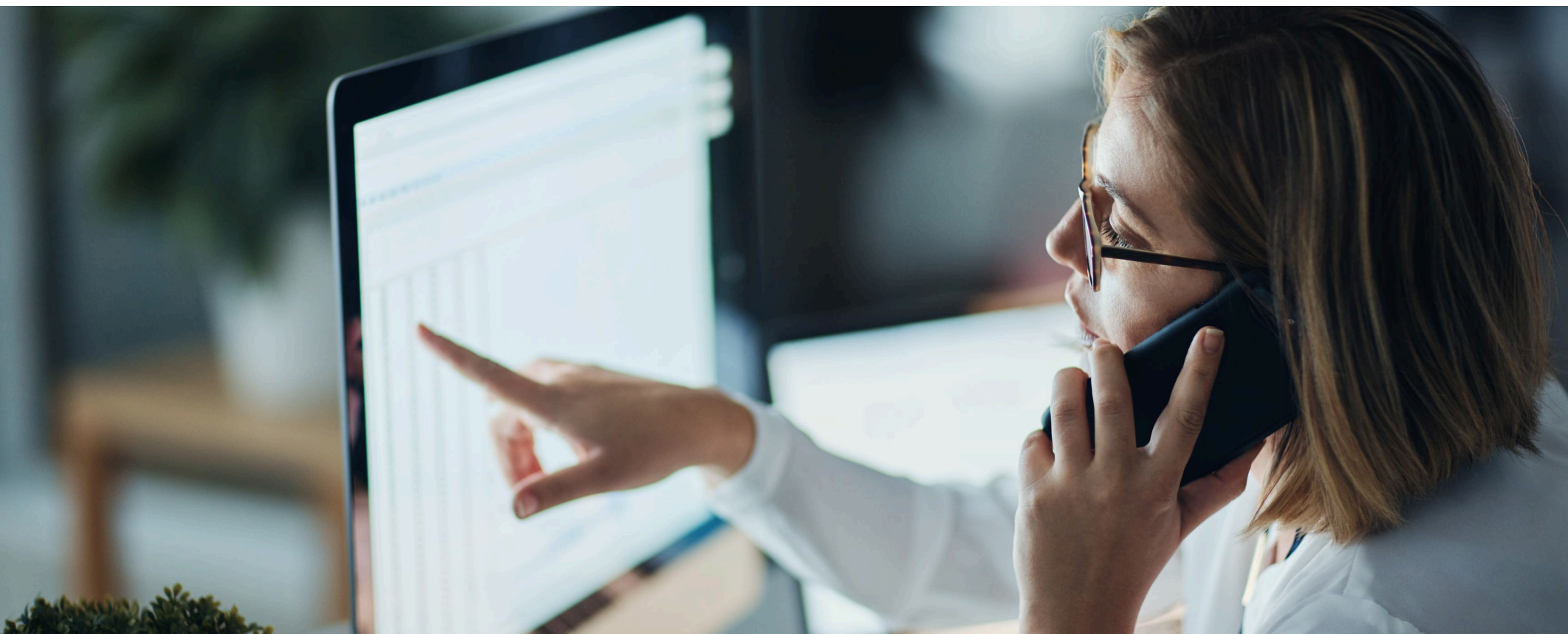
As cryptocurrencies are becoming more widely used and popular, they attract the attention of institutional investors and entities. For instance, by the middle of 2021, 55% of the top 100 banks invested in blockchain-based startups, with Morgan Stanley giving $1.1 billion to crypto companies, Goldman Sachs allocating $698 million to such projects, and BNY Mellon assigning $690 million to this investment category. Users of crypto banking services and cryptocurrency owners are also rising in number, with over 4.2% of the global population owning crypto assets worldwide as of 2023; the figure is over 420 million this year, compared to only 106 million at the beginning of 2021.

Mass Adoption and Awareness Trends

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Broader access to crypto services

According to the 2022 report of the World Bank, 1.4 billion adults across the world remain unbanked, which is around one-fourth of the global population. These people have no bank accounts and are invisible to the financial system, being deprived of the opportunity to take loans, pay for tuition, or get a mortgage for real estate property. Cryptocurrencies are changing this situation by simplifying access to finance for unbanked and underbanked people, with the fastest adoption dynamics observed in African countries, Latin America, and the Asia Pacific. This way, people who have limited opportunities for traditional banking service coverage get access to crypto services and crypto finance for cross-border transactions, loans, and investments.



Institutional Adoption and Regulation of DeFi

The institutional adoption of DeFi is a massive reconstruction of the global financial system on the principles of added security, transparency, and interoperability. With the dramatic gap between US 10-year treasury yields of under 1% and stablecoins' annual gains between 2% and 12%, one shouldn't be surprised to see that 80% of financial institutions across the USA and Europe have interest in digital assets and crypto investments.

There are a number of institutional pioneers who have already reaped the gains from crypto investments:

Morgan Stanley

has recently expanded its service coverage to digital asset acquisition.

BNY MELLON

confirmed the **support and custody of digital assets** and the launch of several tokenization projects.

JPMorgan Chase & Co.

got directly engaged in the digital token and blockchain-powered platform design to allow instant payments for their clients.

HSBC

shared its plans to **invest $20 billion** in the development of a blockchain-powered custody platform.

CARLICAHN.COM

a widely known hedge fund manager, announced a $1 billion investment in crypto.

Along with these transitional steps among financial entities, one can witness a large-scale move toward cryptocurrency adoption at the governmental level. Today, 24 state governments, including the UK, Canada, and the USA, are actively working on the launch of CBDCs, and 13 more governments are initiating such projects today.

However, DeFi integration in financial institutions is impossible without regulation. Therefore, the key safeguards responsible for the financial system's stability and safety should be introduced in the DeFi ecosystem as well to ensure its adoption at the institutional level. The key aspects of regulatory control and protection include:

- AML/KYC procedures for risk control
- Data privacy safeguards
- Cybersecurity measures
- Comprehensive governance and conduct standards for crypto banks
- Proper recourse tools
- Legal framework for smart contract-based business operations

Emergence of New CBDCs

Digital transformation of the banking industry is in full swing, and the transition to cashless economies is unavoidable. One of the signs of irreversible digitalization is that more than half of the world's central banks are developing digital currencies – CBDCs. These are the digital versions of national currencies regulated by central banks, aimed at promoting financial inclusion for unbanked and underbanked populations.

Over 100 CBDCs were in development as of July 2022, with financial experts arguing for their adoption due to the many benefits they are expected to bring to the national banking system:

- Greater resilience for domestic payment systems
- More competition among finance providers
- Better access to money among all population categories
- Greater payment efficiency
- Lower transaction fees
- Transparent, digitally traceable money flows

Technically, a CBDC is a form of stablecoin pegged to a specific national currency's exchange rate. Thus, CBDC transfers, trading, and investment will be analogous to operations with cryptocurrencies, with the only exception being the government's guarantee of exchange rate stability and security.

Active interest in CBDC is a reflection of modern financial system users' interest in digital finance and cryptocurrencies. Thus, CBDCs offer governments a tangible opportunity to partake in the global shift towards digital finance by offering digital analogs of national currencies.

Yet, launching a CBDC also comes with technical risks and challenges, and national banks should have resilient and properly secured infrastructures to protect CBDCs against hacker attacks, fraud, and exploits. There should be comprehensive mechanisms for data privacy protection and financial integrity; otherwise, CBDC ownership and transactions may become vulnerable to the same threats regular cryptocurrencies experience in the digital space.

Tighter Regulation of Crypto Exchanges

As cryptocurrencies and crypto banking progress, the world's governments are trying to keep pace with those developments to ensure proper rule enforcement and regulation. A recent fall of FTX and massive losses of user money due to that collapse caused even greater scrutiny of crypto exchanges on the part of the governments. Lessons learned from FTX's downfall include:

- Need for better retail investor protection.
- Regulations for cryptocurrency advertisements.
- Better legal delineation of centralized and decentralized exchanges' principles of operations.
- Jurisdictional guarantees to investors.

Many governments are making regulatory moves in response to the emerging risks in the crypto sector. For instance, the EU has recently developed the Pilot DLT Market Infrastructure Regulation (PDMIR), put into force in March 2023, which oversees private sector businesses engaged in trading and settlement of crypto assets. All crypto exchanges are also bound to comply with the pan-EU AML Authority's regulations for KYC and AML procedures of user authorization. The USA has also introduced a broad regulatory network involving the Financial Crimes Enforcement Network (FinCEN), the Financial Stability Oversight Council (FSOC), the Commodity Futures Trading Commission (CFTC), and other related agencies overseeing financial and commodity transactions across the USA. Many other states followed the lead and have developed, or are currently developing, some form of regulatory framework for digital asset circulation.

However, with all regulatory moves taken across the world, there is still much to be done for proper financial security protection, money movement regulation, and oversight of digital currencies at the local and international levels. The forthcoming legislative changes are interagency guidance on liquidity risk management, interagency regulations on finder activities, stablecoin legislation, regulations covering crypto asset promotion, systemic stablecoins, and systemic wallets. There is also pending legislation on crypto asset secondary service provider (CASSP) status and tax treatment for digital assets. Thus, the crypto banking industry should expect many more regulatory requirements to surface in the coming years as the world gradually moves to digital finance.

Development of Local and Cross-Border Regulation for Crypto

The greatest loophole of present-day crypto legislation and regulation is the fragmented nature of state efforts on the way to gaining better control and oversight over cryptocurrencies. According to the fact sheet of the US Department of Treasury published in July 2022, global cooperation of digital assets is vital in the industry; yet, there has been little progress toward a genuinely global framework for cryptocurrency oversight and management

Roree Sarel et al. from the Oxford Business Law group suggest the following solution for this situation:

- Appointment of a centralized global regulator responsible for all aspects of the global crypto market.
- Supplementing the centralized regulator's oversight with decentralized regulation involving many different countries.
- Setting international standards similar to the Basel Accords standardizing bank-risk regulation for all countries to harmonize the countries' approaches to crypto industry regulation.

The IMF experts also support these suggestions and point out that the global regulatory framework for crypto assets should include authorized and licensed crypto service providers delivering critical functions, and each sphere of crypto asset use should follow a set of standards similar to those regulating the traditional banking sector. The IMF has also developed a strategy for crypto industry regulation at the international level to ensure a consistent and proactive global response to the changes in the financial ecosystem.