

# 2022 EMERGING TECHNOLOGY TRENDS

MARKET AND LEGAL INSIGHTS FOR INNOVATORS



# FINTECH & BLOCKCHAIN TECHNOLOGY

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# FINTECH & BLOCKCHAIN TECHNOLOGY



We anticipate that the next stage in fintech will be driven significantly by the incorporation of blockchain technology and the products, services, and experiences it enables.

## SECTOR OVERVIEW

### What Is Fintech and Blockchain Technology?

“Fintech” refers generally to the financial services industry’s emerging use of innovative technologies to enhance financial services. Fintech encompasses a range of different technologies and subsectors of the financial services industry, including blockchain technology.

“Blockchain technology” is most simply defined as the technology that supports the creation of decentralized, distributed, digital ledgers that make the records of any digital asset transparent and unchangeable. The term “blockchain technology” is now widely used in connection with an entirely new suite of applications and products enabled by the underlying technology, including bitcoin and other cryptocurrencies, non-fungible tokens (NFTs), metaverses, and a blockchain-enabled evolution of the internet known as “Web3.”

### Associated Sectors

- Payments/Money Transfer
- Blockchain, Digital Assets, and Custody
- Fintech Compliance and Enforcement
- Fintech Corporate, Financing, and Mergers and Acquisitions
- Next-Gen Consumer Finance and Banking

### Why Are Fintech and Blockchain Important?

In the 2010s, advances in smartphones, mobile apps, cloud computing, and application programming interfaces (APIs) helped drive a digital transformation in financial services that led to widespread adoption of mobile banking, payments innovations, “banking-as-a-service” partnerships, and other then-new and novel products that delivered a seamless and convenient experience. We anticipate that the next stage in fintech will be driven significantly by the incorporation of blockchain technology and the products, services, and experiences it enables.

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# ENABLING SCIENCE AND TECHNOLOGY

Fintech, by definition, straddles the cutting edge of technology, and the landscape for blockchain technology is continuously changing. Blockchain implementations are often designed with a specific purpose or function that advances the state of the art, and in turn advances the state of technology for the financial services industry.

### Smart Contracts

A smart contract is a software protocol that can self-execute, self-enforce, self-verify, and self-constrain the performance of its instructions, such as instructions to buy, sell, or transfer digital assets. Smart contracts running on blockchain platforms are the core building block of the new wave of decentralized applications, particularly for financial services transactions.



Many of the most popular recent uses of smart contracts involve issuing tokens that adhere to an Ethereum-based standard known as ERC-20. Tokens designed in accordance with the ERC-20 token standard are compatible with an Ethereum wallet and can readily implement other Ethereum token smart contracts. In practice, this means that a smart contract implemented with the ERC-20 standard can enable the creation of a digital token in the Ethereum ecosystem that represents any *fungible* good, such as coins, gold certificates, loyalty points, IOUs, or in-app credits.

### Non-Fungible Tokens

In contrast to cryptocurrencies, which are designed to be fungible (every token is the same as every other token), the pairing of smart contracts and Ethereum-based standards, such as ERC-721, allow for the creation of “non-fungible” (i.e., unique) tokens—NFTs. NFTs are a foundational building block in a new and thriving ecosystem of digital content, games, and applications that use NFTs to represent ownership or other rights to digital content, such as digital art, digital collectibles, virtual real estate, and ticketing. NFTs have also been used to signal membership in organizations and to verify identity, among other uses.

### Decentralized Finance and Decentralized Applications

Decentralized finance (DeFi) is the collective term for the ecosystem of financial products and services enabled by decentralized and distributed technology. DeFi revolves around decentralized applications (dapps), which are similar to traditional software applications like websites and apps on phones but are built on a decentralized blockchain network (often Ethereum).

In the present and near future, dapps hold promise to offer alternatives to traditional financial instruments without the involvement of central financial intermediaries such as a bank, a brokerage, or an exchange. Decentralized exchanges (DEXs), for example, enable peer-to-peer trading in digital assets without the involvement of a centralized exchange acting as a financial intermediary between the buyer and seller. This peer-to-peer disintermediated exchange is made possible by self-executing smart contracts. However, in the longer term, dapps are viewed by some as the foundation of the future evolution of the internet, known as Web3.

Generally, DeFi platforms are subject to the same regulatory regimes and classifications as centralized digital asset trading platforms. The decentralized nature of these platforms can create regulatory compliance challenges, particularly where coordinated action among platform participants is integral to

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### ENABLING SCIENCE AND TECHNOLOGY (CONT'D)

compliance. As DeFi platforms continue to grow in popularity, especially among retail users, they may come under greater regulatory scrutiny. For example, in November 2021, U.S. Securities and Exchange Commission (SEC) Chair Gary Gensler warned that the SEC will look beyond the label of DeFi and consider the “economic realities” of a given DeFi platform.

#### Stablecoins

Stablecoins are a type of digital asset generally designed to maintain a stable value by linking its value to a national currency or other reference assets. At present, the majority

of the stablecoin market in the United States supports the purchase and sale of other cryptocurrencies, but in the future may also be widely used by households and businesses as a means of payment. The debate over a better means of payment, built on blockchain technology, has spurred a policy debate over the future of money.

THE DEBATE OVER A BETTER MEANS OF PAYMENT, BUILT ON  
BLOCKCHAIN TECHNOLOGY, HAS SPURRED A POLICY DEBATE  
OVER THE FUTURE OF MONEY.



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# SECTOR AND INDUSTRY SIGNALS

### Bitcoin and Cryptocurrencies

Bitcoin, mainly traded among small investors and early adopters for most of the 2010s, has experienced rapid adoption in institutional and other mainstream settings over the past few years. In February 2021, electric vehicle maker Tesla announced that it would accept payment in bitcoin (a policy later reversed). In June, the president of El Salvador announced a plan to adopt bitcoin as a legal tender. In October 2021, the first U.S. bitcoin futures exchange-traded fund was launched. At the beginning of November, bitcoin reached an all-time high of nearly \$70,000. Ether, the second-biggest cryptocurrency, notched its own new all-time high late in 2021 as well.

### NFTs

NFTs exploded in popularity through 2021. Household name brands like Nike joined the movement with sneakers and streetwear bundled with NFTs. By the end of 2021, the marketplace for NFTs reached a \$41 billion value, according to blockchain data company Chainalysis, closing in on an approximately \$50 billion size of the market for conventional art and antiques.

The size of the NFT market is attributable to both increasing NFT volume and market-leading, high-value sales. In 2021, NFT artist Beeple's *The First 5,000 Days* fetched \$69.3 million at auction from a single buyer. In December 2021, the most expensive NFT sale to date took place when a fractionalized NFT artwork piece called *The Merge* was sold, and 312,686 pieces of the artwork were shared among 28,983 different buyers for a collective price of \$91.8 million. NFTs continue to expand in new ways, and in April 2022, Coinbase announced that it will produce a three-part movie series featuring the Bored Ape Yacht Club, the most valuable NFT collection to date.

NFTs vary widely in form and function, and, depending on the manner in which they are marketed, created, traded, or otherwise exchanged, NFTs and/or NFT marketplaces may be subject to regulation by the SEC, Commodity Futures Trading Commission (CFTC), or other regulatory agencies.

### Metaverse

"Metaverse" generally refers to the concept of highly immersive virtual worlds where people gather to socialize, play, and work.

The emerging concept of metaverses overlaps with NFTs and other trends. Metaverses will allow collectors to display NFTs like an art piece, and plans are in development to have NFTs represent assets such as clothes, property, and more, which users can interact with accordingly. As demonstrated by Microsoft's Mesh platform for "mixed reality" apps, the metaverse can also serve as a place for enhanced productivity and collaboration.

In October 2021, Facebook announced that it would change its company name to Meta. The new name, based on the sci-fi term "metaverse," describes the company's vision for working and playing in a virtual world. In a letter published at the same time as the announcement of the name change, CEO Mark Zuckerberg articulated the company's hope that "within the next decade, the metaverse will reach a billion people, host hundreds of billions of dollars of digital commerce, and support jobs for millions of creators and developers."

### Payments, Consumer Lending, and Buy Now, Pay Later (BNPL)

Even with much of the fintech focus on blockchain-related products and services, more "traditional" fintech is still developing. Buy now, pay later (BNPL) platforms led the charge in 2021 for consumers and mergers and acquisitions (M&A) alike. BNPL is a type of short-term financing, often at the point of sale, that allows consumers to make purchases and pay for them at a future date, often interest free. Payments are often made in four fixed payments made biweekly or monthly until the balance is paid in full. Fintech firms have dominated the BNPL market, with significant dealmaking activity led by Block's (formerly Square's) acquisition of BNPL firm Afterpay. The fintech-focused M&A trend may continue in the coming years as the fintech startups and challengers of the past decade reach the scale to acquire smaller firms at the forefront of new markets.

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# IMPACT

### Economic

Fintech and blockchain technology hold enormous potential to reshape the financial services industry. Within a one-year span from November 2020 to November 2021, the cryptocurrency market capitalization grew fivefold, from \$578 billion to \$3 trillion—for context, the total market capitalization was approximately \$19 billion in January 2017. Recent polls show that one in every five American adults has invested in, traded, or used cryptocurrency. It is no surprise, then, that the sector is leading the way for investment. Financial services was the leading sector for venture investment in 2021 with \$134 billion invested, marking a 177% percent year-over-year growth.

### Marketing

Over the past year, cryptocurrency continued its rapid expansion into mainstream marketing channels. Cryptocurrency companies took the lead during ad breaks of Super Bowl LVI, with Coinbase, FTX, Binance, Crypto.com, and Bitbuy among the cryptocurrency businesses running ads during the widely watched sporting event. The advertising is also occurring in the stadiums. Cryptocurrency exchange FTX secured the naming rights to the home arena of the NBA's Miami Heat (as well as the football field at the University of California). The Los Angeles Lakers and Clippers NBA teams, the Los Angeles Sparks WNBA franchise, and Los Angeles Kings hockey team now play in Crypto.com Arena.

### Environmental


The Bitcoin and Ethereum blockchains currently utilize a mechanism known as “proof-of-work,” better known as “mining,” to validate transactions. This mechanism has come

under scrutiny in debates over how much of a contribution the energy consumed in these validation processes makes to environmental damage. Cryptocurrency miners and their supporters have sought to challenge that narrative, pointing to mining operations that use clean energy sources or even excess natural gas from oil wells that would otherwise be “flared” by burning it. Some have even proposed that cryptocurrency mining could help provide stability to electricity grids by absorbing energy at times when supply outpaces demand and incrementally ramping down their energy intake as demand rises from other consumers.

Against this backdrop is the impending switch of Ethereum to “Ethereum 2.0,” which would switch the network from the “proof-of-work” mining system to “proof-of-stake,” which is less energy-intensive and therefore believed to be more sustainable.

### Policy

Policymakers in Washington, D.C., and across the world are paying attention to the sector and continuing to grapple with the application of existing laws and regulations to blockchain technologies, digital assets, and their market participants, including trading platforms, intermediaries, issuers, and users. Many recognize and support blockchain technology and the decentralized asset ecosystem it enables. At the same time, there are inherent scalability, security, and interoperability challenges that must be addressed as technology matures. The lightning pace of development of new products and services often creates tension with the duties of policymakers to ensure that important risks around financial services are addressed.



**SOME HAVE EVEN PROPOSED THAT CRYPTOCURRENCY MINING COULD HELP PROVIDE STABILITY TO ELECTRICITY GRIDS BY ABSORBING ENERGY AT TIMES WHEN SUPPLY OUTPACES DEMAND AND INCREMENTALLY RAMPING DOWN THEIR ENERGY INTAKE AS DEMAND RISES FROM OTHER CONSUMERS.**

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# LEGAL IMPLICATIONS

### OUTLOOK

#### Transactions | Silvergate Bank Acquires Blockchain Assets of Diem

In January 2022, California's Silvergate Bank, a leading provider of banking services to fintech and blockchain companies, [announced](#) that it acquired intellectual property and other technology assets related to running a blockchain-based payment network from the Diem Group, the stablecoin project from Meta Platforms (formerly Facebook) first announced as Libra in June 2019.

#### Regulatory | SEC and CFTC Enforcement

On numerous occasions, SEC Chair Gary Gensler reiterated his view that most existing digital assets fall under the definition of a security and are therefore subject to SEC regulation. Unsurprisingly, the SEC has continued its aggressive enforcement posture, a move paralleled by the CFTC. Between June 2019 and December 2021, the SEC [announced](#) over 50 enforcement actions against digital assets or initial coin offering-tied participants, and the CFTC announced 30 enforcement actions related to cryptocurrency and digital asset schemes and fraud.

In October 2021, the SEC [approved](#) the first ever bitcoin futures exchange-traded fund (ETF), the ProShares Bitcoin Strategy ETF, though the SEC has continued to reject applications to list spot market-based bitcoin ETF.

#### Regulatory | President's Working Group Report on Stablecoins

In November 2021, the President's Working Group on Financial Markets, joined by the Federal Deposit Insurance Corporation (FDIC) and Office of the Comptroller of the Currency (OCC), released a long-awaited "[Report on Stablecoins](#)." It recommended that Congress enact new legislation to require stablecoin issuers to be limited to insured depository institutions that are subject to "appropriate supervision and

regulation" at the depository institution and holding company level, require custodial wallet providers to be subject to federal oversight, and require stablecoin issuers to comply with "activities restrictions that limit affiliation with commercial entities."

#### Regulatory | U.S. Department of Justice Cryptocurrency Enforcement

In October 2020, the U.S. Department of Justice (DOJ) published the [Cryptocurrency Enforcement Framework](#), which articulated the department's approach to investigating and prosecuting cryptocurrency-related crimes. In addition, in October 2021, the DOJ launched the [National Cryptocurrency Enforcement Team](#) (NCET), which is designed to "tackle complex investigations and prosecutions of criminal misuses of cryptocurrency, particularly crimes committed by virtual currency exchanges, mixing and tumbling services, and money laundering infrastructure actors."

#### Regulatory | U.S. Federal Reserve Explores "Digital Dollar"

In May 2021, the Federal Reserve announced a study of the global payments landscape, including the possible development of a government-issued central bank digital currency (CBDC). CBDCs are a digital representation of fiat currency and are monetary instruments that are direct liabilities of a central bank, making them distinct from traditional digital money (e.g., money held by commercial banks) or cryptocurrencies, including stablecoins. In January 2022, the Federal Reserve Board released a discussion paper, "[Money and Payments: The U.S. Dollar in the Age of Digital Transformation](#)," examining the pros and cons of a U.S. CBDC. Importantly, the paper does not favor any policy outcome.




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### LEGAL IMPLICATIONS (CONT'D)

#### Regulatory | Biden Administration Issues Executive Order on Digital Assets

The federal government has become increasingly interested in digital assets as their use has expanded. In March 2022, President Biden issued an [executive order](#) that set policy objectives for digital asset development and directed agencies to report back with policy recommendations. These objectives included protecting consumers, investors, and businesses, including data privacy and security; maintaining financial stability; and guarding against illicit uses such as money laundering and ransomware. The order also called for the United States to continue leading the development of digital assets and for promoting access to affordable financial services.



**POLICYMAKERS IN WASHINGTON, D.C., AND ACROSS THE WORLD ARE PAYING ATTENTION TO THE SECTOR AND CONTINUING TO GRAPPLE WITH THE APPLICATION OF EXISTING LAWS AND REGULATIONS TO BLOCKCHAIN TECHNOLOGIES, DIGITAL ASSETS, AND THEIR MARKET PARTICIPANTS, INCLUDING TRADING PLATFORMS, INTERMEDIARIES, ISSUERS, AND USERS.**

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### ABOUT US

#### Technology Transactions & Privacy | Fintech & Blockchain Technology

Perkins Coie is a pioneer in blockchain technology legal services and was there when it all began, at the forefront of advising clients on tokenization and bitcoin. We have been focusing on blockchain technology since it first hit the scene and are considered the leading law firm in this area. We have since expanded to the world's largest and leading Blockchain, Digital Assets & Custody legal practice, helping our clients pioneer the vast and diverse uses of blockchain technology.

We are also recognized for our innovative approach to counseling clients who operate at the nexus of financial services and technology. Our team offers a one-stop shop to help our clients innovate, build, run, and support technology-powered financial products and services, and serve a wide range of innovators across the blockchain, payments, and compliance industries.

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July 2022

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