

CONCORDIUM DeFi-TradFi REPORT



A Brave New World: Regulatory-ready DeFi meets TradFi

Building a Safer Digital World with Concordium



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Executive Summary

The financial sector has been on a curious journey aimed at exploring the world of cryptocurrencies and blockchain technology, vetting its opportunities, examining its challenges, and preparing for what promises to be a complete transformation of the global economy as we know it.

With numerous workshops, industry events, and the old and new guard coming together more than ever, the World Economic Forum's 2023 Annual Meeting in Davos was no exception. Decentralized Finance was held up as a significant theme throughout the convention, and its audience was tasked with braving a difficult truth: the financial world is at a critical inflection point, and the time to draw up plans for the economy of the future is now.

Perceptions are shifting, and so are power balances.

Just like the internet contributed to technological innovations on virtually every level in the past twenty years, distributed ledger

technology (DLT) will do the same in the next twenty, and it will do so with revolutionary force. The question is, is our financial system ready for it? What should be the focus regarding regulation, compliance, and consumer protection in the DeFi space?

More importantly, what lessons can be learned from 2023, and how can both TradFi and DeFi find their roles in the global financial system of the future?

Let's find out.



Key themes:



The speed of disruption



The state of TradFi



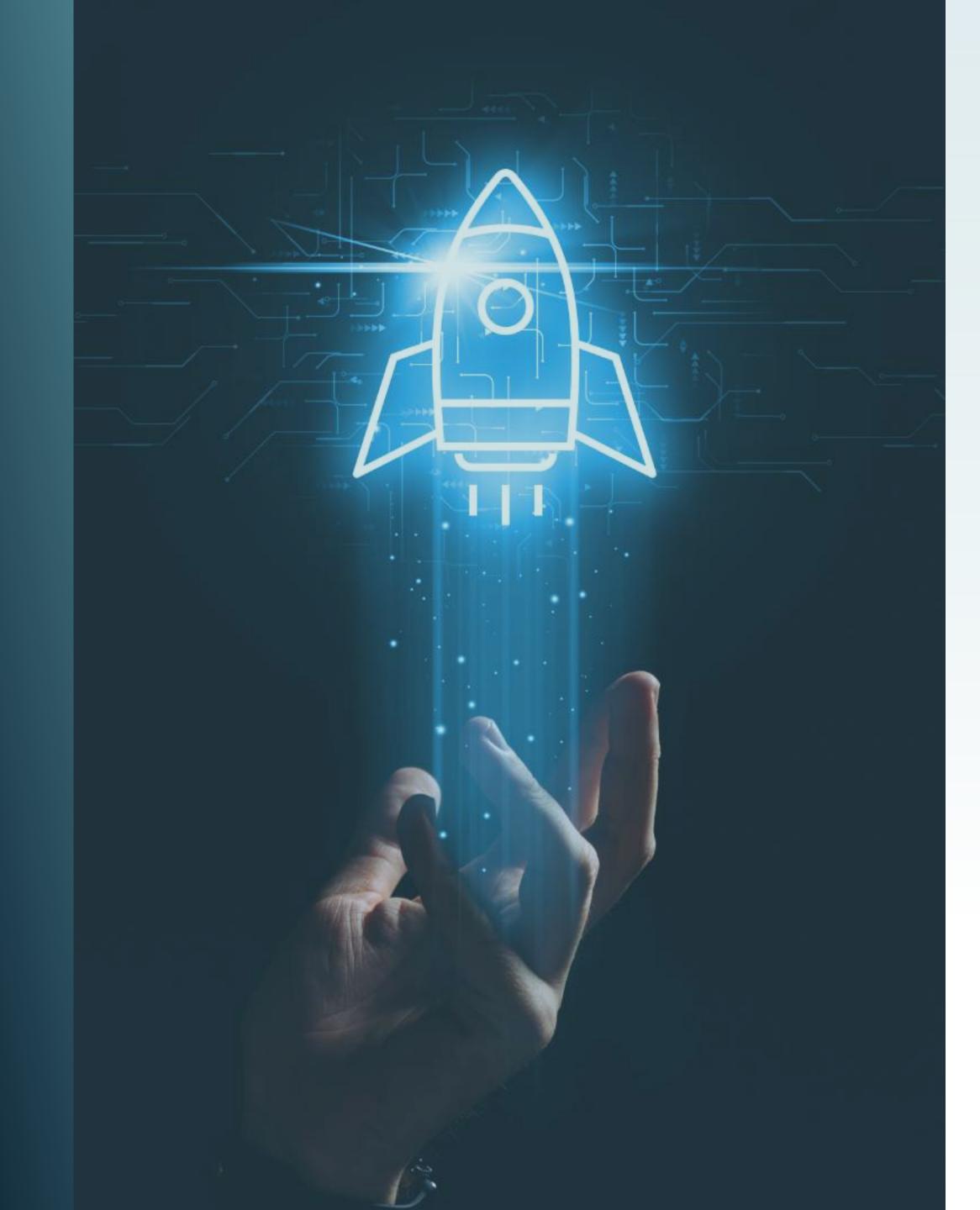
The evolution of DeFi



A self-sovereign ID framework



The regulatory landscape





Chapter 1

The speed of disruption is accelerating

Summary - One key factor impacting the growth of many companies is their inability to renew themselves and stand firm against the pressure of fast-moving unicorns and tech-enabled startups with no shortage of creative inspiration. In the era of digital transformation, companies need to embrace new technologies to stay ahead of the curve.

The lifespan of companies at the top of their game is rapidly decreasing at lightning speed. In 1958, the organizations listed in the S&P 500 had been on the list for an average of 61 years, but the figure dropped to 35 years by the late 1970s and is now a meager 18 years. "The speed of disruption is accelerating," McKinsey reports, adding to their gloomy prediction that by 2027, 75% of the companies currently quoted on the S&P 500 will have disappeared.

One key factor impacting the stunted growth of companies we know and love today is their inability to renew themselves and stand firm against the pressure of younger, more innovative challengers.

These are digital natives, disruptive powerhouses, fast-moving unicorns, and tech-enabled startups with no shortage of creative inspiration. Google's Alphabet, currently one of the biggest names publicly exploring the potential of Web 3.0 technologies, is an excellent example of who's breaking new ground, along with Amazon, Netflix, Meta, and Meta's Instagram, Apple, Sony, and so many more.

Large corporations must join the Web 3.0 revolution to avoid being overrun by their tech-savvy competitors. If you wait for everyone else to go first, you'll always be last. And if you still believe there's a perfect moment, you might have missed it already.





Chapter 2

The current state of TradFi

Summary - In the aftermath of the financial sector's collapse, central banks worldwide needed to prioritize stability, recovery, and growth. The sector faces many challenges currently surrounding financial inclusion and digitization. The time to consider alternative methods is now, to drive financial freedom and better financial futures.

Let's begin by going back in time.

At the heart of the Global Financial Crisis of 2008 was a propensity for opacity, complexity, complacency, and an increasingly fragile balance between profit and risk, both sustained for far too long, seemingly without consequences. Private sector incentives encouraged risk-taking above all, and a lengthy period of positive growth and low market volatility further cemented benign conditions for speculation.

In the aftermath of the financial sector's collapse, central banks all over the world needed to prioritize stability, recovery, and ultimately, growth. The financial ecosystem shrunk, and as it did so, it further consolidated all its powers in the hands of a few banks, ignoring the fact that these giant institutions do not have the trust of the people, and for good reason. They simply haven't earned it. Central banks are, in some ways, more powerful than governments. They resist modernization at all costs, favoring tradition, ambiguity, and power consolidation. But the extreme concentration of power and capital has never been a good idea, and it still isn't today. When troubled lender Credit Suisse went under in March 2023, it risked causing a snowball effect that would ultimately have crippled Switzerland's economy.

The current landscape begs the question: more than fifteen years onwards, have we yet to learn our lesson? And most importantly, are there really no alternative models?



The challenges facing the financial sector

According to the World Bank, 1.4 billion people in the world do not have access to a bank account. They are unbanked and, as such, profoundly and inevitably cut off from the rest of the world in the most significant of ways.

Without any form of bank account, it is impossible to obtain credit, be protected by insurance, get a loan, start a savings plan, or have a simple and direct way to pay bills and other essentials. Figures for financial inclusion and access vary greatly based on several variables. While the unbanked and underbanked make up only 25% of the population in the United States and 12% of the population in the European Union, the MENA area (Middle East and North Africa) estimates that 50% of its people are financially excluded.

When we talk about financial inclusion, we're discussing the need to make sure that everyone has access to the financial services and products they require to safeguard their financial independence and secure their financial future, not only those in advanced nations. Financial inclusion can also help pull entire nations out of poverty by boosting their economies.

For instance, the extensive use of digital financial services in Kenya between 2008 and 2014 assisted in removing about 1 million individuals from extreme poverty. This is equivalent to 2% of the country's total population. In Tanzania, the digitization of water utility payments tripled payments and decreased the average waiting time for collection from 3 hours to 10 minutes on average within a year. Additionally, digitizing payments can enhance farm productivity by up to 60% and sales income by up to 30%. Cash payments for suppliers and distributors in growing areas might reach 20% of a company's yearly turnover.

Digital finance is predicted to increase GDP by \$3.7 trillion annually and create 95 million jobs in all sectors of the economy across all emerging economies. A McKinsey study claims that between 2014 and 2019, digital payments grew by 9% annually in the MENA region, and that they will continue to grow at a CAGR of 15.39% between 2022 and 2026. Based on this logic, we can anticipate an increase in the financial inclusion statistics for the region at any time.



This may also be because the variety of digital payment options available to consumers is constantly expanding. Whereas just a few years ago, these options may have only included bank transfers and possibly mobile app transfers. Now we are seeing innovations like wearables, biometrics, digital wallets, crypto and digital currencies, and QR codes, in addition to ones we may have already grown accustomed to, like contactless payment solutions, and have forgotten how ground-breaking they were just a decade or a few years ago.

"Greater expectation for businesses to provide multiple ways to shop and pay during the pandemic" in the MENA region, with "61% of MENA consumers saying they would avoid businesses that do not accept electronic payments of any kind," a <u>Mastercard study reports</u>.

Therefore, it is safe to argue that the growth and development of the financial services sector, with fintech in particular serving as a major driver of financial inclusion, has positively and significantly influenced financial access across the board.

This is also stated in the 2018 Sustainable Development Goals report from the United Nations, which notes that digital financial services "provide low-income households with access to affordable and convenient tools that can help increase their economic opportunities," as well as aid in risk mitigation for the most vulnerable populations and assist them in adjusting to novel shocks like a global pandemic.

A financial system and strategy capable of demonstrating its purpose and motivation must take into account the demands of the world's unbanked population, especially in emerging and developing economies. Financial inclusion entails creating new business models to adequately improve people's lives globally as opposed to just "at home," as is the case today. It entails planning and making long-term investments, forming alliances with regional businesses, and increasing profitability for all parties. It necessitates lowering poverty while also promoting economic expansion. Operating at the center of a shifting environment is necessary for pandemic recovery and beyond, allowing the 1.4 billion unbanked people in the world to experience the same opportunities as the other 6.3 billion people.

61%

of MENA consumers saying they would avoid businesses that do not accept electronic payments of any kind.

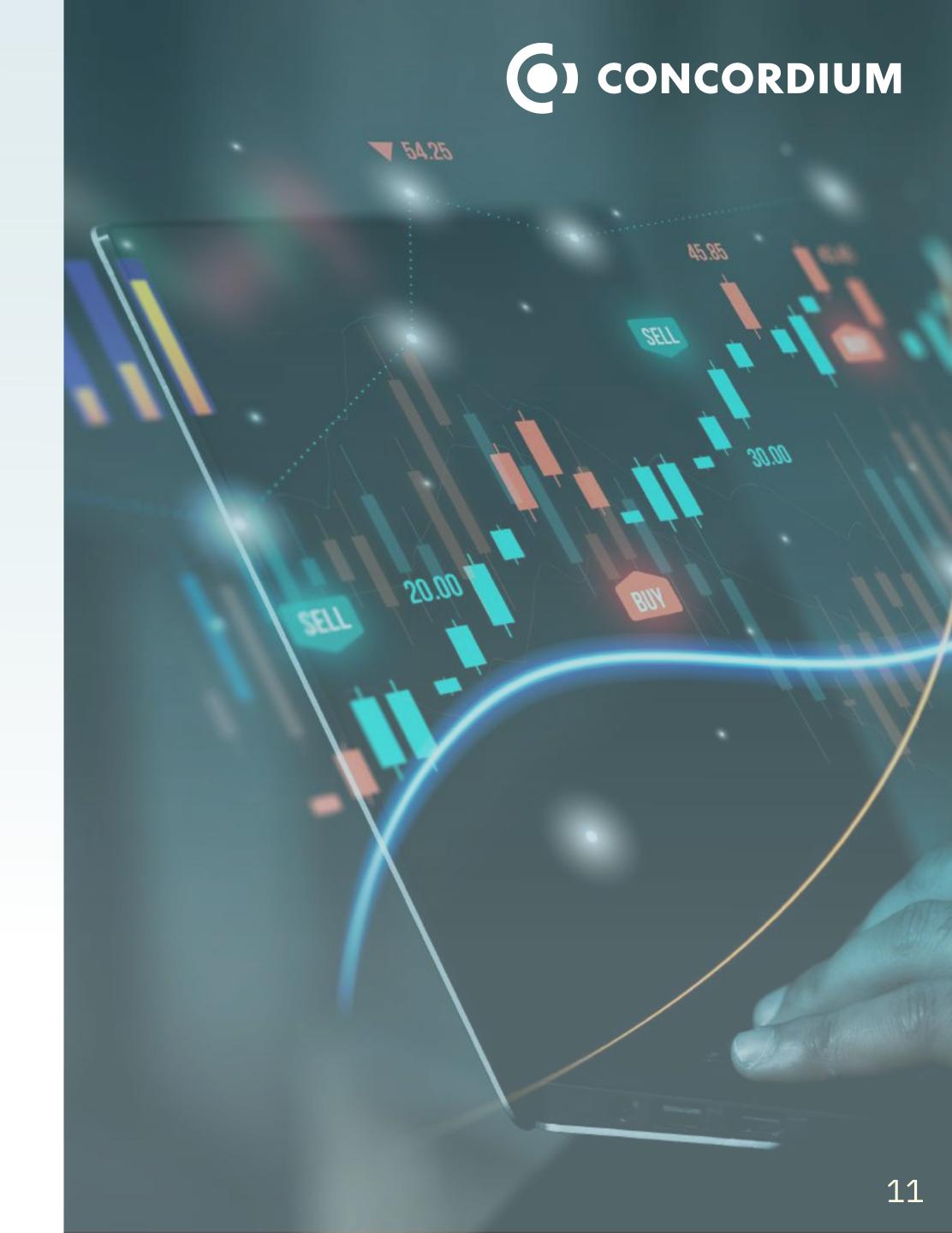
Chapter 3

A paradigm shift

Summary - DeFi has the potential to rewrite the rule book of our global financial systems and catapult us into the economy of the future. Blockchain technology allows for greater security, privacy, and transparency, and its potential remains untapped, presenting exciting opportunities for the future of the sector.

Digitization has greatly expanded the opportunities of all services and applications outside the most traditional of financial institutions. It has also improved the possibility for coordination and integration between different financial intermediaries, which democratizes access while promoting innovation, but further streamlining is still needed.

By offering peer-to-peer, blockchain-based services, including payments, lending, trading, investments, insurance, and asset management through self-executing smart contracts, Decentralized Finance (DeFi) has the potential to rewrite the rule book for our global financial systems and catapult us into the economy of the future.





The traditional banking sector has shown an immense interest in DeFi principles, protocols, and products and is doing its best to keep up with a fast-evolving industry that, at its peak, saw its <u>daily transaction</u> <u>volume exceed \$10 billion</u>. DeFi's remarkable adoption curve has seen locked-up assets grow <u>from less than \$1 billion to more than \$100 billion</u> in the short span of two years, alongside a growing list of innovative products and services.

"DeFi's remarkable adoption curve has seen locked-up assets grow from less than \$1 billion to more than \$100 billion."

Through harnessing the power of distributed ledger and smart contract technologies, Decentralized Finance offers a variety of transformative opportunities in the financial sector. In fact, DeFi will form the basis of a new and improved financial ecosystem, granting considerably higher levels of efficiency, transparency and interoperability than the current, traditional one. With more resilient alternative models, it will successfully remove inefficiencies, reduce costs, and eradicate the need for lengthy settlement times.

Call it the process of eliminating points of failure. Call it the economy of the future. The progress of blockchain technology has reached the point of no return: it now represents an impossible-to-ignore means for financial enterprises to both optimize their internal operations and maximize their external market presence.

If it is in the financial services industry that Web 3.0 found its first true product-market fit, perhaps that's precisely because the financial sector is the one that most needs disruption. For TradFi, turning a blind eye to the opportunities that blockchain presents would be a disservice to its future, and a simple way to remain stuck in a status quo that no longer serves it.

DeFi: A whole new world

Put simply, the vision of Web 3.0 is simply that of <u>a decentralized and fair internet where users control their own data, identity and destiny.</u>
Applied to different industries and sectors, blockchain technology allows for greater security, privacy, and transparency through disruptive potential and reversing the current status quo.



DeFi applications represent a fast-growing segment within the larger Web 3.0 ecosystem and one that is driving the most sustained adoption in the space through high-yield investment opportunities in a borderless environment. Their aim is to ultimately allow for the use of financial products and services without relying on traditional financial institutions, intermediaries, or centralized platform operators.

Why is this such a crucial goal? Convenience, surely, but perhaps most importantly, cost-reduction.

Lengthy onboarding processes, as well as the amount of time involved in trade execution and post-trading activities, make TradFi much more expensive than it needs to be. The sector could reduce up to 80% of what it currently spends on post-trading settlement expenses by leveraging blockchain technology to its fullest. By replacing any and all third-party intermediaries with peer-to-peer lending mechanisms, blockchain also greatly reduces the cost of manufacturing and distribution of assets. Overall, it's estimated that "moving securities on blockchains could save \$17 billion to \$24 billion per year in global trade processing costs."

DeFi is, in very simple terms, the cheapest choice — but that's not all.

There is enormous value in adding internal safeguards and compliance-ready elements to DeFi's already efficient protocols. This is especially true for institutional players, who will be able to enter a

new and exciting arena of financial interoperability and versatility. They would be able to do it in a compliant manner, which provides enterprises with a transparent framework. This would mean more liquidity into DeFi protocols and retail consumers, pushing greater widespread adoption.

DeFi benefits:



Cost-effectiveness of DeFi



Internal safeguards and compliance-ready elements



Attraction of institutional players



Increased liquidity and widespread adoption

While DeFi applications have primarily attracted crypto enthusiasts in their nascent stages, the last few years have shown where the real potential of this technology lies: big-money investors, Fortune 500 companies, and the world's biggest banks and financial institutions are increasingly looking for the right opportunities to enter the DeFi space.

In order to do so safely and efficiently, they need to know that the privacy-first promise of blockchain can and will be balanced by rigorously high standards of accountability and transparency. TradFi investors and institutions understand that faster and safer transactions could help reduce managing costs and make their processes significantly smoother, but before they fully trust the technology and its potential, they will need reassurance that the Web 3.0 world is on the narrow path to regulatory compliance.

TradFi will offer a reliable and compliant infrastructure, and DeFi will add to it a system of trust, reduced costs, and the promise of innovation. In such a view, the future of Web 3.0 will revolve around a mature, trustworthy blockchain that both users and institutions like banks, regulators and businesses can use and trust. In order to pave the way for this transformation, key players and regulators need to come together to prioritize accountability and reliability, which will promote trust, innovation, and wider adoption.

The stronger the infrastructure, the greater the transformation. The sooner, the better.





Future-proofing the economy

- Giants like US Bank, JPMorgan Chase, Bank of America and IBM can be considered early adopters of blockchain technology, but a <u>survey of 200 Fortune 500 executives</u> recently found that 94% of them also currently have plans for blockchain-related projects.
- Siam Commercial Bank, Thailand's oldest financial institution, recently bet on DeFi as the future of global finance to the tune of a \$110 million fund.
- A 2022 Celent survey found that 91% of institutional investors are interested in investing in tokenized assets and that 88% of global institutional investors are comfortable with digital representations of cash using blockchain-based technology.
- A 2021 survey by the Bank for International Settlements found that 90% of central banks were investigating the potential of central bank digital currencies (CBDCs).

- A <u>recent report</u> commissioned by Casper Labs revealed that "nearly 90% of businesses in the US, UK, and China are starting to use blockchain in some capacity," with a further 87% stating their likelihood to invest in a blockchain solution in the next 12 months.
- Forbes and McKinsey agree that blockchain technology has the potential to change our world for the better, while JP Morgan Chase goes as far as saying it could "have as great an impact (on society) as the internet. Additionally, experts at PwC expect that "between 10% and 15% of worldwide infrastructure will be using blockchain within a decade", which is compelling evidence that we are only just witnessing the beginning of the transformative potential of this technology.

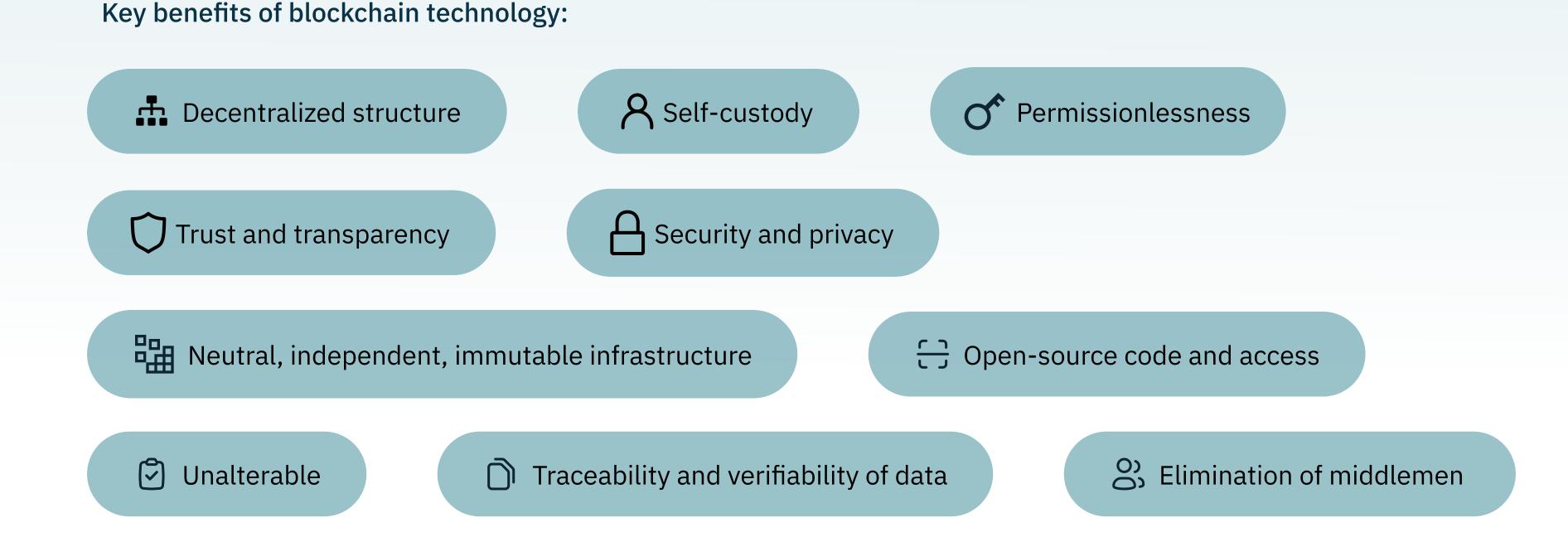




Chapter 4

Key benefits of blockchain and DeFi

Summary - Blockchain is all about secure data, sage data registration, easy, immediate ownership transfer - and most importantly, trust. DeFi is just one of the many use cases benefiting from the application of blockchain technology. Some of its key benefits include ensuring users retain control over their assets, real-time value movement, and secure, transparent, and in real-time transactions.





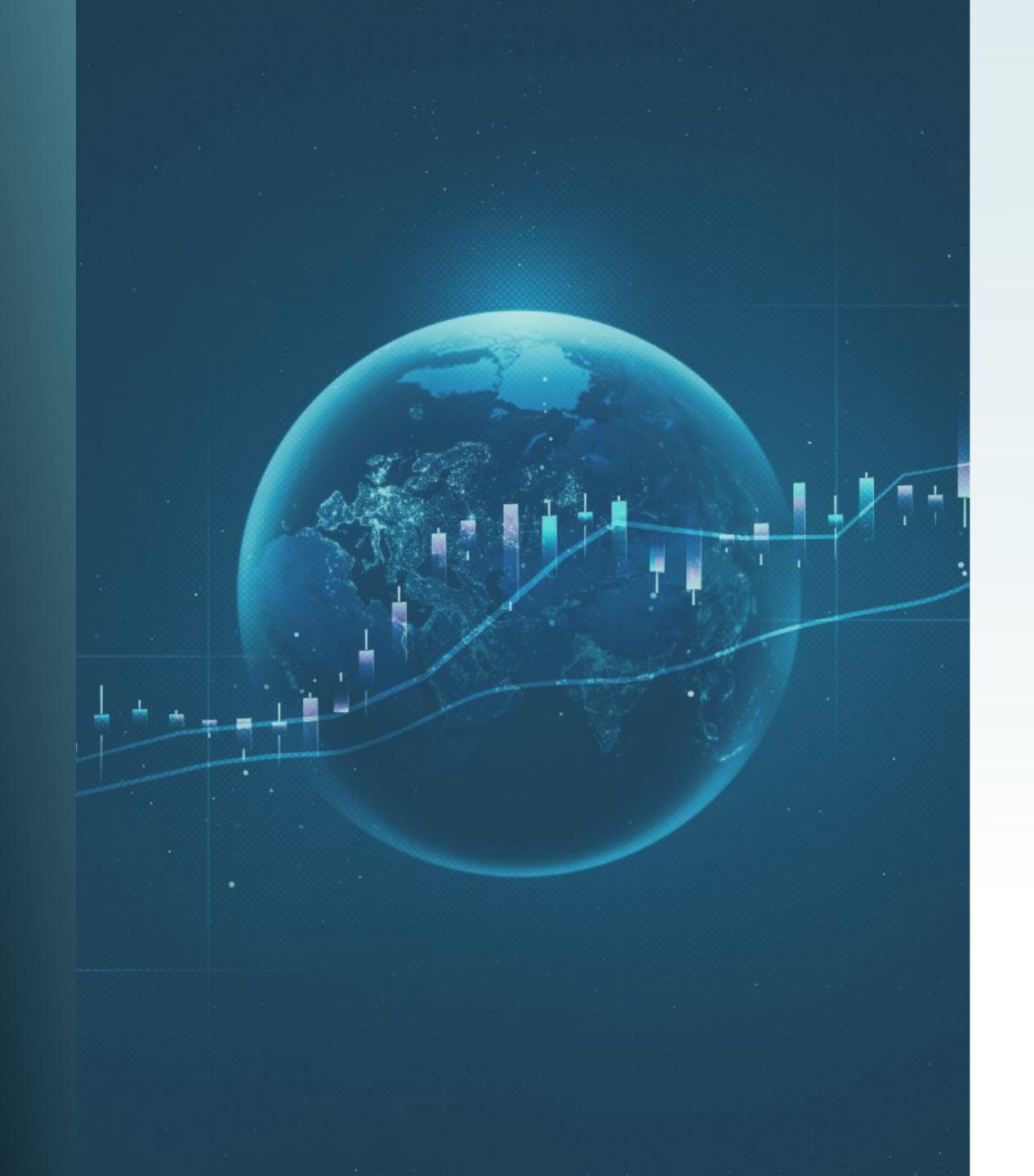
What blockchain is all about

Once all the buzzwords and hype are removed, blockchain is really about secure data, sage data registration, and easy, immediate transfer of ownership —and, most importantly, trust. In a truly innovative and inherently transparent manner, the technology can promote the kind of trust system that could transform the financial industry: no middlemen, decentralized records, instant and error-less transactions, and smooth and efficient processes.

When properly designed, blockchain simply represents a way to have all the data you need in one place in a way that is public, transparent, 100% secure, and demonstrably so. Create a registry of who owns which data at any point in time, make the data immutable, and get ready to witness a revolution.

Collective trust in centralized systems and institutions is waning and should not be taken for granted. On the other hand, blockchains are public, decentralized, and completely transparent: they cannot be bribed, corrupted, or made to discriminate between different parties. They are neutral and impartial by design. DeFi is just one of the many use cases benefiting from the application of blockchain technology, and its proponents make a strong case for its widespread use throughout the financial sector.

"When properly designed, blockchain simply represents a way to have all the data you need in one place in a way that is public, transparent, 100% secure, and demonstrably so."





Key benefits of DeFi over TradFi:

- Reduced barriers to entry
- Users retain control over their assets
- Real-time value movement, cheaper settlement
- More opportunities for financial innovation and global integration
- Transactions are secure, transparent, and happen in real time
- Increased interoperability between different financial services
- Reduced overhead and processing costs
- Elimination of inefficiencies
- Open-source protocols
- Simple and inherently friction-less solutions
- Low exchange fees
- Smart contracts operate automatically
- Tamper-proof, auditable data



Regulatory-ready DeFi

TradFi and DeFi must work together

A <u>2022 research paper</u> from the International Monetary Fund writes that the economic old guard and decentralized finance must work together if they wish to solve our most pressing collective challenges.

"If they are to attain mainstream adoption, DeFi and crypto must integrate some of the regulatory and self-regulatory practices that have brought functional stability to TradFi. But there's also an urgent need for the stewards of the global economy to explore DeFi and crypto solutions to its many problems."

As often is the case, the trick is to find a sustainable balance.

As the infrastructure continues to evolve, we can expect to see more innovative use cases and applications that will transform various industries and promote a more equitable economy. While the blockchain industry has some way to go before it entirely supersedes traditional infrastructure, there is no doubt its impact is already felt in the world's economy.

Soon, the world's biggest companies will conduct safe and secure transactions on the blockchain, with <u>banking giants like JP Morgan</u> already ahead of the curve. The DeFi model might still need some

regulatory oversight. Still, its promise will become the basis of the migration from Web 2.0 to Web 3.0, forming the foundational building blocks of the future of finance.

Change is on the horizon. As one of the most significant driving factors in the space, DeFi is efficiently breaking down barriers that the traditional financial system has been protecting for decades. DeFi is transforming the financial ecosystem and democratizing traditional finance. It is doing this by driving inclusivity, ensuring those who are currently excluded from traditional banking have access to financial services. Blockchain technology is paving the way for a more efficient and transparent financial system within a permissionless and borderless ecosystem.

While there's so much more to look forward to regarding the evolution of its use cases and applications, its potential is undeniable, and greater synergy between the TradFi and DeFi is a crucial element on the road to the economy of the future.

As tech visionary, author, and entrepreneur Stewart Brand once said: "Once a new technology rolls over you, if you're not part of the steamroller, you're part of the road."



Debunking the Crypto Wild West myth

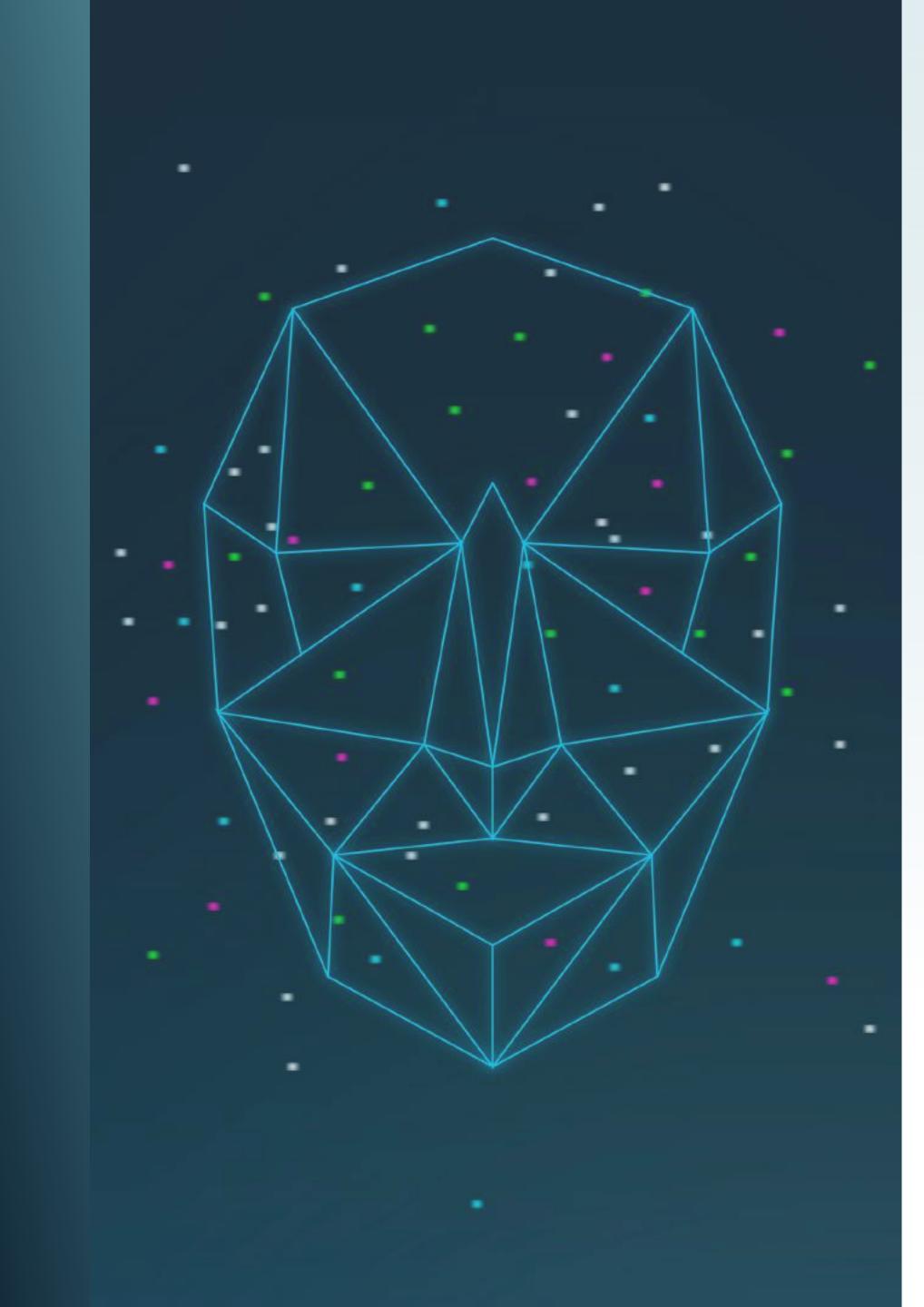
There's a common misconception that the world of Web 3.0 is some sort of Crypto Wild West where nobody plays by the rules, and everybody gets away scot-free. It may have been in its inception but things have changed significantly since.

In reality, major DeFi names and key crypto players have been clamoring for regulatory clarity for years. However, the industry cannot borrow and benefit from the same legal framework in place for TradFi. This means the space will remain unprotected, and mass adoption will remain a mirage.

Research from The International Monetary Fund suggests that regulators should "impose stricter fiduciary requirements on the managers of (TradFi) services—treat them like brokerages or other regulated financial institutions" while working in tandem with operators in the DeFi space to "develop self-regulatory solutions that tap into its technological strengths and lean into its decentralized structure."

DeFi's adoption curve has been remarkable, but as regulatory scrutiny represents a key challenge for Web 3.0, implementing various safeguards and requirements could prove key to further scaling it to mainstream adoption.

The present moment reveals a huge opportunity for the financial industry to invest in the possibility of DeFi and combine two different business models in the name of accessibility, safety, and innovation.





Chapter 5

Scaling DeFi with a compliance-ready self-sovereign ID

Summary - For Decentralized Finance (DeFi) to harness the potential of blockchain, the industry must place a similar set of regulatory securities. Regulatory-ready DeFi doesn't come with a one-size-fits-all solution, but all business applications can harness the potential of blockchain to unlock new possibilities. DeFi's potential lies in helping companies migrate their business to blockchain in total safety.

Traditional Finance (TradFi) benefits from a variety of safeguards and regulations protecting investors, institutions, and all parties in any and all transactions taking place in its ecosystem. For Decentralized Finance (DeFi) to fully harness the potential of blockchain and smart contract technology, the industry will inevitably need to implement a similar set of regulatory securities.

This is a crucial point — perhaps the most important thing to understand — when it comes to collaboration and cross-pollination between the two sectors, as well as the ultimate goal of "institutionalizing" Decentralized Finance (DeFi).



Regulatory-ready DeFi doesn't come with a one-size-fits-all solution, but all business applications have one thing in common: they harness the potential of blockchain technology to unlock new possibilities for individuals, industries, and institutions. As such, institutional-grade DeFi solutions need to empower individuals and businesses to navigate Web 3.0 confidently, and they can do so with a blockchain-based ID layer, which fundamentally increases the potential for this technology when it comes to financial operations.

Investors are looking for clarity, accountability, and as much protection as they can possibly find. Businesses need to know that the user on the other end is a real, verified person, but that individual may also want to keep their ID somewhat private. The solution is a built-in self-sovereign ID framework at the protocol level of a trusted, public chain with all the benefits of a private one.

An ID framework is essential in the DeFi space and beyond, as it ensures KYC (know your customer) compliance and the most advanced level of privacy, cybersecurity, and risk control that blockchain technology can offer. It guarantees privacy and security while, at the same time, reducing the risk of identity theft or fraud and allowing every transaction to be monitored with utmost accuracy and transparency.

A permissionless blockchain with a unique ID layer at the protocol level has the potential to verify, secure, and manage user identities in a completely automated manner, thereby eliminating the need for human checks and cutting any related timings and costs.

A compliance-ready ID framework significantly lowers any entry barriers for businesses to build regulatory-compliant applications in a healthy DeFi ecosystem.

Its potential lies in helping companies migrate their businesses to blockchain in total safety and unlocking a global, decentralized, multi-trillion-dollar Web 3.0 economy built on trust and real-world utility.

Legal clarity is the key to regulatory-ready DeFi

Decentralized Finance (DeFi) is moving towards becoming a new and improved global financial paradigm, but to successfully drive adoption, the sector needs to center security and, crucially, welcome regulations. A fair and locked regulatory landscape could greatly benefit DeFi, and the industry needs to take a proactive approach toward compliance and legal clarity.

For example, following the <u>July 2023 ruling</u> by Judge Analisa Torres, which classified the crypto asset XRP as "not necessarily a security" under the law, XRP's price jumped nearly 30% compared to the US dollar. Shortly after that, the same thing happened when cryptorelated stocks <u>soared</u> by more than 10% in response to the US Court of Appeals rebuking the Securities and Exchange Commission's flawed logic for rejecting a spot market bitcoin exchange-traded fund (ETF).

Legal clarity is the key to institutionalizing DeFi and will drive adoption at scale. A lack of consumer protection has been holding DeFi back, but a more thorough regulatory framework will enable growth in the sector and lead to further exciting innovations.

By addressing regulatory uncertainty with greater compatibility and security, key players in the DeFi space will be able to rewrite the rules of institutionalized finance as a whole and continue to develop its potential in new and innovative ways at an accelerated speed.





Key benefits of regulations in DeFi:

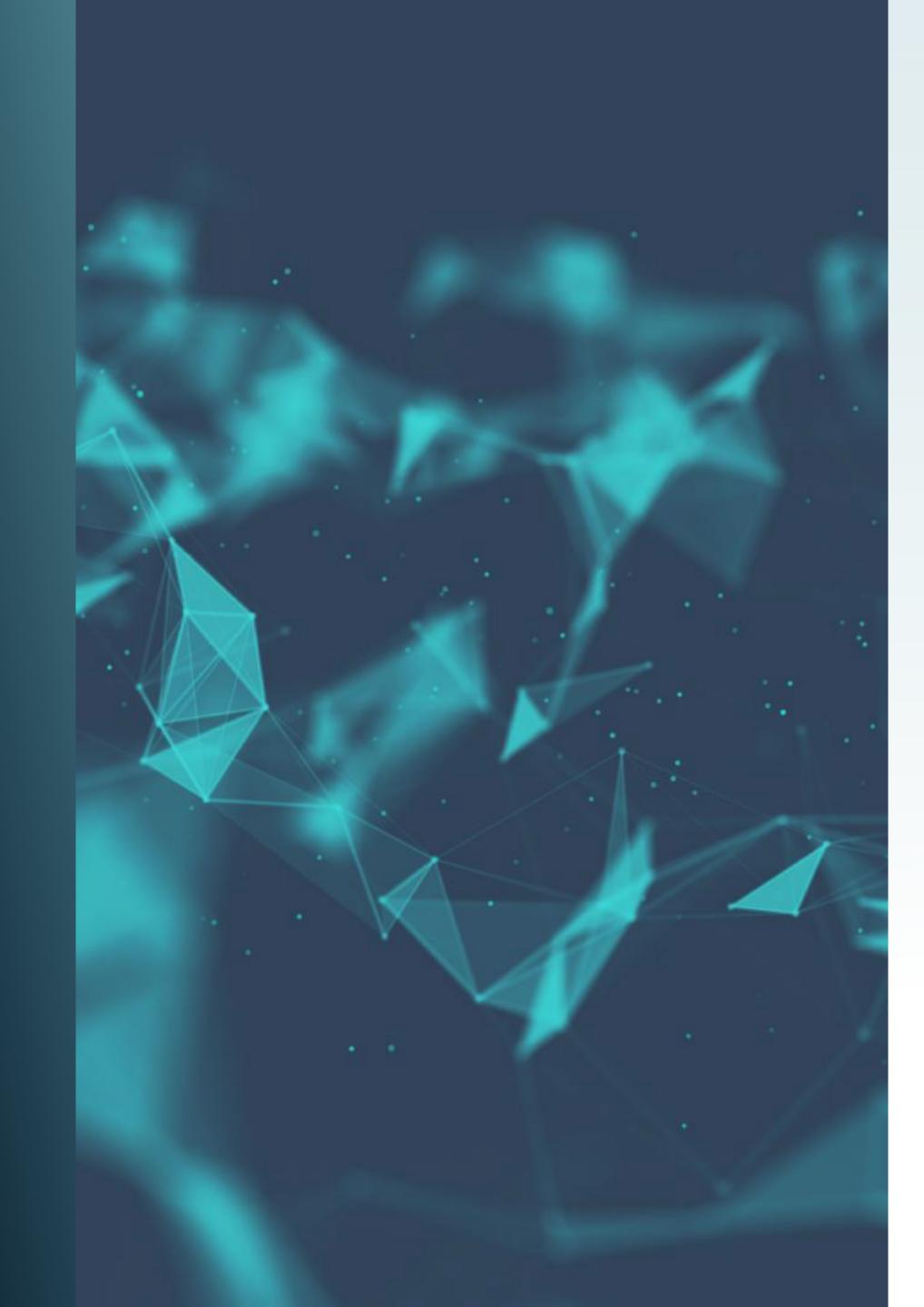
Potential for experimentation, delivery of new products and services

- Increased clarity, reduced uncertainty
- Protect users, prevent market manipulation, and promote financial stability in DeFi

(a) Wider acceptance, adoption, and trust

"Rug pulls" and scams in crypto highlight the need for regulation

Ability to improve efficiency





Chapter 6

The regulatory landscape

Summary - Regulatory oversight is a key concern when thinking about blockchain technology and Web 3.0 within the financial sector. Blockchain is set to completely transform the way financial institutions are set up, how financial assets are distributed, and the makeup of our global economy. TradFi and DeFi will continue to merge for years, but some key considerations are needed on the road to mass adoption.

2023 has seen the crucial advancement of several regulatory frameworks with far-reaching impact in both the cryptocurrency industry and the financial sector as a whole. Landmark bills highlighting lawmakers' concerns when it comes to money laundering and consumer protection have made their way through the EU Parliament and Capitol Hill in the first half of 2023, paving the way for further regulatory clarity to come in 2024 and beyond.

It's important to note that a significant majority of them were marked by jubilant celebration in the Decentralized Finance (DeFi) space: Coinbase CEO Brian Armstrong, for example, labeled the Financial Innovation and Technology for the 21st Century Act as "a vote to protect your crypto, American innovation, and national security."



Others, like the Crypto Asset National Security Enhancement and Enforcement (CANSEE) Act, were met with less than encouraging support. Lars Seier Christensen, Concordium Chairman & Co-Founder, noted the many inconsistencies at the heart of the bill, which could "eventually lead to the Secretary of Treasury adopting stringent control over many projects, leading to the DeFi industry being controlled entirely by a governmental body, and becoming more centralized than traditional finance itself."

One way or another, crypto legislation will continue its inevitable journey to further regulatory clarity, milestone legal protections, and other landmark rulings deciding the future of the financial industry. From the regulation of digital assets and stablecoins, to that of crypto ATMS and other blockchain service providers, and the need for DeFi to ensure KYC compliance through an ID framework or other identity-focused measures, the road to a global regulatory framework is sure to promise more surprises in the future. In the meantime, let's take a closer look at the major policy milestones of 2023.

Markets in Crypto Act, or MiCA

The Markets in Crypto Act, or MiCA, is the world's first comprehensive regulatory framework targeting the crypto industry. The landmark bill effectively constitutes the first rules to ever trace crypto-asset transfers and prevent money laundering, as well as common rules on supervision and customer protection.

Covering crypto assets falling outside of existing financial services legislation, MiCA includes key provisions for those issuing and trading tokens under new guidelines of transparency, disclosure, authorisation and supervision of transactions. This innovative legal framework offers consumers better protection against risks, costs, and the charges linked to their operations, while continuing to support market integrity and stability.

Under MiCA rules, crypto wallet providers will need to identify their customers upon fund transfers, stablecoin issuers will need to adhere to new governance and financial requirements, and crypto companies, such as exchanges and wallet providers, will need to obtain an operative license.

MiCA represents the most significant step towards mainstream crypto regulation taken by any nation or regulatory body, and as such, it's a fundamental provision paving the way for the rest of the world to follow in its footsteps. After the European Parliament approved it in April 2023, with 517 votes in favor to 38 against, it was officially published in the Official Journal of the European Union (OJEU) the following June, although it won't formally take effect until December 30, 2024.

Stefan Berger (EPP, DE), lead MEP for the MiCA regulation, said: "This puts the EU at the forefront of the token economy with 10 000 different crypto assets. Consumers will be protected against deception and fraud, and the sector that was damaged by the FTX collapse can regain trust. Consumers will have all the information they need and all underlying risks around crypto-assets will have to be monitored. We secured that the environmental impact disclosure will be taken into account by investors in crypto assets. This regulation brings a competitive advantage for the EU. The European crypto-asset industry has regulatory clarity that does not exist in countries like the US."

Ernest Urtasun (Greens/EFA, ES), co-rapporteur for the Economic and Monetary Affairs Committee on crypto-asset transfers said: "Currently illicit flows in crypto-assets are moved swiftly across the world, with a high chance of never being detected. The Recast of the TFR will oblige crypto-asset service providers to detect and stop criminal crypto flows and also ensure that all categories of crypto companies are subject to the full set of anti-money laundering obligations. This will close a major loophole in our AML framework and implement in the EU the most ambitious travel rule legislation in the world so far, in full compliance with international standards."





The Financial Innovation and Technology (FIT) for the 21st Century Act

The US House Financial Services Committee passed the landmark Financial Innovation and Technology (FIT) for the 21st Century Act on July 26, 2023, which aims to establish concrete principles of financial clarity and security within the cryptocurrency market.

Introduced on July 20, 2023, by Reps. French Hill (R-AR), Glenn "GT" Thompson (R-PA), and Dusty Johnson (R-SD), the bill represents the most comprehensive crypto regulation ever voted on by the US Congress and a milestone victory for the regulation of the digital assets industry.

The FIT for the 21st Century Act establishes a much-needed and wished-for digital asset framework, and additionally, it contains a provision that provides for joint rulemakings between the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC). It garnered vital bipartisan support in the US Congress, highlighting a positive shift in the collaboration between the crypto industry and policymakers in Washington, DC, indicating strong momentum driving further regulatory clarity to come.

The Lummis-Gillibrand Responsible Financial Innovation Act, or RFIA

The Responsible Financial Innovation Act, introduced as a bipartisan package on July 12, 2023, by United States Senators Cynthia Lummis and Kirsten Gillibrand, is a proposed regulatory framework for digital assets containing important consumer protection provisions targeting the

cryptocurrency industry.

The 2023 version of the RFIA bill represents a departure from previous iterations of the law, partly accelerated by the string of bankruptcies befalling the cryptocurrency industry in 2022. The Lummis-Gillibrand act provides substantive regulations rooted in consumer protection principles for both Crypto Asset Intermediaries and Payment Stablecoin Issuers, prioritizes combating illicit finance, revises the federal tax code to more precisely reflect crypto asset and securities transactions, introduces the Consumer Protection and Market Integrity Authority, and draws a clear and crucial division between Securities and Exchange Commission ("SEC") and Commodity Futures Trading Commission ("CFTC") jurisdiction over cryptocurrencies. The bill also regulates the tax treatment of digital assets, including an "exemption from income tax for purchases using digital assets that result in a gain or loss of \$200 or less," which ensures that "consumers who transact in small amounts of crypto do not face the same type of tax liability as those who transact in large sums."

By providing clarity and structure for businesses and regulators, assigning regulatory authority over digital asset spot markets to the CFTC, and imposing disclosure requirements on digital asset service providers, the Responsible Financial Innovation Act would significantly advance the US position in the digital assets market, thus creating great opportunities for further innovation and critical progress across the board.

The Crypto-Asset National Security Enhancement (CANSEE) Act

Aimed at combating the abuse of crypto protocols by criminal and enemy actors, the bipartisan Crypto-Asset National Security Enhancement Act was introduced in July 2023 by US Senators Jack Reed (D-RI), Mike Rounds (R-SD), Mark Warner (D-VA), and Mitt Romney (R-UT) to address the issues of privacy and anti-money laundering regulations and privacy in the Decentralized Finance sector.

The novel requirements included in the CANSEE Act would force DeFi service providers to meet the same AML obligations that banks, securities brokers, casinos, pawn shops, and centralized trading platforms are currently subject to. However, critics of the bill have noted that the very money laundering risk assessment from the US Department of the Treasury states that "the use of virtual assets for money laundering remains far below that of fiat currency and more traditional methods," highlighting the need for better financial privacy protections outside of the DeFi sector.





The Blockchain Regulatory Certainty Act

Introduced in January 2019 and marked up by the House Financial Services Committee on July 26, 2023, the Blockchain Regulatory Certainty Act affirms that blockchain developers or providers of a blockchain service should not be treated as a money transmitter or financial institution unless they custody customer funds.

Devised as "a safe harbor from licensing and registration for certain non-controlling blockchain developers and providers of blockchain services," the bill would ensure "that entities such as cryptocurrency miners, validators, and wallet providers would not be subject to burdensome money transmission regulators."

In discussing the nonpartisan bill, US Majority Whip Tom Emmer highlighted how "a clear and consistent regulatory landscape will ensure we don't drive this transformative technology overseas or drive American consumers to bad actors," "allow blockchain innovation to flourish right here in the US," and provide regulatory clarity benefiting both the marketplace and consumers.

The Keep Your Coins Act

Introduced by US Congressman Warren Davidson (OH-R) to preserve Americans' right to privacy in transacting with crypto assets, the

Keep Your Coins Act was passed by the House Committee on Financial Services with bipartisan support on July 30, 2023.

Aimed at protecting the right to privacy when transacting with crypto assets, the landmark bill crucially prohibits any federal agency from "promulgating a rule that would impair a person's ability to use convertible virtual currency such user's own purposes or their ability to self-custody digital assets," essentially eliminating the need for transaction facilitators and intermediaries in favor of peer-to-peer transactions.

Congressman Davidson said: ""As the federal government seeks more regulation of the crypto ecosystem, it seeks to impose more surveillance over American citizens. It's vital that we preserve the attributes of cash transactions by protecting the permissionless nature of cash. No third party should be required for two people (or companies) to use money as a means of exchange, store of value, and record of account. This bill ensures that individuals will always have the ability to transact without any intermediaries."



The Clarity for Payment Stablecoins Act

The US House Financial Services Committee approved the Clarity for Payment Stablecoins Act on July 27, 2023, an important regulatory framework for the issuance and oversight of payment stablecoins.

Introduced by US Congressman Patrick McHenry (R-NC), Chairman of the House Financial Services Committee, the legislation protects self-custody for digital assets and establishes regulatory paths for approving and regulating stablecoin issuers while continuing to ensure the necessary consumer protections. The Clarity for Payment Stablecoins Act proposes the definition and regulation of stablecoins, the licensing and supervision of stablecoin issuers, coordination with international regulatory bodies and standards, and the requirement for important anti-money laundering provisions like AML and KYC processes.

Discussing the bill, Chairman McHenry said: "This announcement is a clear signal that stablecoins—if issued under a clear regulatory framework—hold promise as a pillar of our 21st century payments system. Clear regulations and robust consumer protections are essential to enabling stablecoins to achieve their full potential. That's why it's more important than ever that Congress enact legislation to provide comprehensive digital asset regulation, especially for stablecoins. The bipartisan Clarity for Payment Stablecoins Act recognizes the strong role that states have played in regulating digital asset firms and builds on successful state regimes, like New York's. We are currently at a crossroads to keep America at the

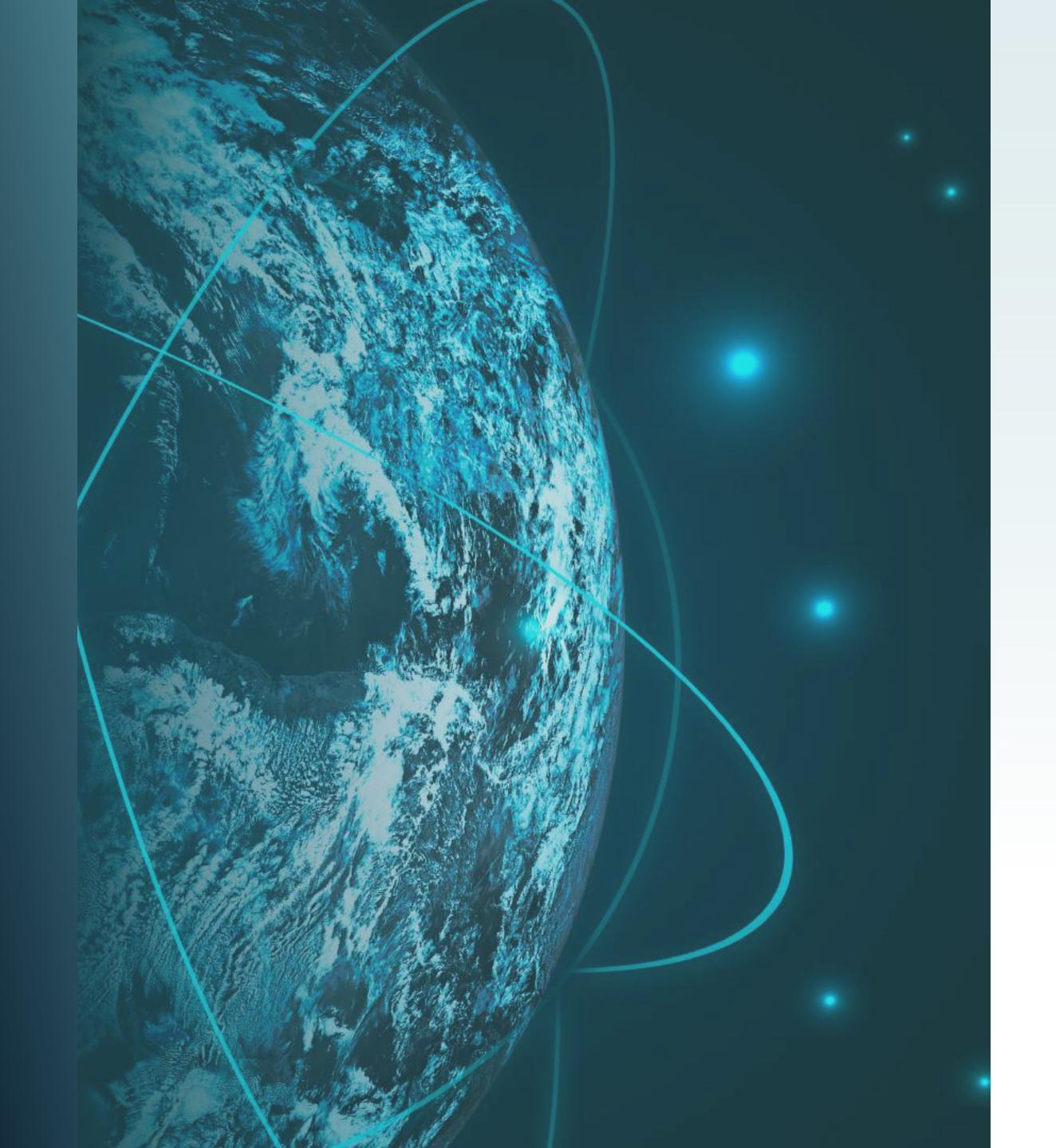
forefront of digital asset innovation. Congress is making significant, bipartisan progress on legislation to ensure the U.S. leads the financial system of the future. We must finish the job."

Regulatory compliance opens the door to innovation

How DeFi needs to evolve

While considering the disruptive potential of blockchain technology and Web 3.0 applications within the financial sector, key players in the DeFi space need to start thinking about the endgame in slightly different terms.

Regulatory oversight is a key concern and must be taken into account as such. Additionally, the technology itself needs to further mature beyond its nascent implementation, and successfully capitalizing on the economic shift to come will be a gradual process. New and previously unexplored markets will form, along with novel categories of tokenized assets. More mature infrastructure and partnerships, and value propositions will follow in their support.





On the other hand, financial institutions, investors, and C-suite executives need to realize that the winds of change are blowing, and they might bring a storm with them. Blockchain technology will completely transform how financial institutions are set up, how financial assets are distributed, and the makeup of our global economy.

TradFi and DeFi will continue to cross-pollinate for years to come, and their coexistence will foster greater trust in a vision of a different economy. If on-chain finance is inevitable, what are the key considerations needed on the road to mass adoption?

Project Guardian

In May 2022, the Monetary Authority of Singapore launched <u>Project Guardian</u>, a "collaborative initiative with the financial industry that seeks to test the feasibility of applications in asset tokenization and DeFi while managing risks to financial stability and integrity."

The project ultimately aimed to "test the feasibility of applications in asset tokenization and DeFi while managing risks to financial stability and integrity," and it "demonstrated the feasibility and transformative potential of using DeFi protocols in financial markets with appropriate guardrails."





Selected industry pilots:

- HSBC, Marketnode, and UOB have successfully concluded a technical pilot on the issuance and distribution of a digitally native structured product, demonstrating the potential for lower issuance and servicing costs, reduced issuance and settlement times, deeper customizability, and broader distribution for participants within the structured product chain.
- UBS Asset Management is launching a pilot to explore the native issuance of Variable Capital Company (VCC) funds on digital asset networks.
- Schroders is partnering with Calastone to explore the capabilities of a tokenized investment vehicle using VCCs.
- DBS Bank, JP Morgan and SBI Digital Asset Holdings conducted foreign exchange and government bond transactions against liquidity pools comprising of tokenized Singapore Government Securities Bonds, Japanese Government Bonds, Japanese Yen (JPY) and Singapore Dollar (SGD).

DBS Bank, SBI Digital Asset Holdings, and UBS AG are executing a pilot repurchasing agreement with natively issued digital bonds.

As for exploring DeFi's true potential as a scalable solution, Project Guardian identified legal clarity, adoption incentives, and technical standards alignment as areas needing further activity from "regulators, financial intermediaries, clients, and other third parties, including DeFi communities."

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As seen in:

Bloomberg

FINANCIAL TIMES

Forbes

POLITICO



CITYA.M.



Market Watch









Chapter 7

Concordium's blockchain

Summary - Enterprises need a trusted, public chain, with all the benefits of a private one, to successfully migrate global businesses to blockchain.

Concordium's vision is to create a safer digital world through the power of blockchain. Concordex is Concordium's new ecosystem, the first regulatory-ready Decentralized Exchange (DEX) on the market and accessible to even novice investors.

A science-backed, environmentally responsible Layer 1 blockchain that unlocks new possibilities for individuals, industries, and institutions.



Building a safer tomorrow

To migrate global business to the blockchain, enterprises need a trusted, public chain with all the benefits of a private one.

Concordium's vision of creating a safer digital world through the power of blockchain translates into a strong focus on supporting a healthy DeFi ecosystem while protecting the right to privacy and keeping personal information safe.

As a science-based proof-of-stake offering safe transactions and a high degree of cryptographic software competence, Concordium can facilitate the compliant use of blockchain technology in the economic activity of businesses, institutions, and individuals globally, thereby unlocking a multi-trillion-dollar economy.

Concordium believes that blockchain technology and blockchain-based applications can (and should) be both law-abiding and decentralized: its aim is to successfully marry decentralization with regulatory compliance through innovative protocols designed for enterprise use.

Compliance by design

Concordium aims to empower individuals and businesses to navigate Web 3.0 confidently by providing a science-backed, environmentally

responsible Layer 1 blockchain that enables verifiable self-sovereign data ownership and secure transactions at low cost.

Concordium's most attractive features improve accessibility, privacy, efficiency, and security, ultimately contributing to a more robust and user-friendly decentralized finance ecosystem. Its unique approach to balancing user identification and privacy, combined with a focus on offering innovative services and platforms within a regulatory-ready ecosystem, make Concordium a leader in the coming transformation of the TradFi and DeFi sectors.

Concordium's first native DEX, Concordex is an institutional-grade decentralized exchange catered primarily to institutional investors. It is a trusted protocol ensuring accessibility, full ownership and security. Concordex is the most institution-ready blockchain in the world.

Build with DeFi solutions or decentralized applications (dApps) on Concordium, and future-proof yourself today to thrive in a changing financial landscape.



Key benefits:





The most secure and efficient identity verification process in a decentralized context, Concordium's integration of verifiable credentials is crucial for ensuring compliance and regulatory requirements, expanding privacy, and reducing the risk of identity theft and fraud.



Low and stable transaction fees

Fixed fees in EUR terms, always predictable and always low.



Science-backed platform designed by world-class team Concordium blockchain is designed with safety in mind and

peer-reviewed research conducted at COBRA is the backbone that provides the technical basis for our innovative protocols and technologies.



Modern smart-contract language

Smart contracts written in Rust allow for safety, high versatility, and verifiability.



Shielded transactions

Enhancing security, protecting user data, and fostering trust in the DeFi ecosystem through increased privacy and confidentiality.





Allow users to interact with the blockchain without needing to hold or spend cryptocurrency to pay for transaction fees, reduces entry barriers for users, and enhances accessibility to DeFi applications, thereby encouraging wider adoption.

Fastest finalization layer



At an average of 11 seconds, Concordium is significantly faster than Bitcoin or Ethereum, ensuring high responsiveness for DeFi applications and allowing users to execute trades or provide liquidity almost instantaneously.

Higher transactions per second



High TPS throughput prevents congestion, supports advanced use cases, and allows more users to engage with the system at the same time.



Concordium's new ecosystem: the first regulatoryready DEX on the market

Designed to be an optimal DeFi gateway for institutional investors, Concordex offers a plethora of features, including staking, swapping, perp trading, and sophisticated liquidity management. This suite of tools makes DeFi not just accessible but also highly advantageous for institutional players.

Cutting through the complexities traditionally associated with concentrated liquidity market maker models, Concordex allows even novice investors to find an accessible platform for entering the DeFi space, thus ushering in a brand new era of trust in Web 3.0.

Key benefits:

Improved DeFi usability

Uses smart contracts to automate the management of liquidity pools.

Optimal returns for liquidity providers

The platform's liquidity pools offer concentrated liquidity and multiple fee tiers.

Consistent and faster block production

Compared to the current Nakamoto-style consensus, the block speed may be around twice as high or higher.

Consistent and fast finalization

Providing a best-in-class user experience.

Improved baker management

A baker is a party that runs the Concordium consensus algorithm on their computer or in the cloud. They order the transactions submitted to the chain, and build the chain block by block. With Concordex, bakers will be able to manage their nodes more easily with the new ConcordiumBFT consensus.

Transparency over baker performance

Giving delegators better metrics when choosing which baker to delegate their stake to.



Chapter 8

Case studies

Case study: Concordex

The first decentralized exchange designed to be regulatoryready

Designed to be an optimal DeFi gateway for institutional investors, Concordex offers a plethora of features, including staking, swapping, perp trading, and sophisticated liquidity management. This suite of tools makes DeFi not just accessible but also highly advantageous for institutional players. The Concordex DEX aligns with Concordium's foundational principles of combining decentralization with regulatory compliance, bringing to life the notion that blockchain-based applications can be both law-abiding and decentralized.

Case study: Arabella Bridge

The seamless crypto bridge connecting Ethereum and Concordium

Arabella allows users to effortlessly bridge any ERC20-compatible token, as well as the native ETH token, from Ethereum to a CIS2 token on Concordium. With a seamless and secure transactional interface between Ethereum and Concordium, Arabella is pivotal in fostering interoperability between the two parties, empowering users to navigate and engage with both ecosystems seamlessly.





Case study: Øverlay

The first RegDeFi token launchpad on Concordium is ready for mass adoption

Øverlay and Concordium partnered to help protect users from fraud within a decentralized structure: our blockchain enables Øverlay to combine the benefits of TradFi and DeFi to provide a secure and flexible platform for capital raising through IDOs. Concordium's zero-knowledge proof and ID layer ensure the integrity of fundraising activities and Øverlay's compliance with regulations worldwide, whereas Øverlay offers a flexible, performance-based token distribution model that incentivizes early adopters and rewards long-term participants.

Start building on Concordium

Concordium is uniquely positioned to offer forward-thinking businesses, application developers, and cryptocurrency traders unrivaled security, privacy, transparency and most importantly, regulatory compliance.

Get started with developing and running your first node on Concordium, launching a token on a Concordium Ecosystem launchpad or getting listed on Concordium's native Decentralized Exchange, Concordex.

Join a Telegram group with other ecosystem projects

We offer a network for sparring with other projects, get ecosystem updates and talk directly to our community managers. Join our Telegram or Discord groups to engage with us and other projects building on Concordium blockchain.





Get in touch:

Go to <u>our website</u> if you are interested in building on Concordium or want to reach out to the commercial team.



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Appendix: Interview with Lars Seier Christensen

Lars Seier Christensen, TradFi veteran and global pioneer in FX and derivatives trading

Danish entrepreneur and investor <u>Lars Seier Christensen</u>, founder of Concordium and VC firm Seier Capital, chairman of the non-profit <u>Concordium Foundation</u>, and co-founder of Saxo Bank, tells us all about why he founded Concordium, the need for a bridge between TradFi and DeFi, and his views on the future of the financial sector. With a portfolio valued at approximately \$400 million, Seier Capital's investments explore the potential of blockchain technologies in all its forms.

Why did you start Concordium, and how has your vision evolved since then?

I founded Concordium to spearhead a more mature part of the blockchain industry. We see a massive demand for blockchains like Concordium and a few others with science-backed scalable software that lives up to the highest software certification and operates to a zero-downtime discipline.

Concordium enables use cases to apply a high level of regulatory compliance because it is crucial to adhere to existing guidelines to

ensure the safety and stability of the ecosystem. Regulation is also vital in giving users, investors, and businesses greater confidence in DeFi, thus encouraging greater adoption. We are so early and undervalued that despite the news of a recession, there is still great potential for incredible products with revolutionary, concrete, real-world applications.

Just last year, I doubled down on my trust in the Concordium project to the tune of a 10 million Euro investment, proving to the crypto and blockchain community that now is an excellent time to build and get funding in time for the next bull run. My ambition is also to provide the framework for several new funds, where other crypto investors can set up fund vehicles to build on and invest in Concordium. The virtues of blockchain lie in its transparency, security, and decentralization.

Unlike traditional database systems, blockchain infrastructure is immutable, meaning it cannot be changed or censored. This enables organizations and governments to prevent fraud in a wide range of contexts. On an individual level, blockchain ledgers allow consumers to regain control over their personal data, but additionally, blockchain's transparency also opens the door for businesses to streamline and authenticate their supply chain networks.



Something unique to Concordium is its focus on both privacy and accountability. How important is privacy in the "ordinary" world compared to Web 3.0?

Beyond the Web 3.0 users for whom privacy is top of mind, more broadly, users are starting to pay closer attention to their privacy on social networks they interact with. Just recently, when Meta's new Threads platform launched, there was a lot of chatter around its privacy settings, revealing the world at large is really beginning to place a heavy importance on user and personal data privacy. Because social media databases are centralized, they have been subjected to hacks, giving bad actors access to confidential data that they can use to seek ransoms or share publicly. Another major issue they've faced—one that has cost them millions—is the creation of fake profiles.

But there are solutions. For example, mysome.id is a social media profile verification tool built on Concordium's unique identity protocol, meaning it is highly secure and transparent. The tool provides users with a verification badge and stores these digital identities in their wallets, meaning their data is hosted in a decentralized, private manner. Thanks to zero-knowledge proof and scientifically-backed cryptography, mysome.id ensures each user's authenticity while protecting their privacy. This secures the possibility of distinguishing between genuine and fraudulent accounts and removes the need to share personal information with big tech platforms.

How do you view the relationship between TradFi and DeFi?

I think TradFi's infrastructure is somewhat broken and needs restructuring. DeFi is not perfect—in fact, I see it as being in a similar place to where the internet was after the dotcom crash—but it certainly holds the keys to solving the biggest problems the financial industry faces today. That isn't to say DeFi will replace TradFi, but rather that they can work together to improve services to businesses and individuals globally.

Today's traditional finance system has failed to include <u>13 million</u> adult EU citizens and a staggering 1.4 billion adults worldwide. Decentralized finance (DeFi) provides a means of mitigating this exclusion.

By removing the need for intermediary management of assets, blockchain enables the maximally efficient allocation of resources, thus ensuring that every member of society can enjoy unbiased access to credit services. Blockchain is a powerful tool for righting the catalog of inefficiencies within the traditional finance (TradFi) sector by streamlining processes and facilitating more inclusivity and higher grades of global accessibility.



How would you explain the need for a complete transformation of the financial sector to TradFi enthusiasts who might be afraid to wade into Web 3.0 waters?

The digital economy as we know it is changing. Although still realizing its potential, blockchain has been setting the pace for the next iteration of the internet, offering tremendous promise for the evolution of digital interaction, financial services, and digital rights. While blockchain's fuelling of cryptocurrencies remains a central growth point, blockchain technology holds a far greater potential beyond the investment sphere. Indeed, blockchain is poised not only to enact a transformative influence on our industries but to revolutionize our entire economy.

Do you welcome more regulations in the realm of DeFi?

Of course, I think it's the only way forward and a very big part of Concordium itself, which is compliance-ready by design. Although blockchain is decentralized by virtue of its very nature, it has been clear to us at Concordium that regulation was inevitable. We anticipated this from the very beginning and have uniquely incorporated an encrypted identity stamp into the protocol layer of our blockchain without compromising GDPR. That's because zero-knowledge-proofs (ZKP) allow parties to verify information without exchanging or storing that information on-chain other than hash functions. Concordium can already solicit and validate ZKPs, and we're currently building this

capability into our wallets. If required by a court order, personal data can be uncovered through a legal process by an independent network of "identity revokers" vis a vis the 'identity verifiers'. The solution is unique as it balances the requirements of regulation with individual privacy as required by GDPR.

How do you envision the future of blockchain technology and DeFi?

The future of blockchain lies in real-world adoption at an industrial scale, not in the fleeting world of crypto hype and speculation. It's about bolstering data security, eliminating single points of failure, revolutionizing logistics chains, democratizing markets through tokenization, providing immediate, deterministically finalized settlements, and enabling compliance with inevitable regulations. It's about harmoniously merging ID, accountability, and privacy. It's high time for the industry to grow up, accept the world around it, and integrate itself into it. The corporate interest in practical blockchain applications in real-world processes is only growing, even as crypto speculation wanes. As we stand on the brink of dramatic changes, I urge you to be thoughtful about where you build, invest, and apply your intellect in the coming years.





Lars Seier Christensen

Lars Seier Christensen is Chairman of the Swiss non-profit Concordium Foundation. With over 30 years of experience across the banking and financial sector, Seier Christensen is a global pioneer in FX and derivatives trading, having co-founded the online trading and investment platform Saxo Bank in 1992. He served as co-CEO of Saxo Bank for more than 20 years, in which time the bank grew to 1,500 employees across 150 locations serving customers in 170 countries. SaxoTrader, the bank's flagship online trading offering, was launched in 1998 and was one of the first online FX trading platforms in the world. SaxoTrader has since grown to become one of the world's most complete multi-asset trading platforms. Seier Christensen is also the founder and sole owner of Seier Capital, a private equity and venture capital firm that specializes in investments in angel, seed, and A-round stage companies. The firm invests in art & fashion, financial services, food and beverages, sports & entertainment, social media, and technology industries.

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