Finance and Space

ISSN: 2833-115X (Online) Journal homepage: www.tandfonline.com/journals/rfas20

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To cite this article: Chris Muellerleile (2025) From cryptocurrency to cryptofinance: FTX, disintermediation and the US state, Finance and Space, 2:1, 492-509, DOI: 10.1080/2833115X.2025.2589384

To link to this article: https://doi.org/10.1080/2833115X.2025.2589384

Published online: 10 Dec 2025.

FINANCE AND SPACE
2025, VOL. 2, NO. 1, 492–509
https://doi.org/10.1080/2833115X.2025.2589384

From cryptocurrency to cryptofinance: FTX, disintermediation and the US state

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ABSTRACT

During the first decade of cryptocurrencies (2008–2017) there were few connections established between crypto and the conventional finance sector, but in the US in 2025 the integration of these two sectors is proceeding at speed. This paper examines one part of this integration – the centralisation of cryptocurrency trading inside of large, digital platformed exchanges, which is theorised as a shift from *cryptocurrency to cryptofinance*. Furthermore, the paper shows how this shift to cryptofinance has been aided by an emergent *crypto-state nexus*. The novel contribution of the paper is explaining how the US crypto markets have progressed from niche, relatively decentralised and blockchain-based, with little association with or regulation by nation-states, into what is now competition between FinTech-fuelled, digital platform firms that provide suites of financial services and instruments and collect fees for mediating access to the underlying blockchain markets. Empirically, the paper traces the rise of Sam Bankman-Fried's firm, FTX, as it evolved from a small, California-based start-up running arbitrage trades in 2017 into one of the world's largest crypto exchanges servicing over a million customers in 2022. In light of the FTX story, the paper analyses the geographical political economy of platformed cryptofinance as it struggles with both the incumbent financial sector and the US state.

ARTICLE HISTORY
Received 6 November 2024
Accepted 10 November 2025

KEYWORDS
Cryptocurrency; blockchain; platform; decentralisation; Securities and Exchange Commission (SEC); Commodity Futures Trading Commission (CFTC); Sam Bankman-Fried; FinTech

JEL
P1; P16; G1; G18; E4; E44

1. Introduction

On 11 November 2022, after a week of frenzied attempts to secure credit, the Bahamas-based cryptocurrency exchange, FTX, declared bankruptcy in a Delaware court. Soon thereafter, the founder and CEO, Sam Bankman-Fried (SBF), surrendered to law enforcement officials in the Bahamas, and was subsequently extradited to the US to stand trial. Despite maintaining his innocence, less than a year later Bankman-Fried was found guilty of fraud, and in March of 2024 sentenced to 25 years in prison.[1] Bankman-Fried had established FTX just five years earlier with roughly $$50 million in seed money, and to say the firm grew rapidly is an understatement. In July of 2021, Bankman-Fried hinted that FTX could eventually buy Goldman-Sachs (Szalay, 2021), and in October of that year he was featured on the cover of Forbes magazine as one of the wealthiest people on the planet under 30. In early 2022 FTX was widely cited as having a net worth over US$$30 billion.

First learning his craft at the Wall Street quantitative trading firm Jane Street from 2014 to 2017, Bankman-Fried established a start-up firm to run arbitrage trades between disconnected crypto exchanges across the globe. The firm then evolved into a FinTech-driven, ultra-efficient trading platform, but it also leveraged its cutting-edge digital infrastructure to market a wide range of financial services to both retail and institutional investors. As the chief of a footloose firm, Bankman-Fried moved FTX's headquarters from Berkeley, California to Hong Kong and finally to the Bahamas between 2018 and 2021. It was during the time in the Bahamas that Bankman-Fried turned his gaze back to the US financial markets and began lobbying US financial regulators to allow his firm greater access to US investors.

One of FTX's innovations was the use of algorithmic trading to remove humans from a key part of the trade settlement process. However, this so-called *disintermediated clearing*, was prohibited from use in the

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US market by financial regulators. To overcome this and other regulatory hurdles, Bankman-Fried spent a lot of time in Washington, DC in 2021 and 2022 building relationships and attempting to reshape the US regulatory state to suit his disruptive business model. In the process, FTX landed at the centre of a series of debates in the US over disintermediation, financial market acceleration and the role of cryptocurrencies in the broader financial infrastructure. FTX went bankrupt before it resolved its competitive position in the US market, but these debates continue and are central to the contemporary political economy of finance, not least as it relates to cryptocurrencies and FinTech.

There is more to the story of FTX and Bankman-Fried than can be told here. Parts of it make for arresting drama (cf. Lewis, 2023). But rather than the drama or a full chronological account, this paper focuses on the meteoric rise of FTX – as opposed to the collapse – as a way to understand how cryptocurrency markets have evolved over the last decade. The novel contribution of the paper is to explain how crypto markets have progressed from niche, relatively decentralised and blockchain-based, with little association with or regulation by nation-states, into a set of digital platform firms who collect fees for mediating access to the underlying blockchain markets and meanwhile lobby the US state for favourable treatment. I call this an evolution from *cryptocurrency to cryptofinance,* a crucial part of which has been attempts to crack open the relationship between the state and the incumbent financial sector.

As large platform firms like Coinbase, Binance and FTX before it collapsed, have emerged they have become competitive threats to the incumbent financial sector. In the financial press this is commonly referred to as the struggle between traditional finance (aka TradFi) and blockchain-driven or decentralised finance (aka DeFi) (see Zook & Grote, 2024), even if much of what was called DeFi is now mediated by centralised firms. Regardless, from the perspective of both the US state and incumbent finance, which together are often referred to as the state-finance nexus (Harvey, 2010; Lai, 2023), cryptofinance is both a competitive 'offshore' threat and a potential model of innovation, efficiency and financial inclusion. But states stand guard over the gates to conventional financial markets, and despite the libertarian rhetoric that animates the crypto sector, the big crypto platforms have learned that access to US investors requires engagement with state financial regulators. Previous efforts had mainly been combative (Kellerman & Seddon, 2024), and Bankman-Fried was one of the first crypto entrepreneurs to constructively and publicly engage with the US state. In this he followed a strategy that the incumbent finance sector has perfected over the last 50 years. That is – lobby politicians with cash, and at the same time frame innovation as disruptive and progressive, and in this case, a foreign or offshore threat to US competitiveness.

By tracing the rise of FTX, this paper makes four original contributions to debates and gaps in the critical economic disciplines, and particularly economic and financial geography. First, while the literature on cryptocurrencies has grown dramatically over the last five years, there are still relatively few critical engagements with individual cryptocurrency firms (see Caliskan, 2020; Rella, 2020) in this rapidly growing sector. As such, there is little understanding of firm-level competitive and strategic positioning, including in relation to state regulation. Second, while there is now a sizeable body of research on the geography, political economy and socio-technical aspects of FinTech and FinTech platform firms (Haberly et al., 2019; Langley & Leyshon, 2021, 2023; Wojcik, 2021), there is a distinct lack of engagement with cryptocurrency and related firms *as a form of FinTech*. Third, while there is existing research considering competition and cooperation between digital or 'cloud' capital and finance capital (Hendrikse et al., 2018, 2020), cryptocurrencies have largely been left out of the debate (except Zook & Grote, 2020, 2024). And last but not least, particularly within economic geography, while there is renewed interest in variegated forms of state capitalism (Alami & Dixon, 2024), as well as the importance of the state to various geographies of FinTech (Hall, 2023; Hendrikse et al., 2020; Lai, 2023; Langley & Leyshon, 2023) there has been little engagement with the role of the state in structuring cryptocurrency innovation and markets, or of the intersection of cryptofinance with conventional finance.

The latter contribution is particularly important in light of the re-election of US President Trump, who moved to quickly restrict US regulators from prosecuting cryptocurrency firms under many existing financial regulations, and at the same time began building a group of crypto enterprises himself. The Trump Administration's relationship with the crypto sector is mostly out of scope for this paper, but the story of FTX sheds important light on the regulatory pre-history of the current moment. In the final section of the paper I consider how the story of FTX demonstrates that, at least in the US, the once libertarian cryptocurrency movement may now taking the form of a *crypto-state nexus*.

The research discussed here is part of a broader project investigating the intersection of cryptocurrencies with the conventional financial sector. This included 14 in-depth interviews conducted between April of 2022 and June of 2023, most of which were conducted via videoconference, but several of which happened face to face in Chicago. Interviewees included current and former financial regulators, financial exchange officials, and institutional crypto traders. Much of the specific data on FTX was gathered from secondary sources, including US government agency archives, Congressional hearings, online interviews of SBF and others, and trade publications and newspapers.

The paper is organised as follows. The next section sets the stage by reviewing existing scholarship related to geographical political economy and the state regulation of FinTech, cryptocurrencies and blockchains. Section 3 traces the evolution of cryptocurrencies and the firms that begin mediating them including FTX. Section 4 discusses the state financial regulatory structure in the US in light of the emergence of centralising offshore crypto platform firms. Section 5 follows FTX as it reached the height of its success and influence in 2021 and 2022. Here I analyse FTX's attempt to 'onshore' one of its FinTech innovations related to the dis-intermediated clearing of crypto derivatives trades, which was quickly identified as a threat to the incumbent financial derivatives sector. Section 6 synthesises the findings of the paper and discusses the implications of reframing decentralised cryptocurrency as centralised cryptofinance for the future of research on platformed FinTech, the incumbent financial sector, and the politics of state regulation of crypto.

2. From cryptocurrency to cryptofinance

The concept of decentralised finance (or DeFi) only makes sense in relative terms (Schneider, 2019). Even if there are distinct spatial characteristics of a distributed monetary infrastructure in some cryptocurrencies, for instance bitcoin or ripple/XRP (Rella, 2020), as an explanatory concept in political economy decentralisation only makes sense *in comparison* to the relatively centralised characteristics of conventional finance. This is not to say that the concept of decentralisation is unimportant. Undoubtedly, the ideology and politics of decentralisation are important forces behind the development of cryptocurrencies (Zook & Blankenship, 2018). And furthermore, as I will discuss below, debates over the definitions of decentralised markets have important implications for financial regulation in the US. Nevertheless, the argument I will make is that a better way to understand the evolution of cryptocurrency into cryptofinance is as a process of dis- and re-intermediation related to FinTech and digital platforms. The following literature review will help to make this case by exploring some of the ways that geographers and proximate researchers have explained cryptocurrencies, FinTech, digital platforms and the state regulation of finance.

2.1. From blockchain to currency exchange

For the first several years after Nakamoto (2008) published the manifesto for monetary decentralisation that was the Bitcoin white paper, cryptocurrency was a marginal socio-technical movement (Dodd, 2018). But the 2007–2009 Global Financial Crisis (GFC) cleared the way for a radical monetary response and the possibility of a monetary system that required no centralised authority to function was attractive to many. As resentment of states and their entanglement with the financial sector (Harvey, 2010) spread in the wake of the GFC, bitcoin gained popularity (cf. Eich, 2019, 2022). At the same time, as bitcoin and other cryptocurrencies have become more popular, they have also gradually become more entangled with, if not mediated by, various kinds of centralised institutions.

Caliskan (2020, p. 546) points out that bitcoins (the tokens) had close to zero monetary value until 2010, when the first exchange, Bitcoinmarket.com, opened that allowed conversion of bitcoins into fiat currency. Prior to this bitcoins only had value to a niche group of users of the Bitcoin blockchain, or those who valued the underlying monetary infrastructure (see Rella, 2020). This is not to suggest that even in the early days, bitcoin was not a form of money. On the contrary, from the very start, for those who 'trusted the code' (Maurer et al., 2013), bitcoin was the centrepiece of a socio-technical 'money-world' (Hayes, 2021), but this money world did not extend into markets for exchange value, or finance. In fact, for many enthusiasts bitcoin is more money-like than fiat currency because the value of the latter can be manipulated by political institutions (Dodd, 2018), while the former is imagined to be more like a commodity money such as gold

that must be mined directly from the ground, or in the case of bitcoin from the socio-technical webs of networked computers.

At the same time, Nakamoto and other early enthusiasts of bitcoin realised that until bitcoins could be used to buy and sell things in the 'real world', or things not directly associated with the blockchain, it would struggle to gain popularity (Popper, 2015, pp. 41–62). This began to change as the dark web commerce site Silk Road emerged. More people began using bitcoin, especially to buy illicit drugs and along with this bitcoin attracted more attention and its value relative to the US dollar began to increase. But not everyone who wanted to use bitcoin to buy or sell things had the time or expertise to mine it, so there was a demand for easy ways to exchange bitcoin for fiat currencies. These early exchanges, such as Japan-based Mt. Gox established in 2010, enabled buying and selling of bitcoin without interacting with the underlying blockchain. They enabled this because they also provided 'custody' for bitcoins, meaning they would hold them for customers in an account off the blockchain.[2] These were the first 'on and off ramps' from the shadowy blockchain markets to something resembling liquid foreign currency exchange. The implication, however, was that these exchanges were centralising control over large quantities of bitcoin within a single firm. Not surprisingly, these exchanges – as *intermediaries* of the decentralised blockchain – also became the first object of regulatory surveillance and law enforcement by states with a focus on tax evasion and money laundering (Campbell-Verduyn, 2018).

Since the mid-2010s there has been an explosion of firms seeking to mediate cryptocurrencies and the underlying blockchains for different kinds of financial investors (Zook & Grote, 2020). There have been many other attempts, some successful and some not, to use blockchain technology as an infrastructure for other kinds of financial operations (cf. Rella, 2019, 2020; Zook, 2023; Zook & Grote, 2020). But the more that cryptocurrency becomes embedded in various socio-economic institutions, which might otherwise be a sign of progress for a money form, the less cryptocurrency resembles the utopian dream of a politically disembedded and decentralised money (Dodd, 2018). Interestingly however, even as the utopian dream of a decentralised money dependent only on technology has failed to manifest itself, the ideas continue to be powerful and resilient (Zook & Blankenship, 2018), particularly in relation to techno-libertarian and anarcho-capitalist ideologies that have proliferated in the twenty-first century (Lynch & Munoz-Viso, 2024; Slobodian, 2025; Smith & Burrows, 2021).

2.2. FinTech mediation

Financial technology or FinTech is produced and deployed in a wide variety of financial services and has geographically variegated effects (Lai & Samers, 2021; Wojcik, 2021). One thing it has enabled is both incumbent and start-up firms to replace human, paper and non-digital processes, or even entire firms, with digitally-driven substitutes. Not unlike the process of digital platforming more generally (Langley & Leyshon, 2017), this process of dis- and re-intermediation has been central to how scholars of FinTech have explained its widespread adoption (Lai, 2021). As with many other digital technologies, boosters of FinTech argue that the disintermediation of conventional banks has the potential to democratise and improve financial inclusion anywhere it is employed, and particularly across the Global South (Ioannou & Wojcik, 2022). But while there is some evidence that tech-fuelled efficiencies have lowered barriers to entry for things like asset management (Haberly et al., 2019), the claim that FinTech inherently flattens financial relations must be challenged, and at a minimum, contextualised in geographically variegated space.

For instance, FinTech has been shown to produce highly uneven outcomes (Ioannou & Wojcik, 2022), including by exacerbating older settler-colonial patterns (Bernards, 2022). The point is that it is crucial to follow the actually existing processes of dis- and re-intermediation by platform-based firms with an awareness that some FinTech firms are highly capitalised and aim to consolidate monopoly positions (Langley & Leyshon, 2021). Like start-ups in other digitising sectors, FinTech start-ups benefitted greatly from the cheap money era between the GFC and the COVID-19 pandemic when venture capital firms were seeking to invest in proto-monopolies (Langley & Leyshon, 2017). This includes several platform-based cryptocurrency firms such as Coinbase and FTX.

Based on an ethnographic study of one anonymous crypto firm, Caliskan (2020) argues the architectural metaphor of platform is not sufficient to make sense of the wide-ranging and open-ended processes of economisation occurring alongside this firm. While the firm relies on a digital platform, the variety of financial

services are 'stacked' into an open-ended and interrelated set of financial services, which supports Langley and Leyshon's (2021) argument that FinTech firms (and their capital investors) are preoccupied with establishing a monopoly position.

But as mentioned above, it is not just digital 'disruptors' that are disintermediating financial services away from 'incumbent' firms. In many cases it is conventional banks and other TradFi firms that are benefiting most by integrating digital platform-based services into existing operations (Haberly et al., 2019; Hendrikse et al., 2018; Lai, 2021). Part of the reason for this is that start-up FinTech firms that emerge from the tech sector rather than the finance sector often struggle to manage the complexities of financial regulation by states (Haberly et al., 2019). There is, however, very little existing research on the ways that crypto firms, including large platform firms, have attempted to manage regulatory complexity (although see Kellerman & Seddon, 2024).

2.3. States and cryptocurrency

Another reason to question the revolutionary discourse of decentralised finance is that despite the idea that FinTech disintermediation might disrupt the spatial ordering of finance that is dominated by global financial centres (Wojcik, 2021), the preliminary consensus is that it has not (Haberly et al., 2019; Ioannou & Wojcik, 2022; Wojcik, 2021, p. 880). States play a role in perpetuating the dominance of primary financial centres by encouraging incumbent financial firms to remain competitive by adopting digital tech (Hendrikse et al., 2020). One of the few studies of the development of a blockchain ecosystem has shown the importance, in the case in the Netherlands, of the spatial concentration of blockchain start-up firms, state regulators and policy makers (Faria, 2021).

At the same time, FinTech has also accelerated the dispersion of some parts of vertically disintegrating financial firms (Haberly et al., 2019) into 'offshore' locations. But the notion of offshore finance is difficult to define (Clark et al., 2015), is often entangled with 'onshore' finance, and as such several geographers have argued that it may be more accurate to think of these firms as embedded in global financial networks (Clark et al., 2015; Coe et al., 2014; Haberly & Wojcik, 2022).

There is, however, a significant lack of research on the nature of the political economy of the crypto sector as it has become more entangled with centralised platforms, incumbent TradFi firms, and ultimately states. To be more specific, to date there has been very little critical social scientific research on the relationship between states and firms that mediate cryptocurrencies (although see Campbell-Verduyn, 2025; Kellerman & Seddon, 2024). Part of the reason for this is that while blockchains entail new kinds of monetary, and increasingly *financial* infrastructures, cryptocurrencies have not *yet* become part of the interconnected, state-sponsored, securitised, global financial infrastructure (see Hall, 2023; Westermeier, 2019; Muellerleile, 2025a). Keeping cryptocurrencies relatively decentralised and disconnected from state-backed financial infrastructure is good news for those who argue that it could introduce new systemic risk (Allen, 2023). But more concrete studies of how these intersections are playing out are important given that one strategy of crypto firms is to 'crack' existing financial value chains and take advantage of 'regulatory voids' where blockchain-fuelled financial instruments and mechanisms produce opportunities for regulatory arbitrage (Zook & Grote, 2020).

In other words, there is very little existing research on how cryptocurrencies are changing what geographers and others have called the state-finance nexus (Harvey, 2010; see Lai, 2023 for a recent review) and particularly the role of financial law and regulation in that nexus (Potts, 2021). Money, banking and financial markets have been integral to the development of the nation-state in the age of capitalism (Vogl, 2017), including its territorial constitution (Agnew, 2005). In regulating finance then, states are faced with the contradiction of encouraging the circulation of liquid money and capital, but at the same time maintaining stability by preventing breakdown and crisis (Dorry, 2017; Muellerleile, 2025a). A similar dynamic applies to the regulation of FinTech (Langley & Leyshon, 2023). Of course, states also sometimes fail to protect the capitalist economy from the worst excesses of financial circulation, most notably during the GFC (Engelen et al., 2011). In the face of that latter crisis, rather than a wholesale rethink, at least the Atlanticist states have largely relied on a technocratic-elitist approach to reform (Christophers, 2016). Given the close proximity between regulators and financial elites demonstrated by Young et al. (2022), we should not be surprised if the kind of regulatory capture by financial elites that was pronounced prior to the GFC (Baker, 2010) takes a similar form as states attempt to negotiate blockchain-based innovations. This is not to suggest, however,

that cooperation between regulators and financial innovators is (only) driven by cynical self-interest. To again return to the regulation of FinTech, while it manifests in variegated policy, most governments and regulators are keenly aware of the importance of financial innovation for national competitiveness and economic development (Langley & Leyshon, 2023). In light of this, the imperative to 'onshore' crypto in the US has taken on greater importance recently as part of more active and explicit role of the US state in international capitalist competition (Alami & Dixon, 2024).

3. Disconnection and friction in early crypto markets

Bitcoin briefly rose above US$$1000 for the first time in early 2014, but shortly thereafter Mt. Gox, the best known of the early centralised crypto exchanges, collapsed and dragged the value of bitcoin down with it (see Popper, 2015). It would not return to the thousand-dollar level again for almost 3 years. In the meantime, other more robust custodians/exchanges like BitMex, Binance, Kraken and Coinbase emerged as early intermediators of bitcoin. But despite blockchain technology attracting modest attention from the conventional finance sector (Maurer, 2016; Rella, 2019; Swartz, 2017), bitcoin was mostly not taken seriously as an alternative money form, let alone as the basis of a different kind of financial infrastructure (Zook & Blankenship, 2018). Crypto exchanges struggled to expand rapidly because governments around the world, including in the US, suspected that cryptocurrency was widely being used to launder money (Campbell-Verduyn, 2018). Banks that dealt with them became vulnerable to increased and unwelcomed regulatory surveillance. Furthermore, as several of my interviews discussed, there was a general mismatch between cryptocurrencies, the firms that dealt with cryptocurrencies, and existing financial regulations (see also Kellerman & Seddon, 2024). I will return to this below, but suffice it to say that exchanges were operating in regulatory limbo, and to some extent their descendants still are.

Nevertheless, during 2017 bitcoin exploded in price, rising to US$$20K by the end of the year. Crypto industry players often describe 2017 and 2018 as a frenzied period when all sorts of new crypto-related products were developed (cf. Zook & Grote, 2020). Much of this was related to the creation of Ethereum in 2015, part of which is a blockchain infrastructure upon which other cryptocurrencies can be mined and exchanged (Caliskan, 2020, pp. 124–125). This was also a moment when the conventional finance sector began to pay much closer attention to cryptocurrencies. Most important amongst these developments were the first US-based, regulated and centralised futures or *derivatives contracts* on bitcoin. The Chicago Board Options Exchange was first, and the Chicago Mercantile Exchange came quickly after, both in December of 2017 (Baur & Dimpfl, 2019). The launch of these contracts was important because they allowed institutions to manage the risk of price movements in bitcoin in the same way they could for foreign currencies, equity indexes, or commodities such as grain.

In the US this was the first significant move towards the integration of cryptocurrencies with the conventional financial system, but even then, crypto was still largely outside of the financial regulatory structure. Even 15 months later, in March of 2019, during a panel discussion at the annual US derivatives industry conference about the future of crypto, there was consensus that, despite progress, crypto was still in regulatory limbo. Adam White, the chief operating officer of the crypto subsidiary of Intercontinental Exchange (ICE), which owns the New York Stock Exchange, explained some of the challenges of developing a cryptofinance ecosystem:

> … the only way to getting that core infrastructure in place is by helping develop regulatory clarity. And we're in an environment right now, where you have four different regulators classifying cryptocurrencies as four different things. The CFTC is calling it a *commodity*. You've got the SEC calling some crypto a *security*. And then you have the IRS which is under Treasury [Treasury Department] calling it *property* … You also have FinCen, under Treasury, looking at it like a *currency*.[3]

This was just about the same time (early 2019) that Sam Bankman-Fried and his colleagues were beginning to build their own trading platform. That platform would become FTX, but a bit of background is helpful to understand the evolution of the firm.

After Bankman-Fried graduated from MIT with a degree in physics in 2014 he went to work as a financial trader for the Wall Street firm, Jane Street. After several successful years trading, and driven by his

philanthropic desire to earn more so he could give it away to 'effective' causes,[4] he quit in 2017 and moved to the Bay Area, not far from Stanford where he grew up.

Knowing little about cryptocurrency but being exposed to the Silicon Valley buzz surrounding it in 2017, it did not take him long to notice what some referred to as the 'kimchi premium' or the tendency for bitcoins to trade at a premium of up to 10% in several Asian markets compared to Europe and North America. Having been schooled in the art of arbitrage at Jane Street, he started trying to work out how to take advantage of this seeming discrepancy (Fisher, 2022). Buying bitcoin on one exchange in the US and simultaneously selling it higher on another in Asia was relatively straightforward, but moving the money around the world to settle the various trades was complicated, costly, and to any banking compliance officer or regulator that noticed, looked like a money laundering scheme. In a June 2021 interview, Bankman-Fried reflected on that period and the lack of liquidity and a 'solid infrastructure'[5] on which to trade and settle cryptocurrency at the scale he hoped to. His biggest problem related to opening bank accounts in countries where crypto exchanges could send or receive US dollars in any significant volume, and then sending those dollars (or other national currencies) to banks and crypto exchanges in other countries. There was also a temporal mismatch between the 24/7 crypto market and conventional banker's hours. There was, in other words, a great deal of what in the same interview Bankman-Fried called 'friction' in the off-blockchain, or secondary markets for bitcoin.

Nevertheless, through a trial-and-error process of navigating the relatively disconnected global cryptocurrency markets, and the complexities of cross-border banking (Rella, 2019), Bankman-Fried did eventually find a way to settle the arbitrage trades for a small profit. Convinced he could scale up the size and frequency of these trades, he began raising capital from investors and he recruited between 15 and 20 other effective altruists to join him,[6] most of whom had little if any experience with finance or cryptocurrency, but all of whom were dedicated to 'earning to give' (Fisher, 2022; Lewis, 2023). The result was a small hedge fund called Alameda Research,[7] located in a crowded apartment in downtown Berkeley, California and named as such to avoid raising red flags with banks who might have been hesitant to do business with a crypto trading firm. Over the next year or so the Berkeley-based staff, along with several lawyers and bank runners scattered around Japan and South Korea, streamlined their trading and settlement process, and as a result earned millions of dollars.

But with new price discovery devices like derivatives trades emerging and increasingly more secondary exchanges operating, the global cryptocurrency marketplace became more 'efficient' or liquid, and arbitrage became less profitable. By 2019 Bankman-Fried and his colleagues had different ideas. They began building their own centralised trading platform or exchange, to service crypto trading for others, but also to build crypto derivatives markets, cross-collateralise speculative trading and eventually to trade tokenised versions of conventional financial instruments like stocks. In other words, they were building a cryptofinance platform and firm. But given the uncertain, if not inhospitable, regulatory environment in the US, Bankman-Fried decided it would be easier to carry this out this from Hong Kong, which among other things was closer to China, where interest in crypto was stronger than in the US.

4. Regulation and centralisation

Even though a full analysis of financial regulation in relation to cryptocurrency is beyond the scope of this paper, to understand Bankman-Fried's next strategic moves, I must make a short detour into regulatory technicalities. As several of my interviewees explained, the wide variety of crypto tokens, combined with regulatory complexity in the US, resulted in a great deal of confusion within the industry, and some of this relates to disagreement over the nature of the decentralisation of various crypto markets. This debate over decentralisation matters because it is entangled with the ways that blockchain-based instruments like bitcoin were increasingly mediated, and thus to some extent centralised, by for-profit exchanges.

The regulatory uncertainty referred to above is partly a result of a lack of clear juridical 'coding' (see Pistor, 2019) of cryptocurrencies in US law. As a result, there was a lack of 'legibility' between the state and the crypto markets – neither could clearly *see* the other (Kellerman & Seddon, 2024). Another mismatch is that, at least in the case of bitcoin and other public blockchain tokens, there is not necessarily any mediating firm or bureaucracy for regulators to deal with. As Commissioner Hester Peirce of the Securities and Exchange Commission said to me in July of 2022, 'from a regulatory standpoint we're used to dealing

with intermediaries, and in a truly decentralised protocol, there is not an intermediary. And that's something that we have to grapple with'. Furthermore, as the exchange official Adam White indicated above, the uncertainty is exacerbated by a fragmented system of regulatory agencies. There are several federal agencies involved in the regulation of cryptocurrencies, and because they have frequently disagreed in their assessment of the nature and value of different crypto instruments, their regulatory treatment has also differed, sometimes with counterproductive results (Campbell-Verduyn, 2025). But there are important historical reasons why these agencies differ in their approaches to crypto.

The two most important agencies involved are the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC). In general, the SEC regulates *securities* exchanges (e.g., equity and bond markets), and the CFTC regulates *derivatives* and *swaps* exchanges. Interestingly, in many cases, neither the CFTC nor any other federal agency directly regulates the spot 'commodity' markets that underlie the derivatives markets, in large part because the markets for things like grain, oil, meat and other bulk or raw materials are spatially and organisationally decentralised. This is not the case for *financial derivatives*, where the underlying instruments are often considered securities, traded on centralised exchanges and regulated by the SEC. Perhaps not surprisingly, these two agencies have battled over their jurisdictions since the emergence of financial derivatives in the 1970s (see Muellerleile, 2015).

One way to understand the regulatory clash over cryptocurrencies comes down to whether in the eyes of the regulators, control over the underlying blockchain is sufficiently decentralised to be defined as a commodity (Hinman, 2018). If control is *not* sufficiently decentralised, or in other words, if a group of individuals or another centralised entity has the capacity to manipulate the nature or value of a crypto token, they would be deemed a 'security'[8] and both the centralised institution (e.g., a firm) and the exchanges where they are traded would need to register with the SEC and publish standardised public information about the ownership, structure, practices and finances of the institution.

With the exception of bitcoin, in the US there is little consensus how cryptocurrencies should be categorised, and unless and until the US Congress clarifies the law, there will likely be regulatory uncertainty. This said, the CFTC has declared bitcoin and a few other crypto tokens to be commodities, because it is assumed that, like gold or wheat, no person or coordinated group has the capacity to change their basic characteristics or value.[9] But prior to the second Trump Administration the SEC repeatedly warned that pretty much every other crypto token was sufficiently centralised to be subject to securities laws, and it has been aggressive in prosecuting crypto exchange platforms for illegally offering exchange of these 'securities' without proper registration. Both crypto entrepreneurs, and in particular the exchanges that profit from trading crypto tokens, protest that they cannot register most cryptocurrencies with the SEC because even where there is a firm behind a particular crypto token, the properties of the token do not fit into SEC categories.

Complicating matters, while both agencies claim to support technological innovation in financial markets, the CFTC is widely considered to be more pro-innovation than the SEC, if not generally more friendly with the crypto industry. During the early 2020s a consensus developed in the crypto industry that if and when it is formally regulated by the federal government, it would prefer the CFTC to be that regulator. Whilst hesitant to go on the record, several of my interviewees suggested this was the case. Even if the CFTC had prosecuted several crypto firms for illegally establishing crypto futures markets,[10] it had also allowed several US firms to establish futures and other derivatives markets on bitcoin and ether, including a small start-up exchange called LedgerX.

Differences in personalities at the two agencies also matter. There are many examples, but I will mention just two. The chairperson of the SEC during the Biden administration, Gary Gensler, was an outspoken critic of crypto and became a bugbear of the industry. To the delight of crypto enthusiasts, Donald Trump repeatedly promised to immediately fire him if he was re-elected, and Gensler resigned on the day of Trump's second inauguration. On the other hand, the chairman of the CFTC from 2017 to 2019, Christopher Giancarlo, who in 2022 published an autobiographical book titled *CryptoDad* (Giancarlo, 2022), was publicly supportive of the industry. He established a new role at the CFTC of chief innovation officer, as well as a new regulatory sandbox focused on FinTech and crypto called 'LabCFTC' (Giancarlo, 2022, p. 110).

It is perhaps no surprise then that when Bankman-Fried began to spend considerable time in Washington, DC in 2021, in addition to lobbying elected politicians, he concentrated his efforts to influence financial regulation on the CFTC.

5. Re-intermediating clearing

FTX was founded in 2019 in Hong Kong and registered as a corporation in Antigua. Bankman-Fried and his Alameda Research colleague and long-time friend Gary Wang, who was widely considered to be a coding prodigy, began building a new, state of the art online exchange, trading platform and customer interface. The innovation of Wang's new platform was directly related to its capacity to handle crypto derivative trading. Because derivative trades tend to be highly leveraged and thus risky, exchanges must take care to manage that risk. In essence, exchanges must have a way to either demand collateral or quickly liquidate customer positions when markets turn against a customer's positions. In Lewis's (2023) telling, Wang was the first programmer in the crypto industry to successfully design a 'risk engine' that could automatically liquidate customer positions when they began to pose a risk to the exchange, and competitors like Binance quickly found ways to emulate Wang's system.

During 2020 FTX began attracting more serious capital investment, including raising funds by selling its own blockchain-based token called FTT, holders of which received a discount on trading fees on the platform. But even as it began to attract more customers, the firm did not induce serious attention by the financial press until early 2021.[11] That summer, however, just as FTX was becoming a major player in the crypto industry, Hong Kong, China, South Korea and other Asian countries began to crack down on crypto trading and crypto payments, as well as crypto mining. As a result, Bankman-Fried began considering another relocation (Chan, 2021). As he said in an interview in June of 2021, 'What we've been doing also is reaching out to try and find governments that would be really excited to have us and work with us' (Chan, 2021). He chose the Bahamas, a crypto-friendly offshore financial centre, but one much closer to the US, and in particular very close to Miami, Florida, which was explicitly courting crypto capital (Wakefield et al., 2023).

Around the same time FTX embarked upon an expensive marketing campaign, hiring Hollywood celebrities and athletes to make endorsements. It also signed contracts to brand professional sports uniforms and bought the naming rights to the Miami Heat basketball arena. The campaign culminated with an NFL Superbowl television advertisement in February of 2022 starring the comedian Larry David. The commercial ended by referring to FTX as a 'safe and easy way to get into crypto'. But while US customers could hold their tokens on FTX's US subsidiary and make basic trades, they were prohibited by US regulators from using the more innovative products on FTX's 'global' platform, especially leveraged derivative instruments.

Meanwhile in Washington, DC federal financial regulators were becoming increasingly worried that some cryptocurrency firms were emulating banking and financial investment, but without following banking and financial law. At the same time, as the industry grew rapidly, more politicians, regulators and crypto boosters began to argue that regulatory confusion was driving or keeping blockchain-based financial innovation offshore and potentially damaging the US's competitiveness. Bankman-Fried echoed this in written Congressional testimony in February of 2022 saying 'these [regulatory] gaps have discouraged participation by many in the US digital-assets markets … the vast majority of trading volumes in digital-assets markets takes place on non-US platforms, even though much of the human and intellectual capital driving the industry comes from US persons … ' (Bankman-Fried, 2022).

In late 2021 FTX hired a former CFTC commissioner and several other high-level staffers to advise and lobby for them in Washington, DC (Newmyer & Whoriskey, 2022). Rather than the more combative approach to government that was common in the crypto industry, Bankman-Fried followed the playbook used by conventional finance, which was to lobby to shape the rules and regulatory environment in their favour. FTX's venture capital (VC) investors evidently appreciated his approach. Michelle Baihle of the Silicon Valley VC firm Sequoia Capital, who invested US$$250 million in FTX in 2021, explained it this way:

> Of the exchanges that we had met and looked at, some of them had regulatory issues, some of them were already public … And then there was Sam … he is committed to making the right chess moves for FTX to eventually be able to legally do everything they want to do in the US, not by asking forgiveness, but by asking permission. (Fisher, 2022)[12]

Meanwhile FTX had developed into a fully-fledged financial services ecosystem, but only for non-US or 'offshore' customers. In addition to trading actual crypto tokens, they borrowed and lent crypto tokens, facilitated trading in crypto derivatives, non-fungible tokens, foreign currencies and tokenised or fractionalised corporate shares. They also hosted a prediction 'event' market for speculating on things like

democratic elections. They had a sizeable institutional clientele and charged a fraction of the fees compared to their main US-based competitor, Coinbase. Like many other crypto exchanges, but unlike most of conventional finance, FTX allowed 24/7 trading. Comparing FTX to conventional share exchanges, Bankman-Fried boasted that FTX was 'unconstrained'. He said, 'You can buy Apple at 2 AM Eastern time … .you can use Apple for collateral for Ether, or Tesla as collateral for bitcoin … or whatever combination you want, we cross margin everything'.[13]

However, the FTX innovation that most threatened incumbent finance was its algorithmic 'risk engine' and associated model of clearing. Even though it was designed to manage the risks of facilitating cryptocurrency derivative trading, the technical innovation had little to do with cryptocurrency or blockchain. Rather it was a case of FinTech dis- and re-intermediation and the resulting efficiency gains that potentially lent it a competitive advantage. I will explain below, but similar to leveraged crypto derivatives trading, US regulators would *not* sanction the use of the 'risk engine' with US customers. As a result, a significant part of the platform FTX built for its global operation was closed to US investors.

FTX's temporary solution was to buy an already licensed and regulated US derivatives exchange called LedgerX, which became 'FTX US'. This US subsidiary provided a similar user interface to the global FTX platform, but the crucial difference was that it did not allow users to leverage or 'margin' their derivatives positions.[14] Without leverage, derivatives are less attractive instruments, so LedgerX did not compete in any significant way with the more conventional, and more liquid, Chicago-based crypto futures contracts mentioned earlier. But directly competing with the TradFi firms like the CME Group may have been less important to FTX, at least in the short term, than the legitimacy that the status of a 'fully regulated' exchange offered. Several of my interviewees in 2022 discussed the raft of 'offshore' crypto firms buying up small, licensed US derivatives exchanges. For instance, a former CFTC commissioner I interviewed in 2022 said, ' … crypto exchanges are buying regulated futures markets in order to have a venue and an on ramp into regulated markets'.

The longer-term solution for FTX, and the one that drew the most attention of both the incumbent financial sector as well as the SEC and CFTC, was to apply to the CFTC to allow FTX to run its disintermediated trading, margining, risk management and clearing model for domestic US customers (see Nathanson, 2023).[15] Historically in US futures and derivatives markets, customers place orders with intermediary brokers or futures commission merchants (FCMs), who are usually members of a centralised exchange, where the FCMs then execute a trade on the customer's behalf. Furthermore, these centralized exchanges typically use a clearing house as the central counterparty to every trade. Daily, FCMs ensure customers have sufficient collateral deposited, and in the case of a default when the customer cannot pay, the FCM is liable to cover the loss. If the FCM could not cover the loss, the rest of the members of the exchange and clearinghouse would be required to mutualise the losses. The financial industry calls this distribution of risk a 'cascade', and even though it is coordinated centrally, the risk itself is distributed across a network of different actors. One might reasonably call this a 'decentralised' system of risk management compared to the centralisation of risk inside of one platform firm.

But being a digital platform-based exchange, designed specifically for the purpose of engaging directly with trading customers, FTX had little reason to work with 'middlemen' like FCMs in the trading process. In terms of risk management, rather than distribute risk, it relied on speed and algorithmic sophistication. FTX's risk engine monitored all leveraged positions, whether 'spot' or derivative, marking to market on a 30-second cycle. When markets moved, positions that exceeded allowable leverage were automatically liquidated, so that, at least in principle, no position could ever become overleveraged to a point that it threatened the solvency of FTX. This is the system that fuelled FTX's competitive advantage in the global crypto market, and in December of 2021 it formally applied to the CFTC to operationalise this 'disintermediated clearing' system in the US for crypto-based products.

FTX's proposal was immediately controversial in the US derivatives industry. The CFTC received 1500 formal comment letters from industry participants including every significant industry player with many of the incumbent firms expressing scepticism. Bankman-Fried was asked to testify on his proposal before the Agriculture Committee of the US House along with the chief executives of several of the US's largest derivatives exchanges. During that testimony, Terry Duffy, the CEO of the world's largest derivatives exchange consortium and parent firm, the Chicago-based CME Group, argued that FTX's was making 'false claims of innovation that are little more than cost cutting measures' and he accused FTX of attempting to 'import

… its offshore practices from low regulatory jurisdictions'.[16] As he had suggested in other fora, Bankman-Fried told the Committee that the crypto or digital asset sector was in need of federal regulation.

Several days after the Congressional hearing, the CFTC convened an extraordinary[17] day-long meeting or 'roundtable' discussion at the CFTC offices in Washington, DC on 25 May 2022 including all five of the CFTC commissioners, other CFTC staffers, exchange officials, clearinghouse officials, academics, derivatives lawyers and, of course, Bankman-Fried. The assembled group debated the merits of the proposal and peppered Bankman-Fried with questions, all of which he willingly answered.[18] There is no way to summarise the wide-ranging discussion, but there seemed to be general acceptance that despite the possibility of exacerbating volatility in an unstable market, automated liquidation or disintermediated clearing was a serious and significant innovation and competitive threat to the incumbent system of brokers, exchanges and clearinghouses. There was also considerable worry that despite Bankman-Fried claiming otherwise, the model could and would be applied beyond crypto to all other futures, derivatives and asset classes and as such was a FinTech-based threat to much of the US derivatives industry.

Six months later, FTX was bankrupt. The CFTC had yet to decide whether to allow disintermediated clearing in the US. The causes of the bankruptcy are complicated and there is little space to explain it here (see Lewis, 2023), but it was largely a result of FTX's failure to segregate customer funds from its own highly leveraged investments, which were hidden within the still existing subsidiary hedge fund Alameda Research. As the SEC explained in its lawsuit against the firm,[19] FTX evidently built an exception into its algorithmic risk engine so that overleveraged positions at Alameda would not be automatically liquidated the way they would have been for any other customer. When the proverbial 'run on the bank' began in the autumn of 2022 Alameda could not pay its debts to FTX, and it all collapsed in November.

But before moving on there is one final twist in this tale. In August of 2022, the CME Group, whose chairman had strongly criticised the FTX disintermediated clearing model in public and before Congress, applied to the CFTC with a similar proposal to eliminate derivatives brokers and deal directly with end customers. It may have been a pre-emptive move to compete with FTX if the latter's proposal was approved, but whatever the motivation, the consensus in the financial press was that the CME Group was following FTX's lead down the path towards FinTech-powered disintermediated trading and clearing (see, for instance, Osipovich, 2022). The application was approved by the CFTC in October of 2024, but it is not yet clear whether or how the CME plans to implement it. What is clear is that FTX, in several offshore environments not subject to US regulatory oversight, developed a method to eliminate time and expense from a crucial part of the exchange process, and it drew the attention of incumbent US finance.

6. Crypto-state nexus: a new era of cryptofinance?

Five days after FTX declared bankruptcy, Bankman-Fried, who was deposed as CEO and in effect unemployed, gave an extended, instant message interview to a *Vox* reporter. When asked about his efforts to shape US financial regulation he replied, 'fuck regulators, they make everything worse' and went on to suggest that state intervention in financial markets – or seemingly anything – was futile (Piper, 2022). It would be a mistake to draw definitive conclusions from this outburst, but it does reveal a tension in the political economy of the emergent cryptofinance sector.

On one hand, the ideological force behind cryptocurrency is deeply libertarian and anti-corporate, including a deep distrust of conventional banks and financial firms. Simply put, distrust of the state-finance nexus still animates the political economy of the crypto sector. But on the other hand, as cryptocurrency has evolved into cryptofinance, the large corporate exchanges that mediate the underlying blockchain have realised they need to shape state regulation if they want to compete with incumbent US finance for the banking deposits and investment capital of US customers.

But this seeming contradiction looks different when considered from the perspective of the US state. If cryptofinance represents serious FinTech innovation, it is important to ask in what ways the US capitalist state needs a successful crypto sector. This question is even more important, if not more difficult to answer, in light of the re-election of President Trump and his newfound support for cryptocurrencies. In this final section of the paper I synthesise the findings with some of the more conceptual ideas presented in Section 2. In this I explore how the case of FTX sheds light on the contradictory nature of the relationship between the state, incumbent finance and the crypto sector.

6.1. Lobbying (against) the state

FTX's lobbying set the stage for a flood of campaign contributions. After a lull in activity following the FTX collapse,[20] the crypto industry went on to spend more money on the 2024 US federal election campaigns than any other corporate sector (Claypool, 2024). The largest single contributor was the centralised crypto exchange Coinbase that alone contributed over US$$50 million. Brian Armstrong, the CEO of Coinbase and a Silicon Valley mastermind, recently explained that the firm's goal is to 'increase economic freedom by growing the adoption of cryptocurrencies' and the way they will do it is to fight in federal elections (Armstrong, 2024).

One of the key beneficiaries of crypto campaign contributions in 2024 was President Trump, and soon after re-election he declared that the US would become the 'crypto capital of the world'.[21] Amongst other things, he has appointed crypto enthusiasts up and down his administration, including one as the new Chair of the SEC. Furthermore, leveraging his populist credentials, but also realising that he and his family can make money with it, Trump and his sons have started their own crypto token and crypto firm called World Liberty Financial. Perhaps not surprisingly, following Trump's re-election, there was newfound momentum in the US Congress to eliminate regulatory uncertainty. In Pistor's terms (2019) these are efforts to 'code' cryptocurrencies and related digital assets by redefining their legal definitions and assigning clear jurisdictional authority amongst the US regulatory agencies. With more than a handful of crypto entrepreneurs in the White House, the various conflicts of interest related to all of this deserve critical scrutiny, but there is no space for it here (see Muellerleile, 2025b). Regardless, there is more to the story than self-enrichment by politicians.

As the case of FTX shows, clearing up regulatory uncertainty requires US politicians' support. But this is not just a legal question. It is also a political economic struggle between the two 'organisational fields' represented by the Fin-Tech couple (Hendrikse et al., 2018). There is no question that Silicon Valley venture capital, let alone highly capitalised Big Tech firms like Apple, Meta and X, are keen to break into the financial field (Hendrikse et al., 2018). Cryptocurrency is one of the tools Silicon Valley capital has used to attempt to 'crack' the financial value chain (Zook & Grote, 2020), but while there has clearly been some success so far, the US state has largely stood in the way of the maturation of cryptofinance.

An illuminating example comes via Marc Andreessen, the founding partner of Silicon Valley-based Andreessen Horowitz (aka 'a16z'), one of the largest venture capital firms in the US. A16z was an early investor in Coinbase and Andreessen sits on the corporate board. In a January 2025 interview, Andreessen attributes Silicon Valley's recent embrace of the populist right in the US as a survival move to ward off the threat of government overreach under President Biden and the Democrats.

> … then they just came after crypto. Absolutely tried to kill us. […] That's really when we knew that we had to really get involved in politics. […] So we saw this exercise of raw authoritarian administrative power levied against crypto. Basically we saw the beginnings of what we thought was going to be applied to A.I. (Douthat, 2025)

Whether the US state was 'authoritarian' under Biden in comparison to under Trump is interesting, but beside the point. More important is exactly what Andreessen is referring to. In the same part of the interview Andreessen mentions 'Wells notices' several times, which are warnings of imminent prosecution, issued by the SEC. While he does not specify individual cases, it is clear what he is referring to. In almost all cases, the SEC was *not* targeting the underlying blockchain networks or their users. Andreessen is not complaining about federal agents pursuing ransomware hackers or money launderers who anonymously trade cryptocurrency directly on the blockchain.[22] Rather, it was cryptocurrency *exchanges*, such as Coinbase, Kraken or Binance, and corporate entities like Ripple Labs, who the SEC accused of marketing or trading unregistered *securities*. In other words, *it was the intermediaries*, or the second-hand merchants collecting fees to exchange crypto tokens, that were the target, rather than the underlying networks. Another way to think about this is that cryptocurrency on the blockchain only became a serious threat to the state when it evolved into something resembling a financial operation with lending, collateral and derivatives. In lobbying the state, Andreessen, Armstrong and Bankman-Fried before them were trying to protect crypto financial capital, not some utopian dream of a decentralised monetary system. Rather their dream might be something like a *crypto-state nexus* where the interests of cryptofinance become one and the same as those of the state.

6.2. Crypto or FinTech?

In light of this, and as we can see with the case of FTX, the innovation that caused the greatest stir in the state-finance nexus was not directly related to cryptocurrency or blockchains per se. Rather it was to the potential of a FinTech-fuelled platform to dis- and re-intermediate processes related to financial exchange. FTX's risk engine and disintermediated clearing claimed to make exchange more efficient by replacing brokers and clearing-houses with an algorithmic operation and direct relationship with the exchange. Whether it was FTX the disruptor, or later the CME as incumbent (see Hendrikse et al., 2018), who made the convincing case for disintermediation, the CFTC has approved the idea for the US market. But while the risk engine was developed in an offshore crypto ecosystem, it was not designed to protect some kind of decentralised blockchain. Rather it was designed to protect and increase profits for a centralised firm facilitating and mediating complex financial operations, which, presumably is why the CME, the world's largest derivatives exchange consortium, has picked it up.

So while the underlying *blockchain technology* has resulted in several relatively novel applications such as initial coin offerings (Zook & Grote, 2020), it is worth asking what kind of innovation *cryptofinance* represents. Put differently, in terms of technological innovation, is cryptofinance *in toto* just another version of FinTech dis- and re-intermediation, and if so is it unfolding in a way similar to previous cases of the intersections of digital technology with finance? In the case of FTX's disintermediated clearing, this mostly appears to be true. It was a labour-saving solution for an existing process or, as Zook and Grote (2024, p. 6) said, the financial incumbents innovations emanating from crypto ecosystems are 'primarily a business opportunity … a more efficient version of the established system with higher profits for themselves'. This would follow the findings of much of the literature on FinTech, which suggests that while digital technologies do disrupt the organisational structure of financial firms, for the most part it has not displaced incumbent financial firms from their privileged position (Haberly et al., 2019; Hendrikse et al., 2018). Part of the reason is that incumbent financial firms tend to be locked into strong relationships with states, which also tends to result in protection from existential threats caused by financial crisis.

There is, however, one difference between FinTech innovations that emanate from cryptofinance and those that emanate from incumbent financial firms, which is that in the current historical moment, crypto boosters have been very successful at framing their innovations as somehow inherently 'decentralised' and libertarian-populist, if not anarcho-capitalist (see Smith & Burrows, 2021). President Trump's son Eric, for instance, is not shy about arguing that conventional banks are corrupt, beholden to the liberal state, and soon to be 'irrelevant' in the face of crypto innovations.[23] But the rhetoric of decentralisation masks efforts to embed FinTech based cryptocurrency banking in state regulatory structures. It seems that the libertarian politics of decentralisation may prove to be the key that unlocks the door to the state-finance nexus.

6.3. Too big to fail cryptofinance?

While the collapse of FTX was dramatic, and an embarrassment for those who had embraced Bankman-Fried, the bankruptcy had little to no effect on US or global financial stability. The main reason is that cryptofinance was still largely disconnected from the state-securitised, too big to fail, international financial infrastructure (see Westermeier, 2019). This is gradually changing with, for instance, more firms and pension funds investing in bitcoin, but in 2022 there was a great deal of legal-regulatory uncertainty surrounding both cryptocurrency and cryptofinance, and incumbent financial firms were still very hesitant to invest directly in cryptocurrencies. In 2025 this seems to be rapidly changing. If the legal re-coding process for cryptofinance currently playing out in the US Congress is successful, and in particular if the SEC begins to regulate *with* rather than *against* crypto platforms (see Langley & Leyshon, 2023), the integration between 'DeFi' and 'TradFi' will likely hasten. The risk is that when the next cryptofinance exchange collapses, it may be sufficiently well connected to the broader US financial infrastructure to be deemed by the state as too big to fail and thus set up for a taxpayer bailout.

This said, there is no pre-determined outcome for the relationship between the crypto sector, incumbent finance and the state. Even with the current pro-crypto US administration, there is significant resistance in the US Congress to the overly hasty legal encoding of 'digital assets' into the legal structures of the financial status quo (Goodman et al., 2025). Furthermore, for those who have the technical wherewithal and sufficient

'trust in the code' to exchange and hold crypto tokens directly on blockchains, cryptofinance intermediaries like Coinbase and Binance, as well as the state regulators that attempt to manage them, are redundant institutions. In other words, anti-statism is more than just cynical cosplay for self-interested entrepreneurs using state power to further their own crypto interests. Blockchain structures also continue to be used to evade paying taxes, avoid international financial sanctions, or to conduct exchange in relative privacy outside the gaze of corporate and state surveillance. The potential still exists, in other words, for the construction of alternative, relatively decentralised, financial infrastructures, with little dependence on state institutions (cf. Bryan, 2024). This vision is closer to Nakamoto's (2008) original imagination of the potential of bitcoin, and there are still many in the crypto movement in favour of using this kind of infrastructure to undermine the dominance of the emergent crypto-state nexus.

Notes

1. Bankman-Fried was found guilty of several kinds of fraud and conspiracy to commit money laundering. https://www.justice.gov/opa/pr/samuel-bankman-fried-sentenced-25-years-his-orchestration-multiple-fraudulent-schemes.
2. There are several ways cryptocurrency users can hold their tokens, ownership of which is proven with a private 'key' or password, which can extend to hundreds of alpha numeric characters. For users who are uncomfortable keeping track of their own keys, or do not want to deal directly with decentralised blockchain technology, most cryptocurrency exchanges offer custody services. They will hold your keys, and thus your tokens, on your behalf and you can gain access to them by proving your identity in ways similar to more centralised financial institutions. Through this, they blur the lines between exchanges and custodians, which are typically separate institutional functions in conventional finance (see Caliskan, 2020).
3. Panel discussion at the Futures Industry Association's annual conference in Florida titled 'Cryptocurrencies and Derivatives: The Battle for Dominance', 14 March 2019. *Emphasis added*. Accessed here on 25 September 2024, at about minute 22: https://www.youtube.com/watch?v=n2-2nww_V18.
4. SBF studied physics at MIT where he was exposed to the philanthropic philosophy of 'effective altruism'. Close scrutiny of this utilitarian social justice movement, popular amongst many Silicon Valley influencers, is beyond the scope of this paper, but it did become the driving force for SBF and the rest of the core management team at FTX (cf. Fisher, 2022; Lewis, 2023). Their goal was to 'earn to give' to good causes although only causes that could plausibly model their method of improving the world. The reason I mention this is because even if the ultimate *end* of FTX was to change the world for the better (the firm and its employees did give millions to various charities and causes), the *means* was the same as most other capitalist firms: accumulate as much money as possible, if only to give it away later.
5. SBF makes several references to the lack of infrastructure as he explains how he and his colleagues executed the arbitrage in this interview from June of 2021, especially between minutes 6 and 18. 'Building an Arbitrage Infrastructure for Traders', Sam Bankman-Fried interviewed by Ash Bennington of Real Vision Crypto. Accessed here on 24 September 2024: https://www.youtube.com/watch?v=YLCnGXawUj0.
6. Nishad Singh, an early joiner in Berkeley and FTX's chief engineer said 'All the employees, all the funding—everything was EA to start with' (Fisher, 2022).
7. The archived 'About' webpage from Alameda Research says the firm was founded in October of 2017. Accessed here on 25 September 2024: https://web.archive.org/web/20220120212239/https://www.alameda-research.com/.
8. The definition of a 'security' in US law is not straightforward, but in essence the question is whether the instrument in question is an 'investment contract', which was defined in a 1946 Supreme Court case as 'investment of money in a common enterprise with a reasonable expectation of profits to be derived from the efforts of others'. In the US 'commodities' are not considered investment contracts because (presumably) the use value or qualities of things like grains, meats and oil, and perhaps bitcoin, cannot be changed by any centralised entity once they have been produced, even if their prices fluctuate in various markets. The value of a corporate share on the other hand can fluctuate greatly based on the efforts of corporate managers, etc … , so they are considered investment contracts or securities. See Hinman (2018) for a brief overview vis a vis cryptocurrencies. A much more thorough discussion can be found in Cohen et al. (2022).
9. Several law firms regularly publish briefs explaining the regulatory landscape for cryptocurrencies. One example of a helpful primer, by K&L Gates, dated 6 May 2022 can be found here (accessed on 29 October 2024): https://www.klgates.com/CFTC-and-SEC-Perspectives-on-Cryptocurrency-and-Digital-Assets-Volume-I-A-Jurisdictional-Overview-5-6-2022.
10. Between 2018 and 2022 the CFTC prosecuted several US based exchanges and exchanges that serviced US customers for in-effect operating crypto derivatives exchanges. For instance, the CFTC fined Seychelles based BitMex US$$100 million in 2021 for allowing US customers to trade leveraged derivatives on bitcoin and other cryptocurrencies. See CFTC press release 8412-21, dated 10 August 2021. Accessed here on 27 September 2024: https://www.ft.com/content/f9309964-7640-40ec-afa2-4c493131246f.

11. As a proxy for this I ran archival searches on the *Financial Times* and *The Wall Street Journal* for 'FTX' and 'Bankman-Fried'. While there were several mentions in the WSJ in October of 2020 of SBF's sizable cash contributions to Joe Biden's presidential campaign, there were no significant engagements with SBF or his firm until April of 2021 in the WSJ, and July of 2021 in the FT.
12. Sequoia Capital commissioned and published this extensive article in 2022, but apparently embarrassed by the collapse, it removed it from their web pages when FTX went bankrupt. It can, however, still be found: Accessed here on 23 September 2024: https://archive.ph/qFJJN.
13. 'Building an Arbitrage Infrastructure for Traders', Sam Bankman-Fried interviewed by Ash Bennington of Real Vision Crypto. Between minutes 30 and 32. Accessed here on 24 September 2024: https://www.youtube.com/watch?v=YLCnGXawUj0.
14. Because LedgerX only offered fully collateralised derivatives, it was exempted from some of the CFTC's risk management rules that normally govern exchanges and clearinghouses. These exemptions are explained in detail in CFTC Division of Clearing and Risk Letter 17–35, dated 24 July 2017 and related to LedgerX's application to become a licensed Derivatives Clearing Organization (DCO). Accessed here on 27 September 2024: https://www.cftc.gov/sites/default/files/idc/groups/public/@lrlettergeneral/documents/letter/17-35.pdf.
15. The CFTC published a summary of FTX's proposal, available here (accessed 23 October 2024): https://www.cftc.gov/media/7031/CommentFTXAmendedOrder/download.
16. 'Changing Market Roles: The FTX Proposal and Trends in New Clearinghouse Models', hearing before the US House of Representatives Agriculture Committee, 12 May 2022, Duffy's comments are between minutes 20 and 25 of the recording of the hearing here (accessed 25 September 2024): https://www.youtube.com/watch?v=9yBuGeL7zbo.
17. I do not have definitive evidence, but it appears very rare that the CFTC would host an event like this. A search of the CFTC's events list by 'roundtable', which is one of their own event categories, lists only one other after 2016. Prior to this, they seem to have happened more regularly. The CFTC's events page is here (accessed 23 October 2024): https://www.cftc.gov/PressRoom/Events.
18. There is a recording of the meeting here: https://www.youtube.com/watch?v=s7oN3qMBAP0; And a transcript of the meeting here: https://www.cftc.gov/sites/default/files/2022/07/1658159363/transcript052522.pdf.
19. Securities and Exchange Commission vs. Sam Bankman-Fried, Civil Action No. 22-cv-10501, United States District Court, Southern District of New York, accessed here on 4 July 2025: https://www.sec.gov/files/litigation/complaints/2022/comp-pr2022-219.pdf.
20. 'FTX Collapse Sets Back Crypto Agenda in Washington', *Wall Street Journal* online, 14 November 2022, accessed here on 30 October 2024: https://www.wsj.com/articles/ftx-collapse-sets-back-crypto-agenda-in-washington-11668434402.
21. https://www.whitehouse.gov/fact-sheets/2025/03/fact-sheet-president-donald-j-trump-establishes-the-strategic-bitcoin-reserve-and-u-s-digital-asset-stockpile/.
22. Andreessen does mention the 'debanking' of crypto firm executives, which is likely a reference to the conspiracy theory called 'Operation Chokepoint 2.0', which alleges that federal financial regulators secretly instructed US banks to not do business with individuals employed in the crypto industry. Particularly after the collapse of FTX, federal regulators warned US banks of risks related to the crypto sector, and pursued criminal (e.g., money laundering) activity, at the time of writing there is no evidence of a conspiracy to debank individuals because they were employed in the crypto sector (Khalili, 2025).
23. Coindesk Spotlight Interview of Eric Trump, 22 October 2025: https://www.youtube.com/watch?v=OzFWlXdGzeM.

Acknowledgements

I am grateful to the British Academy (grant reference SRGSRG2021\210813) and to the Geography Department at Swansea University for funding the research included in this paper. I also thank Andrew Leyshon, Siwan Davies, Marcus Doel and two anonymous referees for helpful suggestions. I am nevertheless solely responsible for any mistakes or omissions.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

The British Academy (grant reference SRGSRG2021\210813) and the Geography Department at Swansea University funded the research included in this paper.

Ethics statement

The underlying research was subjected to ethical scrutiny and approved by the Ethics Committee of the Faculty of Science and Engineering at Swansea University in 2021.

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Data availability statement

According to the terms of written and oral consent granted by interviewees, interview data cannot be shared beyond the author.

References

Agnew, J. (2005). Sovereignty regimes: Territoriality and state authority in contemporary world politics. *Annals of the Association of American Geographers*, *95*(2), 437–461. https://doi.org/10.1111/j.1467-8306.2005.00468.x

Alami, I., & Dixon, A. (2024). *The spectre of state capitalism*. Oxford University Press.

Allen, H. (2023). Defi: Shadow banking 2.0? *William and Mary Law Review*, *64*(4).

Armstrong, B. (2024, June 3). How to get regulatory clarity for crypto. Blog on Coinbase webpages. Retrieved October 31, 2024, from https://www.coinbase.com/en-gb/blog/how-to-get-regulatory-clarity-for-crypto

Baker, A. (2010). Restraining regulatory capture? AngloAmerica, crisis politics and trajectories of change in global financial governance. *International Affairs*, *86*(3), 647–663. https://doi.org/10.1111/j.1468-2346.2010.00903.x

Bankman-Fried, S. (2022). *Testimony of Sam Bankman-Fried, Co-Founder and CEO of FTX*. Examining Digital Assets-Risks, Regulation, and Innovation, a Hearing before the U.S. Senate Committee on Agriculture, Nutrition, and Forestry, February 9, 2022. Retrieved October 23, 2024, from https://www.agriculture.senate.gov/imo/media/doc/Testimony_Bankman-Fried_0209202211.pdf

Baur, D., & Dimpfl, T. (2019). Price discovery in Bitcoin spot or futures? *Journal of Futures Markets*, *39*(7), 803–817. https://doi.org/10.1002/fut.22004

Bernards, N. (2022). Colonial financial infrastructures and Kenya's uneven fintech boom. *Antipode*, *54*(3), 708–728. https://doi.org/10.1111/anti.12810

Bryan, D. (2024). Functionalism, token economies, and money design. *b2o: boundary 2 online*. https://www.boundary2.org/2024/12/dick-bryan-functionalism-token-economies-and-money-design/

Caliskan, K. (2020). Platform works as stack economization: Cryptocurrency markets and exchanges in perspective. *Sociologica*, *14*(3), 115–142. https://doi.org/10.6092/issn.1971-8853/11746

Campbell-Verduyn, M. (2018). Bitcoin, crypto-coins, and global anti-money laundering governance. *Crime, Law and Social Change*, *69*(2), 283–305. https://doi.org/10.1007/s10611-017-9756-5

Campbell-Verduyn, M. (2025). Satoshi meets the state: Bad policy in uncle Sam's initial encounters with bitcoin and distributed ledger technology. In I. Roberge, H. McKeen-Edwards, & M. Campbell-Verduyn (Eds.), *Ineffective policies: Causes and consequences of bad policy choices* (pp. 67–82). Bristol University Press.

Chan, M. (2021, June 25). Hong Kong's 29-year-old cryptobillionaire: FTX's Sam Bankman-Fried. *Nikkei Asia* online. Retrieved October 30, 2024, from https://asia.nikkei.com/Business/Business-Spotlight/Hong-Kong-s-29-year-old-crypto-billionaire-FTX-s-Sam-Bankman-Fried

Christophers, B. (2016). Geographies of finance III: Regulation and 'after-crisis' financial futures. *Progress in Human Geography*, *40*(1), 138–148. https://doi.org/10.1177/0309132514564046

Clark, G., Lai, K. P. Y., & Wojcik, D. (2015). Editorial introduction to the special section: Deconstructing offshore finance. *Economic Geography*, *91*(3), 237–249. https://doi.org/10.1111/ecge.12098

Claypool, R. (2024). *Big crypto, big spending*. Public Citizen. Retrieved October 25, 2025, from https://www.citizen.org/article/big-crypto-big-spending-2024/

Coe, N. M., Lai, K. P. Y., & Wojcik, D. (2014). Integrating finance into global production networks. *Regional Studies*, *48*(5), 761–777. https://doi.org/10.1080/00343404.2014.886772

Cohen, L., Strong, G., Lewin, F., & Chen, S. (2022). The ineluctable modality of securities law: Why fungible crypto assets are not securities. Published by authors on SSRN. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4282385

Dodd, N. (2018). The social life of Bitcoin. *Theory, Culture & Society*, *35*(3), 35–56. https://doi.org/10.1177/0263276417746464

Dorry, S. (2017). Regulatory spaces in global finance. In J. Pollard & R. Martin (Eds.), *Handbook on geographies of money and finance* (pp. 415–433). Edward Elgar.

Douthat, R. (2025, January 17). How democrats drove Silicon Valley into Trump's arms. Ross Douthat interview of Marc Andreessen, January 17, 2025. Retrieved September 7, 2025, from https://www.nytimes.com/2025/01/17/opinion/marc-andreessen-trump-silicon-valley.html
Eich, S. (2019). Old utopias, new tax havens: The politics of bitcoin in historical perspective. In P. Hacker, L. Ioannis, G. Dimitropoulos & S. Eich (Eds.), *Regulating blockchain: Techno-social and legal challenges* (pp. 85–98). Oxford University Press.
Eich, S. (2022). *The currency of politics*. Princeton University Press.
Engelen, E., Ertürk, I., Froud, J., Johal, S., Leaver, A., Moran, M., Nilsson, A., & Williams, K. (2011). *After the great complacence: Financial crisis and the politics of reform*. Oxford University Press.
Faria, I. (2021). The market, the regulator, and the government: Making a blockchain ecosystem in The Netherlands. *Finance and Society*, *7*(1), 40–56. https://doi.org/10.2218/finsoc.v7i1.5590
Fisher, A. (2022). Sam Bankman-fried has a savior complex – And maybe you should too. Sequoia Capital, see footnote 26. Retrieved September 9, 2024, from https://archive.ph/qFJJN
Giancarlo, C. (2022). *Cryptodad: The fight for the future of money*. Wiley Golumbia.
Goodman, J., Harty, D., & Hill, M. L. (2025, October 25). Crypto CEOs race to rescue landmark bill amid Senate gridlock. *Politico*. https://www.politico.com/news/2025/10/23/crypto-ceos-senate-digital-assets-bill-00619335
Haberly, D., MacDonald-Korth, D., Urban, M., & Wójcik, D. (2019). Asset management as a digital platform industry: A global financial network perspective. *Geoforum*, *106*, 167–181. https://doi.org/10.1016/j.geoforum.2019.08.009
Haberly, D., & Wojcik, D., (2022). *Sticky power*. Oxford University Press.
Hall, S. (2023). Anticipating Sino-UK fintech networks and the changing geographies of money as infrastructure. *Environment and Planning A: Economy and Space*, *55*(4), 931–948. https://doi.org/10.1177/0308518X221140413
Harvey, D. (2010). *The enigma of capital*. Profile Books.
Hayes, A. (2021). World monies or money-worlds: A new perspective on cryptocurrencies and their moneyness. *Finance and Society*, 7(2), 130–139. https://doi.org/10.2218/finsoc.v7i2.6629
Hendrikse, R., Bassens, D., & van Meeteren, M. (2018). The appelization of finance: Charting incumbant finance's embrace of FinTech. *Finance and Society*, *4*(2), 159–180. https://doi.org/10.2218/finsoc.v4i2.2870
Hendrikse, R., van Meeteren, M., & Bassens, D. (2020). Strategic coupling between finance, technology and the state: Cultivating a fintech ecosystem for incumbent finance. *Environment and Planning A: Economy and Space*, *52*(8), 1516–1538. https://doi.org/10.1177/0308518X19887967
Hinman, W. (2018, June 14). *Digital asset transactions: When Howey met Gary (Plastic)*. Speech at the Yahoo Finance All Markets Summit on Crypto. https://www.sec.gov/newsroom/speeches-statements/speech-hinman-061418
Ioannou, S., & Wojcik, D. (2022). The limits to FinTech unveiled by the financial geography of Latin America. *Geoforum*, *128*, 57–67. https://doi.org/10.1016/j.geoforum.2021.11.020
Kellerman, M., & Seddon, J. (2024). Into the ether or the state? Legibility theory and the cryptocurrency markets. *Business and Politics*, *26*(3), 382–405. https://doi.org/10.1017/bap.2023.38
Khalili, J. (2025, February 18). Chokepoint 2.0: An investigation promises the truth about crypto's biggest conspiracy. *Wired* online, Retrieved September 7, 2025, from https://www.wired.com/story/operation-chokepoint-20-crypto-debanking-conspiracy/
Lai, K. P. Y. (2021). Fintech: The dis/re-intermediation of finance? In J. Knox-Hayes & D. Wojcik (Eds.), *The Routledge handbook of financial geography* (pp. 440–457). Routledge.
Lai, K. P. Y. (2023). Financial geography I: The state-finance nexus. *Progress in Human Geography*, *47*(4), 591–603. https://doi.org/10.1177/03091325231170756
Lai, K. P. Y., & Samers, M. (2021). Towards an economic geography of FinTech. *Progress in Human Geography*, *45*(4), 720–739. https://doi.org/10.1177/0309132520938461
Langley, P., & Leyshon, A. (2017). Platform capitalism: The intermediation and capitalisation of digital economic circulation. *Finance and Society*, *3*(1), 11–31. https://doi.org/10.2218/finsoc.v3i1.1936
Langley, P., & Leyshon, A. (2021). The platform political economy of FinTech: Reintermediation, consolidation and capitalisation. *New Political Economy*, *26*(3), 376–388. https://doi.org/10.1080/13563467.2020.1766432
Langley, P., & Leyshon, A. (2023). Fintech platform regulation: Regulating with/against platforms in the UK and China. *Cambridge Journal of Regions, Economy and Society*, *16*, 257–268. https://doi.org/10.1093/cjres/rsad005
Lewis, M. (2023). *Going infinite: The rise and fall of a New tycoon*. Allen Lane.
Lynch, C. R., & Munoz-Viso, A. (2024). Blockchain urbanism: Evolving geographies of libertarian exit and technopolitical failure. *Progress in Human Geography*, *48*(1), 66–84. https://doi.org/10.1177/03091325231219699
Maurer, B. (2016). Re-risking in realtime: On possible futures for finance after the blockchain. *Behemoth*, *9*(2), 82–96.
Maurer, B., Nelms, T. C., & Swartz, L. (2013). 'When perhaps the real problem is money itself!': The practical materiality of Bitcoin. *Social Semiotics*, *23*(2), 261–277. https://doi.org/10.1080/10350330.2013.777594
Muellerleile, C. (2015). Speculative boundaries: Chicago and the regulatory history of US financial derivative markets. *Environment and Planning A: Economy & Space*, *47*, 1805–1823.
Muellerleile, C. (2025a). Derivatives, market liquidity, and infrastructural finance. In C. Westermeier, M. Campbell-Verduyn, & B. Brandl (Eds.), *The Cambridge global handbook of financial infrastructure* (pp. 13–25). Cambridge: Cambridge University Press.

Muellerleile, C. (2025b). The currency of Trump's techno-authoritarian populism. *Dialogues in Digital Society*, online first https://doi.org/10.1177/29768640251386628
Nakamoto, S. (2008). *Bitcoin: A peer-to-peer electronic cash system*. Self-published, available on SSRN. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3440802
Nathanson, J. (2023). Restructuring futures markets. *The University of Chicago Business Law Review*. Online Edition 2023. https://businesslawreview.uchicago.edu/online-archive/restructuring-futures-markets
Newmyer, T., & Whoriskey, P. (2022, November 28). Inside Sam Bankman-Fried's courtship of a Washington regulator. *The Washington Post*.
Osipovich, A. (2022). Futures giant CME considers brokerage, taking cue from crypto rival FTX. *The Wall Street Journal* online version. Retrieved October 23, 2024, from https://www.wsj.com/articles/futures-giant-cme-considers-brokerage-taking-cue-from-crypto-rival-ftx-11664592510
Piper, K. (2022, November 16). Sam Bankman-Fried tries to explain himself. *Vox* online. Retrieved October 31, 2024, from https://www.vox.com/future-perfect/23462333/sam-bankman-fried-ftx-cryptocurrency-effective-altruism-crypto-bahamas-philanthropy
Pistor, K. (2019). *The code of capital*. Princeton University Press.
Popper, N. (2015). *Digital gold*. Allen Lane.
Potts, S. (2021). Beyond (de)regulation: Law and the production of financial geographies. In J. Knox-Hayes & D. Wojcik (Eds.), *The Routledge handbook of financial geography* (pp. 103–121). Routledge.
Rella, L. (2019). Blockchain technologies and remittances: From financial inclusion to correspondent banking. *Frontiers in Blockchain*, *2*, article 14. https://doi.org/10.3389/fbloc.2019.00014
Rella, L. (2020). Steps towards an ecology of money infrastructures: Materiality and cultures of ripple. *Journal of Cultural Economy*, *13*(2), 236–249. https://doi.org/10.1080/17530350.2020.1711532
Schneider, N. (2019). Decentralization: An incomplete ambition. *Journal of Cultural Economy*, *12*(4), 265–285. https://doi.org/10.1080/17530350.2019.1589553
Slobodian, Q. (2025). *Hayek's bastards: The neoliberal roots of the populist right*. Penguin.
Smith, H., & Burrows, R. (2021). Software, sovereignty and the post-neoliberal politics of exit. *Theory, Culture & Society*, *38*(6), 143–166. https://doi.org/10.1177/0263276421999439
Swartz, L., et al. (2017). Blockchain dreams: Imagining techno-economic alternatives after Bitcoin. In M. Castells (Ed.), *Another economy is possible* (pp. 82–105). Polity.
Szalay, E. (2021). Crypto exchange FTX sets sights on blue-chip acquisitions. *Financial Times*, online. Retrieved October 2, 2010, from https://www.ft.com/content/c8ffb228-1dbe-4e8a-b30b-be7203d71e7d
Vogl, J. (2017). *The ascendancy of finance*. Policy Press.
Wakefield, S., Molinari, S., & Grove, K. (2023). Crypto-urban statecraft: Post-pandemic urban governance experiments in Miami. *Urban Geography*, *44*, 1816–1824. https://doi.org/10.1080/02723638.2022.2125664
Westermeier, C. (2019). Political security and finance: A post-crisis and post-disciplinary perspective. *Zeitschrift für Politikwissenschaft*, *29*(1), 105–122. https://doi.org/10.1007/s41358-019-00174-7
Wojcik, D. (2021). Financial geography II: The impacts of FinTech – Financial sector and centres, regulation and stability, inclusion and governance. *Progress in Human Geography*, *45*(4), 878–889. https://doi.org/10.1177/0309132520959825
Young, K. L., Marple, T., Heilman, J., & Demarais, B. A. (2022). A double-edged sword: The conditional properties of elite network ties in the financial sector. *Environment and Planning A: Economy & Space*, *55*(4), 997–1019. https://doi.org/10.1177/0308518X221127704
Zook, M. (2023). Platforms, blockchains and the challenges of decentralization. *Cambridge Journal of Regions, Economy and Society*, *16*(2), 367–372. https://doi.org/10.1093/cjres/rsad008
Zook, M., & Blankenship, J. (2018). New spaces of disruption? The failures of Bitcoin and the rhetorical power of algorithmic governance. *Geoforum*, *96*, 248–255. https://doi.org/10.1016/j.geoforum.2018.08.023
Zook, M., & Grote, M. H. (2020). Initial coin offerings: Linking technology and financialization. *Environment and Planning A: Economy and Space*, *52*(8), 1560–1582. https://doi.org/10.1177/0308518X20954440
Zook, M., & Grote, M. H. (2024). Blockchain financial geographies: Disrupting space, agency, and scale. *Geoforum*, *151*, 103615. https://doi.org/10.1016/j.geoforum.2022.08.001