Finance and Society (2026), **12**, 127–145
doi:10.1017/fas.2026.10055

CAMBRIDGE UNIVERSITY PRESS

ARTICLE

On technofinance

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Abstract

Finance is becoming tech – and in the process, changing how the future enters the present. This claim goes beyond the familiar story of 'fintech', in which digital tools transform the delivery of otherwise recognizable financial services. It points instead to a deeper change in how finance coordinates action under uncertainty. We introduce the concept of *technofinance* to name an emerging regime in which engineered infrastructures generate, rank, circulate, and act upon financial signals automatically, recursively, and at scale. We develop the concept across three interrelated dimensions. Infrastructurally, technical systems increasingly determine the conditions of participation, visibility, and eligibility. Performatively, code and automated feedback loops assume coordinating work once performed through expert interpretation and institutional judgement. Communicatively, dashboards, feeds, rankings, and alerts reorganize financial attention around continuous response. Together, these developments shift finance from a representational mode, organized around the narration of uncertain futures, toward an operational mode that technologically produces actionable presents. The result is a compression of financial time and the rise of a new mode of architectural power: the capacity to govern coordination in advance through protocols, parameters, defaults, and thresholds. When finance becomes tech, the social moves upstream into the design, ownership, and governance of technical systems. At stake, therefore, is not simply the future of financial services, but who – or what – determines which futures become visible, investable, and possible.

Keywords: digital finance; fintech; futurity; sociology of finance; technofinance

Introduction

Over the past several decades, scholars working across a range of fields have converged on the insight that finance entails a set of social arrangements for managing expectations and coordinating action through time. At stake in this literature is not simply the existence of markets or the allocation of capital, but the more fundamental question of how actors orient themselves toward futures they cannot know and must nevertheless act upon. The now widely-accepted answer is that economic coordination depends on narratives, conventions, models, and institutional trust in order to render the future actionable in the present (MacKenzie, 2006; Carruthers and Kim, 2011; Esposito, 2011; Beckert, 2016). Financial instruments translate uncertain temporal horizons into calculable claims, while professional intermediaries such as analysts, ratings agencies, fund managers, and central bankers mediate among competing interpretations of what the future might hold. In this

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https://doi.org/10.1017/fas.2026.10055 Published online by Cambridge University Press

sense, finance has long functioned as what we might call a *social technology*, a structured ensemble of practices, institutions, and symbolic forms that make coordinated investment under uncertainty possible.

This characterization, however powerful, no longer fully captures the nature of financial coordination in the early twenty-first century. Something important has changed, and the available analytical vocabularies have not kept pace. The most familiar way of naming the change, 'fintech', registers the proliferation of digital financial services and the entry of technology firms into payments, lending, insurance, and asset management (Bernards and Campbell-Verduyn, 2019; Wójcik, 2021a; 2021b; Fields, 2022; Langley and Leyshon, 2021, 2026). But fintech, as a label, simply designates a sectoral boundary crossing: technology companies doing finance or financial firms adopting digital tools. It therefore leaves the deeper question unasked. Has the very mode by which finance manages the future itself become technological in character?

Answering this question has become harder, not easier, in recent years. The foundational oppositions through which finance has been understood – financial versus 'real', market versus institution, calculative versus narrative – are now joined by another distinction that is proving equally impossible to sustain: that between the digital and the financial. As this boundary collapses, it fuels an overproduction of new periodizing concepts, each of which suggests a prevailing economic order modified by the application of technology. Platform capitalism, algorithmic capitalism, fintech capitalism, and so on. But these periodizing concepts also express the suspicion that 'capital itself risks being swallowed up by digital technology' (Samman et al., 2022: 103). This suspicion now fuels a proliferation of new theoretical tropes. Vogl (2022) writes of a 'fusion' of finance and information economies, a dual movement in which the 'informatization of financial markets is combined with a financialization of information on the basis of network technologies' (Vogl, 2022: 23). Langley and Leyshon (2025) describe the 'disappearance' of fintech into the background of digital life, a transformation of finance through the dissolution of its prior forms. Langenohl (2026) speaks of finance and tech 'commingling', the emergence of finance through technically constituted situations such as those of online trading apps. Meanwhile, the industry has its own preferred term, 'embedded finance', for the seamless incorporation of payments, lending, insurance, and investment into non-financial platforms, from e-commerce to healthcare to education.

These tropes of fusing, disappearing, commingling, and embedding register something real, i.e., the increasingly untenable character of the boundary between finance and technology as distinct domains. But as analytical resources, they remain gestural. They indicate a direction of travel without specifying the route the transformation takes. What is needed is a precise account of what has changed in the logic of financial coordination itself. This article offers one. Finance has not merely incorporated digital instruments into its daily operations; it has *become technological* in its operative logic. We do not mean by this the digitization of existing services or the automation of formerly manual processes. We mean that the core work of finance, the work of organizing capital and present action around future possibility, is increasingly performed through engineered infrastructures that generate, rank, circulate, and operationalize future-oriented signals automatically and at scale. Under these conditions, finance shifts from a system that *interprets* the future through socially mediated judgement to one that *technologically produces* actionable presents. This is how finance becomes tech. When finance passes through the eye of digital technology, it emerges as *technofinance*.

Our argument rests on a threefold distinction. First, there is the established view of finance as a *social technology*, a historically evolved apparatus of trust, narrative, convention, and institutional mediation that enables coordinated action under conditions of uncertainty. This view remains indispensable. Second, there is the *fintech* thesis, the

https://doi.org/10.1017/fas.2026.10055 Published online by Cambridge University Press

observation that digital platforms, algorithms, and data-driven services are reshaping the delivery and accessibility of financial products. This thesis is empirically important but analytically insufficient, because it treats technology as an external force acting upon a stable financial function. Third, there is the argument we develop here, which maintains that the financial function itself has been transformed by, and into, digital technology. Finance does not simply use technology more intensively. It increasingly *operates as* a technology, one that is infrastructural, recursive, automated, and oriented less toward narrating futures than toward engineering presents. *Technofinance* names neither a merger of fields nor a vanishing act. It marks a shift in the operative logic through which the future becomes economically actionable.

The transformation we describe has not gone unrecorded. Its elements are documented across a now-substantial body of work on machine learning and automated trading, robo-advice, algorithmic credit scoring, platform investing, and the datafication of financial expertise (e.g., Fourcade and Healy, 2017; 2024; Pardo-Guerra, 2019; Hayes, 2021; MacKenzie, 2021; Borch and Min, 2023; Hansen and Souleles, 2023; Millo et al., 2024). Each of these literatures registers, within its own domain, some portion of the shift we are naming, and each has developed a vocabulary adequate to its portion. What none of them supplies is an account of the properties these findings share or a specification of the mechanism that links them. Technofinance provides that account. Synthetic by design, it assembles what domain studies have established piecemeal into a more general claim about the changing character of financial coordination today. Technofinance names an emerging regime whose broader consequences only become visible at this higher level of generality.

Precision requires us to separate technofinance from the adjacent terms with which it is easily confused. *Digital* names a medium, *algorithmic* a technique, *automated* a mode of execution, *infrastructural* a relation, and *non-human* a limit case in which agency passes over to software. None of these, taken alone, identifies technofinance, and some are not even necessary to it. A digitized service whose coordinative logic still runs on professional judgement is fintech. What makes finance *technofinancial* is a cluster of properties operating together. Coordination is constituted through engineered infrastructure rather than merely supported by it; the interval between signal and action is automated and compressed, displacing deliberation; the system is recursive, its outputs becoming the inputs for further coordination; and its temporal grain contracts from the episodic and enduring to the continuous and fleeting. How far this cluster extends across contemporary finance is an open question. The most likely answer is unevenly. The dynamics of technofinance are already well developed in automated securities trading and platform-mediated retail finance, much less so in relationship banking and long-horizon institutional investment. Our argument concerns the mechanism and direction of the change, as well as what follows analytically where it has taken hold. Where these properties hold, finance becomes tech, and the social – while not disappearing altogether – is relocated into the design, ownership, and governance of technological infrastructure. This is why the politics of technofinance is a politics of architecture.

The article proceeds as follows. We first reconstruct the established understanding of finance as a social technology, drawing on the sociology of expectations, the performativity paradigm, and institutional approaches to financial markets. We then examine the fintech thesis and its limits, including the more recent vocabulary of embedded finance and the tensions it reveals. From there, we articulate the technofinance thesis across three analytical dimensions (infrastructural, performative, and communicative), showing how each contributes to a qualitative transformation of financial coordination. We then turn to temporality, where the shift from representation to operation has its deepest effects, and to power, where it issues in a distinctive form of

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architectural control. We end by proposing a research agenda for technofinance, considering what the transformation implies – at its outer limit – for the place of human beings in financial coordination.

Finance as social technology

The idea that finance functions as a social technology is not new, even if the exact phrase appears unevenly in the literature. Its foundations lie in several streams of scholarship that converge on a single claim: that financial markets are not self-equilibrating mechanisms governed by the impersonal logic of price, but socially organized systems for managing the radical uncertainty of the future.

The most direct articulation belongs to Beckert (2016), whose account of 'imagined futures' places fictional expectations at the heart of capitalist dynamics. Economic actors cannot know the future, in the Knightian sense, yet must act as though they can. Financial markets solve this problem through the production and circulation of credible narratives, shared stories about growth, innovation, risk, and return that stabilize expectations and enable coordination. Money flows toward projects whose futures have been made investable through socially persuasive representation, rather than toward those an optimizing calculus would select. Finance, in this rendering, is a technology of collective imagination, furnishing the symbolic and institutional infrastructures through which uncertain futures become investable.

Esposito (2011) develops a complementary argument from the standpoint of systems theory. Financial markets do not predict the future so much as produce a present that incorporates the future as a dimension of current decision-making (see also Doganova, 2024). Derivatives, in particular, function as instruments for binding the present to specific conditional futures. The conception is again that finance constructs a relationship to the future that permits commitment under conditions of uncertainty.

A third strand emphasizes the institutional and professional dimensions of coordination. Analysts, ratings agencies, auditors, and central bankers translate uncertain prospects into standardized or otherwise persuasive assessments (Rona-Tas and Hiss, 2011; Holmes, 2013; Abolafia, 2020; Carruthers, 2022). Their authority rests on recognized social position and accreditation rather than superior prediction (which the empirical record rarely supports). Valuation, in this view, is never purely technical. It is an institutionally embedded practice shaped by convention, jurisdictional struggle, and professional culture (Wansleben, 2013; Ortiz, 2014; Beunza, 2019). The 'technology' of finance thus includes the organizational routines and epistemic communities that stabilize judgement in the absence of determinate knowledge.

These perspectives are united by a conviction that seemingly automatic processes in the economy are nothing of the sort. What economists treat as market efficiency, price discovery, and the discounting of future cash flows are, in fact, achievements of an elaborate social apparatus that renders the future imaginable and manageable. Finance, on this view, is a social technology in the robust sense, a structured arrangement for producing and binding the temporal orientations on which economic activity depends.

One dimension of this view deserves emphasis, because the technofinance thesis confronts it most directly. Finance as a social technology is episodic in its temporality. Coordination occurs through discrete moments of judgement, such as the analyst's report, the quarterly earnings call, the annual valuation review, and periodic portfolio rebalancing. Between these episodes, commitments hold. Investors wait. Trust, once established, persists until reasons arise to revise it. The temporal grain of finance is therefore coarse, measured in months, quarters, and years. This episodic quality has not been a deficiency of modern finance but a constitutive feature (Poliks and Trillo, 2025). It allows for deliberation, for the weighing of competing narratives, and for the slow

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accretion of institutional confidence that long-term investment requires. Social technologies of coordination presuppose intervals in which social processes can operate.

This characterization remains foundational, and recent scholarship has begun to track what happens to its elements under data-intensive conditions. Studies of machine-driven finance find expertise being rebuilt around data work, model development, and the supervision of learning systems (Hansen and Souleles, 2023), while research on expectation formation asks what becomes of narrative when forecasting passes to algorithms trained on past prices (Svetlova, 2022). We build on such work. Narrative, trust, expertise, and institutional mediation persist, and their reconfiguration is increasingly well documented domain by domain. Our claim concerns the aggregate. Taken together, these reconfigurations amount to a change of regime, in which social mediation is often no longer the primary medium of financial coordination. Something else has moved into the foreground, and naming it requires an analytical register that no single domain study has needed to supply.

The fintech thesis and its limits

The most visible candidate for naming the change is 'fintech'. This term gained currency in the 2010s and now designates a broad domain of innovation in which digital technologies are applied to the delivery, accessibility, and efficiency of financial services. Mobile payments, peer-to-peer lending, robo-advisory services, algorithmic trading, buy-now-pay-later apps, blockchain-based settlement, and digital currencies all fall within its scope (Maurer, 2015; Bernards and Campbell-Verduyn, 2019; Rella, 2020; Hayes, 2021; Langley and Leyshon, 2021; Tan, 2021). Fintech scholarship has produced important insights into how digital platforms reconfigure financial inclusion and exclusion (Aitken, 2017; Gabor and Brooks, 2017; Bernards, 2019; Rodima-Taylor and Grimes, 2019; Brandl and Dieterich, 2023), how algorithmic systems reshape credit assessment and risk pricing (MacKenzie and Pardo-Guerra, 2014; O'Neil, 2016; Fourcade and Healy, 2017; Gruin, 2019), and how the platform economy intersects with surveillance and the financialization of behavioural data (Srnicek, 2017; O'Dwyer, 2019; Zuboff, 2019; Sadowski, 2020; Westermeier, 2020).

As an analytical category, though, fintech encounters a structural limitation. It frames the relationship between technology and finance as additive. Technology is applied *to* finance – disrupting incumbents, lowering costs, and widening access – while finance itself remains conceptually stable. The question fintech scholarship typically asks, therefore, is how technology changes the delivery of financial services. Our question is whether the mode of financial coordination has itself become technological. The distinction is not pedantic. By preserving a boundary between the social and the technical, the fintech framing treats finance as a social domain into which technical artifacts are introduced, and so obscures the possibility that a more fundamental change has occurred. If finance has become technological in its mode of operation, the relevant transformation lies not at the level of products and services, but at the level of the coordinative infrastructure through which investment, valuation, and risk distribution are organized.

An analogy clarifies the stakes. To say that newspapers adopted digital distribution, through websites, apps, and social feeds, describes a transformation at the level of information delivery. To say that the public sphere has become technologically constituted – that the formation of public opinion now runs on algorithmic curation and ranking, platform architecture, and automated recommendation – describes a change in the mode by which information itself is coordinated (Pasquale, 2015; Cheney-Lippold, 2017; Fourcade and Healy, 2024). For our purposes, the first claim is about fintech; the second is about technofinance.

The recent discourse on embedded finance clarifies the limitation from another angle. 'Embedded finance' names the integration of financial capabilities like payments, lending, insurance, and investment, into the digital environments of non-financial platforms,

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enabled by application programming interfaces (APIs) and Banking-as-a-Service (BaaS) models. It is, in industry terms, the 'next frontier' beyond fintech, a stage in which financial services are woven into the fabric of everyday digital interaction, from ride-hailing apps to e-commerce marketplaces to healthcare portals. This centripetal movement toward platform embedding sits in tension with the decentralizing thrust of much recent commentary on alternative finance. Where blockchain-based 'decentralized finance', or DeFi, promised to democratize finance by disintermediating traditional gatekeepers through technological assemblage (Campbell-Verduyn, 2018; Hayes, 2019), embedded finance uses the power of centralized platforms to deliver financial services in a seamless and context-specific manner (Langley and Leyshon, 2025). The opposition between decentralization and embedding bears on questions of trust, control, and the institutional mediation of financial interaction.

But embedded finance and DeFi, for all their differences, share the limitation of the framing that contains them. They describe new configurations of delivery (who provides the service, through what channel, under what protocol) while assuming that the coordinative function of finance remains unchanged. The embedding of payments into an e-commerce checkout or the disintermediation of lending through a smart contract simply reconfigures access and efficiency. They become more than that only if the infrastructure through which they operate has altered the basic mode by which finance coordinates. The notion of embedded finance unwittingly points toward exactly this. If finance can be lodged into technical environments so seamlessly that it disappears from view, then the conditions of coordination are no longer primarily social, in the sense that they entail narrative, trust, or professional judgement, but architectural, in the ways indicated by interface, protocol, and API. Embedding is a symptom of technofinance (see Table 1).

Table 1. The concept of technofinance.

Concept	What it foregrounds	What it leaves out of view
Fintech	Digital delivery or access of financial services	The transformation of coordination itself
Embedded finance	Finance lodged inside non-financial platforms	The infrastructural formatting of action
DeFi	Protocolized, disintermediated finance	The persistence and relocation of architectural power
Technofinance	*Finance as a mode of technological coordination, foregrounding temporality, agency, and power*	

The fintech framing also tends to treat individual technologies – a particular algorithm, a specific platform, a given protocol – as discrete interventions, which makes the systemic character of the change hard to see. The systemic tendency is not uniform and therefore requires careful articulation. Borch and Min (2023), for example, trace how the spread of machine learning converts automated trading from a collection of hand-coded strategies into an ecology of interacting, self-revising models, a systemic transformation within a single market domain. Vogl (2022: 24) captures a systemic quality of another kind, describing an 'alliance of media technology and finance' in which finance becomes informational and information becomes financial, a convergence and symbiosis that renders information at once the medium and the object of valorization. Technofinance builds on such accounts and pushes them further. It directs attention away from specific technologies within finance, and away from the informational merger that Vogl diagnoses, toward the displacement of social coordination by infrastructural constitution, a process that runs across trading, credit, payments, and investment. We likewise extend Langley and Leyshon's (2025: 7) notion of

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'fintech disappearance', or the embedding of finance into 'the mundane rhythms of technologically enabled socio-economic life'. What disappears, on our account, is not 'fintech' as an identifiable market domain, but the primacy of finance in its social mode of operation. Finance is reconstituted through its becoming-technological.

Three dimensions of technofinance

The claim that finance has become technological gains its force through three interconnected dimensions: the *infrastructural*, the *performative*, and the *communicative*. Each marks a domain in which the operative logic of coordination shifts from social mediation toward technical constitution. Together they describe a transformation that is qualitative rather than incremental.

The infrastructural dimension

The first dimension concerns the material substrates of coordination. Finance has always run on infrastructure (Pinzur and Duterme, 2025). Paper ledgers, telegraph wires, ticker tape, exchange floors, and clearing houses were never incidental to it. What the social-technology view captured is a particular relation between infrastructure and future-orientation, in which technical arrangements supported episodic acts of valuation, negotiation, and settlement while interpretation did the decisive work. That relation has changed, and the change is simultaneously one of primacy, scale, opacity, speed, recursion, and automation. Prices, liquidity, valuation, risk transfer, even investor attention, now depend constitutively on technical architectures, including matching engines, payment rails, clearing and settlement systems, custody protocols, APIs, scoring algorithms, dashboard interfaces, recommender systems, and platform rankings (Bernards and Campbell-Verduyn, 2019; Pardo-Guerra, 2019; MacKenzie, 2021). These have become the conditions of possibility for financial coordination itself. Without the matching engine there is no price, without the API no access, without the scoring model no creditworthiness, without the dashboard no visibility.

APIs deserve particular emphasis, because it is through them that finance becomes technologically legible at scale. APIs function as digital boundary objects between financial and non-financial actors, allowing payment, lending, and insurance capabilities to be integrated into platforms whose primary purpose is not financial. BaaS models extend the logic, letting non-financial firms offer financial products without building or maintaining their own underlying infrastructure (Westermeier, 2020). Financial coordination comes to occur in the technical interstices of digital platforms, in ride-hailing apps that extend credit, e-commerce sites that sell insurance, and healthcare portals that process payments. What Hendrikse et al. (2018) early on called the 'Appleization' of finance has become its primary mode of interaction. The technical infrastructure *is* today's financial system, and the question of where finance is located becomes a question about the topology of network connections rather than the geography of institutions.

This insight draws on and extends the infrastructural turn in the social sciences more broadly. Star (1999) argued that infrastructures acquire their political significance from their taken-for-granted character, becoming fully visible only when they break down. Subsequent work has shown how standards, classifications, protocols, and interfaces distribute capacities, organize visibility, and stabilize courses of action even before agents arrive on the scene. With respect to financial markets, scholars have shown that infrastructures exert power not only through the beliefs and interests of participants, but also through the durable material arrangements that structure participation itself (de Goede, 2020; Knorr Cetina and Preda, 2004; MacKenzie, 2021; Pinzur and Duterme, 2025;

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Westermeier et al., 2025). Platforms persist, protocols constrain, interfaces delimit the visible. When coordination depends on such arrangements, who designs the infrastructure becomes as consequential as who holds the capital.

The infrastructural dimension also brings to bear the recursive quality of technofinance. Financial infrastructures do not passively process transactions; they generate data that feeds back into the systems that record those transactions. Trading activity produces price signals that inform models that generate further trading. Credit scores shape borrowing that generates more data that recalibrates scores. Platform rankings determine visibility that drives transaction volume that redetermines rankings. The infrastructure is an active organizer of the field, producing the very signals, liquidity pools, and eligibility criteria on which coordination depends. These capacities have geopolitical reach, as the recurring struggles over international payment infrastructures like SWIFT show, with their demonstrated ability to route, block, and enable the exercise of state power (de Goede and Westermeier, 2022).

The performative dimension

The second dimension concerns the locus of *performativity*. The foundational work of Callon (1998) and MacKenzie (2006) showed that economic theories can act as coordinating forces in their own right. In MacKenzie's account, the Black-Scholes-Merton option pricing model did not describe options markets so much as reorganize them, drawing prices into alignment with theoretical predictions as traders and market makers came to rely on it. Later scholarship generalized the point, showing how calculative tools, accounting standards, and market devices participate in formatting and producing the realities they appear to merely represent (Callon, 1998; MacKenzie et al., 2007; Muniesa, 2014).

In the classical account, the 'engine' was a theory or model that practitioners adopted at critical mass, be that traders using Black-Scholes, analysts deploying discounted cash flow, regulators implementing Value-at-Risk. The human expert remained the crucial intermediary between model and market. Today, however, it is often platforms, code, interfaces, protocols, and automated feedback loops – not practitioners – that perform economic theory (see Hayes, 2020). When an analyst issues a 'buy' recommendation, their judgement, socially authorized and institutionally legitimated, shapes the field of investment possibilities, and the price moves to meet expectations. When a platform's ranking algorithm surfaces an asset, token, or fund on a user's feed, the platform shapes that field too, but by other means. Its instruments are engineered visibility, interface design, and automated sorting, not authorized interpretation or narrative persuasion.

Analyst reports still matter, central bank communications still move markets, credit ratings still shape borrowing costs. But an analyst's recommendation now matters partly because of the platforms that disseminate it, the feeds in which it appears, and the alert systems that announce it. Performativity, in this way, has become layered: mediated, amplified, filtered, and sometimes overridden, by technical infrastructure.

Machine learning sharpens the displacement. In second-generation automated trading, strategies emerge from learning algorithms and generative AI whose operations exceed the understanding of their own developers, displacing the human-specified rules of first-generation systems (Borch and Min, 2023; Borch, 2026). The trained model does not wait to be adopted by practitioners; it simply trades. Calculative practices even begin to assess themselves, with machine learning models evaluating the outputs of other models, folding the moment of professional judgement into an automated loop (Millo et al., 2024). Performativity of this kind has no Black-Scholes to point to, no public formula whose adoption draws prices toward theory. What performs is the trained system itself, and its

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performance issues in an operational stance toward the market, continuously updated, in which narrative plays no meaningful role. The question thus shifts from which models perform to which technical arrangements determine what is allowed to perform and to what extent.

The communicative dimension

The third dimension concerns the forms of communication through which coordination is accomplished. Classical financial communication was discursive: the annual report, the analyst note, the earnings call, the investor presentation, the macroeconomic forecast, the newspaper column, the regulatory filing. These forms were narrative in structure, interpretive in character, and oriented toward long horizons (Rona-Tas and Hiss, 2011; Beckert, 2016; Abolafia, 2020; Coombs, 2022). They told stories about firms, sectors, economies, and global value chains, and their persuasive force lay in translating complex, uncertain developments into accounts coherent enough to warrant investment.

Contemporary financial communication takes other forms. Dashboards, watchlists, feeds, sentiment streams, push notifications, leaderboards, influencer clips, metrics displays, and algorithmically curated news now structure the communicative environment of financial actors (Fourcade and Healy, 2017; Moor, 2021; Hayes and Ben-Shmuel, 2024; Tan, 2025). These are not simply abridged or accelerated versions of the older genres. They differ in their formal properties, being modular rather than narrative, quantified rather than interpretive, ranked rather than argued, and tuned for immediacy rather than deliberation. Communication curated in this way becomes, in a precise sense, *engineered*: designed, tested, and refined to produce specific patterns of attention and response. The signals themselves have a production apparatus. Sentiment indices and 'alternative data' streams are manufactured from social media chatter, news flow, and other non-standard sources prospected expressly for machine consumption (Hansen and Borch, 2022). The feed is engineered twice over: once in what it displays, and once in how its inputs are made.

Langenohl (2026), examining the techno-social interaction orders of online trading apps, shows that finance arrives already-constituted as a situated reality through the communicative affordances of digital interfaces. The trading app does not deliver information to a user who then deliberates; it builds the situation in which financial action becomes possible, shaping attention, tempo, and the horizon of relevant options through its design and affordances (see Hayes, 2021). Finance in this way emerges in and through the techno-social situation rather than preceding it. Its communicative forms are part of how coordination happens, not an ornament upon it.

If economic life is communicatively constituted, and if markets cohere through the circulation of meaningful signals among oriented actors (Knorr Cetina and Bruegger, 2002; Appadurai, 2016; Moor, 2021), then a change in the dominant forms of communication is a change in the market. When narrative gives way to feed, interpretation to metric, the annual report to the real-time dashboard, what shifts is not only the speed of information but the temporal structure of coordination. The future stops being a narrative horizon toward which one commits and becomes a stream of signals to which one responds.

This transformation also redefines the relevant agents of financial discourse. In narrative-centred finance, the key communicators were analysts, public-relations executives, journalists, and policymakers, whose credibility rested on interpretive authority. In technofinance, they are platform designers, feed architects, notification engineers, and ranking-algorithm developers, whose influence lies in the communicative structures they build rather than in anything they say. The power to shape coordination migrates from the production of persuasive interpretation to algorithmic design.

Across all three dimensions of technofinance (the infrastructural, the performative, and the communicative), the social character of finance is reformatted. Trust does not

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evaporate; it migrates. The future does not vanish; it is modularized into signals, rankings, memes, clips, and metrics. Judgement does not cease; it is folded into model design, interface defaults, scoring parameters, and alert thresholds. Technofinance is therefore not the replacement of social finance by a technical substitute, but the relocation of social mediation into the technological architecture itself.

From representation to operation: The temporal logic of technofinance

These three dimensions converge on a shift that can be stated precisely: *Finance has moved from a representational to an operational mode of coordination.* This shift is most consequential in its temporal register, for it is in the reorganization of time that technofinance has its deepest effects.

Traditional finance, which is to say modern finance, was in the business of *stretching* time. Its fundamental operation was to connect present resources to possible futures through projections and institutional commitments that held orientation steady across long horizons (Beckert, 2016). A pension fund bought equities because a story about long-run growth made the commitment reasonable. A corporation issued bonds because revenue projections made repayment plausible. A central bank set interest rates because a macroeconomic model made the path of inflation interpretable. In each case, coordination depended on a temporal bridge between present action and future outcome, and the technology that built the bridge, narrative, model, or convention was *representational*. It produced images of the future persuasive enough to underwrite commitment now.

Technofinance *compresses* time. Its characteristic operation is the continuous generation of real-time signals that prompt immediate response. Technical infrastructures emit relentless streams of data, prices, volumes, sentiment indices, trending assets, liquidity measures, and risk alerts, all of which are consumed as cues for action rather than inputs to deliberation. What matters in this paradigm is not whether a story about the future persuades, but whether a signal presents an opportunity now.

This temporal compression has significant consequences. First, it changes the cognitive demands on financial actors. In modern-representational finance, the central task was interpretation and imagination. In technofinance, it is pattern recognition and response, the detection of signals within engineered environments and the execution of appropriately-timed action. Interpretation still exists, but it is subordinated to a system built for continuous throughput rather than periodic reflection.

Second, it changes the meaning of valuation. In the finance-as-social-technology view, valuation was an interpretive act, a socially contested assessment of long-run prospects anchored in subjectivity, convention, and professional judgement (Zuckerman, 2012; Doganova et al., 2014; Muniesa, 2014; Ortiz, 2014). In technofinance, valuation becomes an emergent property of recursive technical systems. An asset's 'value' is less a judgement about its long-term trajectory than a function of its current visibility, its liquidity, and its position in platform rankings and algorithmic feeds. Valuation is produced by systems rather than performed by subjects (Hansen, 2021).

Third, it reconfigures risk. Classical risk management built probabilistic models of future contingencies and designed institutions to pool and manage them: actuarial science, hedging instruments, diversification. Techno-financial risk management instead works through real-time monitoring and automated response to individual (un-pooled) claims: collateral triggers, margin calls, circuit breakers, and algorithmic liquidation protocols that fire on threshold violations with minimal human intervention. Risk is processed continuously in the present at fine-grain rather than estimated for the future and classified (Gamerdinger, 2025).

These dynamics are most consequential where the money is – in the institutional core of securities trading. Machine learning systems now scan order flow, news, and alternative

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data for exploitable structure, revise their own strategies in light of what they find, and execute at speeds that place the entire loop beyond real-time human intervention (MacKenzie, 2021; Borch and Min, 2023; Borch, 2026). Risk controls operate inside the same compressed loop, via pre-trade checks, kill switches, and automated deleveraging that fire on threshold violations in microseconds. Coordination here is not narrated at any point; it is computed, continuously, by systems whose orientation toward the future is a trained disposition rather than an articulated expectation. Nothing about this is marginal. It describes the ordinary functioning of the markets in which most of the world's tradable wealth is priced.

If machine-driven trading shows the new regime at the system's core, meme-coin platforms show it at the limit, where the representational mode is displaced altogether. On platforms such as Pump.fun, the entire asset lifecycle, from token creation through price discovery and speculative trading to collapse, is squeezed into minutes. What is striking is not the speed alone, but the operational architecture through which it occurs. The narrative apparatus of traditional finance – the founding team, the business plan, the prospectus, the analyst's assessment, the earnings projection – are dispensed with and replaced by a stimulus ecology of bonding curves, trending feeds, visceral memes, and live leaderboards that bypasses interpretive deliberation. The asset is triggered rather than narrated. Coordination proceeds through the immediate responsiveness of participants (human and machine alike) to signals that the platform engineers – and not through shared stories about what the asset might become, which in most cases is nothing. The social technology of fictional expectations gives way to a technical impetus of stimulus and response. Such platforms sit at the periphery of financial coordination, and that is their diagnostic value: they show what the coordinative logic looks like when nothing else constrains it.

The old and new regimes often collide, and the collisions expose the seams. In March 2022, a short squeeze in nickel futures drove prices on the London Metal Exchange past $100,000 a tonne, more than doubling in a few hours of overnight electronic trading, as automated margining cascaded through clearing systems faster than the positions behind it could be unwound. Allowing the morning's trades to stand would have triggered a margin call of nearly $20 billion and pushed a string of member firms toward default. The exchange reached for the bluntest of social technologies. Its officials suspended the market and cancelled roughly $12 billion of already-executed trades, substituting institutional judgement, retroactively, for what the machines had settled (Farchy et al., 2022). The episode displays both faces of the present conjuncture at once. Coordination migrates into an infrastructure of automated margining that no narrative could outrun, while the residual authority to override that infrastructure remains lodged in an institution, exercised episodically, defended in the courts on the ground that the market had become 'disorderly'. Technofinance names the first face. The second is what persistence looks like.

In short, finance becomes technological when the coordination of investment no longer depends primarily on socially persuasive representations of the future but on infrastructural systems that generate, rank, circulate, and operationalize future-oriented signals automatically and at scale. The shift is not from 'analog' to 'digital' finance, a framing that keeps the old function and merely updates its medium. It is from representation to operation, from interpreting uncertain futures to technologically producing a never-ending series of moments that coordinate, activate, and dissipate.

The architectural power of technofinance

If finance becomes technological in the sense described, then the distribution of power within financial systems is also transformed. This is perhaps the most consequential implication of

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the technofinance thesis, and it connects the argument to current debates about platform capitalism, digital governance, and the political economy of infrastructures.

In the social-technology regime, power ran along familiar lines. Those with capital could direct labour and investment. Those with expert knowledge (e.g., financial analysts, macroeconomists, rating agencies) could shape legitimacy and expectations. Those in institutional positions (e.g., central bankers, regulators, and exchange officials) could set the parameters of market activity. Power resided with identifiable actors who controlled the narratives, the capital, or the rules of the game. Its distribution was never equitable, and scholars of financial regimes have documented its asymmetries (Piketty, 2014; Godechot, 2017; Tooze, 2018; Alami et al., 2023). But the *kind* of power was legible, taking the form of discursive authority, capital control, or institutional jurisdiction.

Technofinance introduces a different axis of power, one that corresponds more with the legal and technical design of financial systems. When visibility, liquidity, eligibility, and responsiveness are set by technical infrastructures, those who design, maintain, and govern such infrastructures hold a distinctive form of power (De Filippi and Wright, 2018; Yeung, 2018). Platform designers shape who can participate and on what terms. Feed algorithms determine which assets are seen and which stay obscure. Scoring models define who qualifies for credit. Protocol rules govern how transactions settle, how disputes resolve, how value distributes. Interface designs structure attention, frame choice, and set the tempo of action. This is *architectural power*, a power that works by shaping the technical infrastructures through which coordination takes place. We define it as the capacity to set the terms of coordination in advance, through the specification of protocols, parameters, defaults, and thresholds that determine what a system will see, rank, permit, and execute.

The concept has near neighbours from which it needs distinguishing. *Infrastructural power*, in the lineage running from Mann's (1984) state theory into the sociology of finance, is power exercised through infrastructures already in place: central banks that govern by transacting through the plumbing of repo and collateral markets (Braun, 2020; Wansleben, 2023), or narrative authority that travels along the channels built to carry it (Coombs, 2022). It provides scholars with a tool to link the study of financial infrastructure with macro-political debates, but the concept has little to say about the technical constitution of such infrastructure (Coombs, 2025). Meanwhile, *platform power* is the positional power of a centrally designed and controlled technical system, typically expressed in economic terms as the rents and dependencies that accrue to whoever controls the bottleneck (Langley and Leyshon, 2017; Srnicek, 2017). *Architectural power* is prior to both. It is a form of power inscribed into specifications and design choices before any transactions occur, and it persists in artefacts that can bind even those who formally own or operate a system, long after the designers themselves have moved on. Architectural choices made at a specific point in time sediment into the materialities of a financial technology, and facilitate or limit the subsequent agency of both users and owners. Architectural power thus manifests in the design and propensities of a technology or infrastructure. It becomes viable as the agency encoded into the material and technological substrate of technofinance (Westermeier and de Goede, 2025).

Infrastructural power, platform power, and architectural power overlap in practice, since owners commission designs and standing infrastructures embody past design decisions, but they isolate different moments of the power relation: operation, position, and disposition. What technofinance changes is the weight of the third moment. When coordination is constituted by technical systems, disposition stops being a preliminary and becomes the main event. The decisive moment becomes the one in which designers, engineers, and manufacturers inscribe anticipated behaviours and usage patterns into a technical object or system, giving it a disposition of its own that may resist attempts to use it otherwise (see Akrich, 1992).

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Two cases make dispositions visible at different scales. When the Investors Exchange (IEX) introduced its 'speed bump', a 38-mile coil of optical fibre adding 350 microseconds of latency to incoming orders, it issued no rule, published no judgement, and moved no price. It altered the physics of access, and in doing so eliminated a class of latency-arbitrage strategies that depended on outrunning the exchange's own price updates (MacKenzie, 2021). A design parameter redistributed profitability across the field. Index construction exercises the same form of power at vastly greater scale. The methodological rules by which exchange groups and index providers classify markets and weight constituents steer trillions of dollars of benchmarked investment, so that a reclassification decision functions as capital allocation performed through specification (Petry, 2021). Hansen's (2025) account of 'stack inversion' in automated trading names the condition to which such power answers: as trading systems become layered assemblages of models, data feeds, and third-party dependencies, operational and analytical primacy shifts to the architecture itself. Architectural power belongs to those who write its script.

Nor is the form unique to finance. Across the digital economy, from the rising weight of artificial intelligence and its data centres to new regimes of online advertising and algorithmic curation, influence increasingly operates through design and circumscription rather than authority and coercion (Pasquale, 2015; Luitse and Denkena, 2021; McGowan et al., 2024; van der Vlist et al., 2024). Architectural power is frequently invisible to participants, lodged in systems whose workings are opaque. And it concentrates among actors who may sit far from traditional financial institutions – the software engineers, protocol developers, platform architects, and data intermediaries – who rarely face the accountability regimes that govern banks, regulators, or exchanges.

Financial regulation, organized historically around the oversight of institutions like banks, exchanges, and clearing houses, and the policing of conduct like fraud, manipulation, and insider trading, struggles to reach power exercised through infrastructure (Yeung, 2018; Bernards and Campbell-Verduyn, 2019). Relevant regulatory objects today include protocols, the design of matching engines, the parameters of scoring models, the rules of platform access, and the logic of feed curation. The frontier of financial governance in this way now lies in technical adjudication, where regulators often lack both the expertise and the jurisdiction to intervene effectively.

The tension between decentralization and recentralization described above sharpens the problem. DeFi protocols claim to replace institutional gatekeepers with algorithmic rules encoded in smart contracts, distributing governance across token-holding communities. Meanwhile, embedded finance consolidates intermediation within a handful of powerful platforms and makes access depend on proprietary API ecosystems. Both redistribute architectural power, albeit in opposite directions, and neither fits regulatory frameworks built for institutional oversight. Central bank digital currencies (CBDCs) are a third configuration, in which monetary authorities take up technologies originally designed to circumvent centralized control. Central banks across the world are now exploring digital currencies for wholesale and retail use, with motivations ranging from financial inclusion to monetary sovereignty to cross-border efficiency (Chey, 2026; Chu et al., 2025). CBDCs in this way show that the co-evolution of financial technology and institutional authority follows no single logic of centralization or decentralization, proceeding instead through contingent negotiations between technical possibility and institutional interest. More fundamentally, they indicate that architecture has itself become a primary site of monetary governance. New forms of money are new financial infrastructures, and their effects depend not only on who issues them but on how they are designed. Unlike traditional currencies, which are simply issued, CBDCs are engineered to enable new relations among public, private, and international actors (Westermeier, 2024).

Autonomous AI agents in financial environments mark the leading edge of architectural power today. AI agents that manage their own non-custodial crypto wallets have already

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commissioned work from humans and other AI agents alike with crypto transactions confirmed on-chain, a configuration in which the *principals* of financial action are software rather than human beings (Hayes, 2026). When AI systems execute trades, allocate capital, and enter smart contracts without human instruction or oversight, the locus of agency migrates from the human actor to the technical system more literally than the performativity literature ever envisaged. The question here is no longer only who designs the infrastructure, but how far the infrastructure has begun to operate on its own behalf. AI-to-AI transactions point to a wider process by which the financial field is increasingly populated with non-human actors that coordinate among themselves, for purposes that need not align with, or be legible to, the humans who originally built them.

This displacement of humans by machines raises problems of democratic accountability that exceed the usual concerns of financial regulation. If the future of finance is no longer merely imagined and interpreted but technologically formatted and enacted, if the range of futures that appear financially thinkable is set by the design of dashboards, the logic of ranking algorithms, and the parameters of scoring models, then the design of financial infrastructure becomes a way of governing futurity in general. Which projects get funded, which groups gain credit, which assets draw attention, and which risks are rendered visible or invisible, are settled by architectural decisions that are rarely open to public deliberation. Technofinance thus poses a problem of accountability that neither the social-technology nor the fintech view anticipated.

A research agenda for technofinance

If technofinance names a real transformation, it also opens a programme of inquiry. Treating finance as technological coordination reframes a familiar question in the political economy of finance. The old question was who controls capital. Technofinance adds a second – who designs the architectures through which capital is coordinated – and the two questions need not have the same answer. Parts of the second question have been answered for particular sites, from exchange groups turned infrastructure providers (Petry, 2021) to the layered architecture of automated trading (Hansen, 2025); the task now is to pursue it as a general property of the regime. It is already plausible that the designers of financial infrastructures shape investment patterns more decisively than many of the investors who operate within them. Five lines of inquiry follow.

The first concerns *formatting*. How do technical infrastructures format financial visibility, eligibility, liquidity, and attention, and with what distributive effects? APIs, scoring models, and ranking systems are some of the natural sites. A second concerns *authority*. How do platforms and protocols redistribute financial authority away from banks, exchanges, and rating agencies, and toward the engineers, protocol developers, and platform owners whose power is exercised through design? A third concerns *temporality*. How does the compression of decision cycles reshape valuation, risk, speculation, and the subjectivity of an investor who must now act within environments built for continuous response? Trading apps, dashboards, and at the limit platforms like Pump.fun, are where this is most legible. A fourth concerns *persistence*. How do narrative, trust, and expertise survive inside technofinancial systems? Reconfigured expertise in machine-driven finance (Hansen and Souleles, 2023) and the fate of narrative under algorithmic forecasting (Svetlova, 2022) mark the path, and the discretionary 'overlay' that quantitative managers retain over model outputs offers a concrete, observable site. This question guards the thesis against its own overstatement, and it is where the social studies of finance retain their full purchase. A fifth concerns *accountability*. What forms of regulation and political oversight are possible when power is exercised architecturally, before any transaction occurs and largely out of public view?

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A final issue belongs to the agenda at its outer limit rather than its centre. Technofinance does not abolish human actors, but it may relocate them, from zones of judgement toward those of design, oversight, maintenance, compliance, and residual intervention. Relocation is a tractable claim, and the fourth line of inquiry above exists to test it. Its extrapolation is something else. If coordination can run through infrastructures that generate signals, execute trades, and allocate capital without interpretive deliberation, and if those infrastructures increasingly incorporate autonomous agents transacting with one another through smart contracts (Hayes, 2026; Langley and Leyshon, 2026), then human beings may become progressively residual to the process of financial coordination. In this way, a question that philosophers have long asked about technology acquires a new register. Might technofinance contribute to what Anders (2025/1956) called 'the obsolescence of the human'?

Announcements of human obsolescence have a poor track record in economic commentary, and current evidence – the labour-intensive data work behind every 'autonomous' system, the human overlays retained across quantitative finance – counsels scepticism. But the prospect nevertheless informs contemporary discourse, shaping optimistic visions of post-work abundance and autonomous corporations as well as darker ruminations (Amodei, 2024; Bostrom, 2024; Poliks and Trillo, 2025; Milei, 2026). How one receives these depends, in the end, on how one reads the history of nihilism (Samman, 2026). We do not resolve the question. We instead register it as the empirical horizon of the thesis: the point at which the technologization of finance gives way to a world in which technofinance operates *without us.* The consequences of crossing such a threshold would not be not only social and political, but anthropological and metaphysical (Baudrillard, 2010: 79–82).

Conclusion

Finance has always been a technology, at least in the social sense. From the earliest credit instruments to the most elaborate modern derivatives, its fundamental task has been to coordinate present action under conditions of radical uncertainty regarding the future. This task has traditionally been accomplished through narratives, conventions, institutions, and professional expertise – so many symbolic rituals and social devices for rendering the future investable. But in its contemporary form, finance has crossed a threshold. It no longer merely relies on technologies to enhance social coordination; it increasingly operates *as* a technology in and of itself, one that is infrastructural rather than episodic, recursive rather than representational, and oriented less toward narrating futures than toward engineering the present conditions of coordinated action. The tropes through which the field has tried to name this transformation (fusion, disappearance, embedding) register a genuine theoretical difficulty. The distinction between the digital and the financial is coming apart before our very eyes (Samman et al., 2022: 103). But describing this dissolution is not the same as analysing the configuration taking its place.

Technofinance names that configuration. It identifies a shift not only in the tools that finance employs, but in the mode through which financial coordination is accomplished. When the coordination of investment comes to depend primarily on engineered infrastructures that turn streams of signals into coordinated action, automatically and at scale, finance becomes technological in a sense that exceeds both the social-technology view and the fintech thesis. It becomes a sociotechnical regime of temporal coordination in which the future is technologically formatted rather than merely narrated. This is what we mean by technofinance. Finance technologized; finance becoming tech.

In the social-technology regime, coordination moved through promise, judgement, institutional trust, and narrative commitment to imagined futures. In the technofinance

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regime, it moves through protocol, signal, systemic operability, and the processing of actionable cues. The first regime asked what long-term world an asset promised. The second asks what the system demands now. The long term has not disappeared. Pension funds still exist, infrastructure bonds still carry thirty-year maturities, venture capital still bets on distant 10x returns. But these practices increasingly unfold within technical environments that impose their own temporal and coordinative pressures. Even the most patient investor must now navigate dashboards, answer alerts, and reckon with the recursive dynamics of a system built for continuous operation. The regime of technofinance is not one anyone can fully opt out of.

The implications reach well beyond the study of finance and society. If the conditions under which futures become financially tractable are themselves technologically produced, then the design of financial infrastructure is a form of governance over human possibility. Who designs the protocols, platforms, interfaces, and ranking systems through which finance operates becomes a question of political economy in the deepest sense. It concerns not only the distribution of wealth but the distribution of futurity itself, the capacity to shape which futures appear plausible, investable, and worth pursuing.

References

Abolafia, M.Y. (2020) *Stewards of the Market: How the Federal Reserve Made Sense of the Financial Crisis*. Harvard University Press.

Aitken, R. (2017) 'All data is credit data': Constituting the unbanked. *Competition & Change*, 21(4): 274–300.

Akrich, M. (1992) The de-scription of technical objects. In: Bijker, W.E. and Law, J. (eds.) *Technology/Building Society: Studies in Sociotechnical Change*, 205–24. MIT Press.

Alami, I., Alves, C., Bonizzi, B., Kaltenbrunner, A., Koddenbrock, K., Kvangraven, I., and Powell, J. (2023) International financial subordination: A critical research agenda. *Review of International Political Economy*, 30(4): 1360–86.

Amodei, D. (2024) Machines of loving grace: How AI could transform the world for the better. Section 5: Work and meaning. https://darioamodei.com/essay/machines-of-loving-grace#5-work-and-meaning.

Anders, G. (2025/1956) *The Obsolescence of the Human*. Translated by C. Müller. University of Minnesota Press.

Appadurai, A. (2016) *Banking on Words: The Failure of Language in the Age of Derivative Finance*. University of Chicago Press.

Baudrillard, J. (2010) *The Agony of Power*. Translated by A. Hodges. Semiotext(e).

Beckert, J. (2016) *Imagined Futures: Fictional Expectations and Capitalist Dynamics*. Harvard University Press.

Bernards, N. (2019) The poverty of fintech? Psychometrics, credit infrastructures, and the limits of financialization. *Review of International Political Economy*, 26(5): 815–38.

Bernards, N., and Campbell-Verduyn, M. (2019) Understanding technological change in global finance through infrastructures. *Review of International Political Economy*, 26(5): 773–89.

Beunza, D. (2019) *Taking the Floor: Models, Morals, and Management in a Wall Street Trading Room*. Princeton University Press.

Borch, C. (2026) *Trading Beyond Understanding: Machine Learning, Risk, and Markets*. Stanford University Press.

Borch, C., and Min, B.H. (2023) Machine learning and social action in markets: From first- to second-generation automated trading. *Economy and Society*, 52(1): 37–61.

Bostrom, N. (2024) *Deep Utopia: Life and Meaning in a Solved World*. Ideapress Publishing.

Brandl, B., and Dieterich, L. (2023) The exclusive nature of global payments infrastructures: The significance of major banks and the role of tech-driven companies. *Review of International Political Economy*, 30(2): 535–57.

Braun, B. (2020) Central banking and the infrastructural power of finance: The case of ECB support for repo and securitization markets. *Socio-Economic Review*, 18(2): 395–418.

Brodie, P. (2023) Data infrastructure studies on an unequal planet. *Big Data & Society*, 10(1).

Callon, M. (ed.) (1998) *The Laws of the Markets*. Blackwell.

Campbell-Verduyn, M. (2018) *Bitcoin and Beyond: Cryptocurrencies, Blockchains and Global Governance*. Routledge.

Carruthers, B.G. (2022) *The Economy of Promises: Trust, Power, and Credit in America*. Princeton University Press.

Carruthers, B.G., and Kim, J.-C. (2011) The sociology of finance. *Annual Review of Sociology*, 37: 239–59.

Cheney-Lippold, J. (2017) *We Are Data: Algorithms and the Making of Our Digital Selves*. New York University Press.

Chey, H.-K. (2026) Central bank digital currencies and the global monetary system. *Review of International Political Economy*, FirstView: 1–22. https://doi.org/10.1080/09692290.2026.2652441

https://doi.org/10.1017/fas.2026.10055 Published online by Cambridge University Press

Chu, J., Fang, C., and Lai, K.P.Y. (2025) Reshaping state-finance-tech nexus through central bank digital currencies: The case of the mBridge project. *Finance and Space*, 2(1): 281–304.
Coombs, N. (2022) Narrating imagined crises: How central bank storytelling exerts infrastructural power. *Economy and Society*, 51(4): 679–702.
Coombs, N. (2025) Infrastructural power in financial governance: Its meaning, applications, and varieties. In: Westermeier, C., Campbell-Verduyn, M. and Brandl, B. (eds.) *The Cambridge Global Handbook of Financial Infrastructure*, 37–48. Cambridge University Press.
De Filippi, P., and Wright, A. (2018) *Blockchain and the Law: The Rule of Code*. Harvard University Press.
de Goede, M. (2020) Finance/security infrastructures. *Review of International Political Economy*, 28(2): 351–68.
de Goede, M., and Westermeier, C. (2022) Infrastructural geopolitics. *International Studies Quarterly*, 66(3): sqac033.
Doganova, L. (2024) *Discounting the Future: The Ascendancy of a Political Technology*. Zone Books.
Doganova, L., Giraudeau, M., Helgesson, C.-F., Kjellberg, H., Lee, F., Mallard, A., Mennicken, A., Muniesa, F., Sjögren, E., and Zuiderent-Jerak, T. (2014) Valuation studies and the critique of valuation. *Valuation Studies*, 2(2): 87–96.
Esposito, E. (2011) *The Future of Futures: The Time of Money in Financing and Society*. Edward Elgar.
Farchy, J., Cang, A., and Burton, M. (2022) The 18 minutes of trading chaos that broke the nickel market. Bloomberg, 14 March.
Fields, D. (2022) Automated landlord: Digital technologies and post-crisis financial accumulation. *Environment and Planning A: Economy and Space*, 54(1): 160–81.
Fourcade, M., and Healy, K. (2017) Seeing like a market. *Socio-Economic Review*, 15(1): 9–29.
Fourcade, M., and Healy, K. (2024) *The Ordinal Society*. Harvard University Press.
Gabor, D., and Brooks, S. (2017) The digital revolution in financial inclusion: International development in the fintech era. *New Political Economy*, 22(4): 423–36.
Gamerdinger, A. (2025) Moral authority over risk classifications: How data professionals shape the uneven algorithmization of life insurance. *Socio-Economic Review*, 23(4): 1661–82.
Godechot, O. (2017) *Wages, Bonuses, and Appropriation of Profit in the Financial Industry: The Working Rich*. Routledge.
Gruin, J. (2019) Financializing authoritarian capitalism: Chinese fintech and the institutional foundations of algorithmic governance. *Finance and Society*, 5(2): 84–104.
Hansen, K.B. (2021) Model talk: Calculative cultures in quantitative finance. *Science, Technology, & Human Values*, 46(3): 600–627.
Hansen, K.B. (2025) The stack inversion: On algo-centrism and the complex architecture of automated financial securities trading systems. *Science, Technology, & Human Values*, 50(5): 932–61.
Hansen, K.B., and Borch, C. (2022) Alternative data and sentiment analysis: Prospecting non-standard data in machine learning-driven finance. *Big Data & Society*, 9(1).
Hansen, K.B., and Souleles, D. (2023) Expectations, competencies and domain knowledge in data- and machine-driven finance. *Economy and Society*, 52(3): 421–48.
Hayes, A. (2019) The socio-technological lives of Bitcoin. *Theory, Culture & Society*, 36(4): 49–72.
Hayes, A. (2020) Enacting a rational actor: Roboadvisors and the algorithmic performance of ideal types. *Economy and Society*, 49(4): 562–95.
Hayes, A. (2026) The algorithmic principal: Agencement, infrastructure, and the material construction of AI economic sovereignty. *Journal of Cultural Economy*, FirstView: 1–29. https://doi.org/10.1080/17530350.2026.2637713.
Hayes, A.S. (2021) The active construction of passive investors: Roboadvisors and algorithmic 'low-finance'. *Socio-Economic Review*, 19(1): 83–110.
Hayes, A.S., and Ben-Shmuel, A.T. (2024) Under the finfluence: Financial influencers, economic meaning-making and the financialization of digital life. *Economy and Society*, 53(3): 478–503.
Hendrikse, R., Bassens, D., and van Meeteren, M. (2018) The Appleization of finance: Charting incumbent finance's embrace of FinTech. *Finance and Society*, 4(2): 159–80.
Holmes, D.R. (2013) *Economy of Words: Communicative Imperatives in Central Banks*. University of Chicago Press.
Knorr Cetina, K., and Bruegger, U. (2002) Global microstructures: The virtual societies of financial markets. *American Journal of Sociology*, 107(4): 905–50.
Knorr Cetina, K., and Preda, A. (eds.) (2004) *The Sociology of Financial Markets*. Oxford University Press.
Langenohl, A. (2026) Finance becoming (tech) in socio-technical interaction orders: The case of digital everyday financial practices. *Finance and Society*, FirstView: 1–18. https://doi.org/10.1017/fas.2026.10038.
Langley, P., and Leyshon, A. (2017) Platform capitalism: The intermediation and capitalisation of digital economic circulation. *Finance and Society*, 3(1): 11–31.
Langley, P., and Leyshon, A. (2021) The platform political economy of FinTech: Reintermediation, consolidation and capitalisation. *New Political Economy*, 26(3): 376–88.

https://doi.org/10.1017/fas.2026.10055 Published online by Cambridge University Press

Langley, P., and Leyshon, A. (2025) Embedded finance and FinTech disappearance. *Finance and Society*, FirstView: 1–10. https://doi.org/10.1017/fas.2025.10020.
Langley, P., and Leyshon, A. (2026) *FinTech Capital: The Digital Transformation of Everyday Money and Finance*. Zone Books.
Luitse, D., and Denkena, W. (2021) The great transformer: Examining the role of large language models in the political economy of AI. *Big Data & Society*, 8(2).
MacKenzie, D. (2006) *An Engine, Not a Camera: How Financial Models Shape Markets*. MIT Press.
MacKenzie, D. (2021) *Trading at the Speed of Light: How Ultrafast Algorithms Are Transforming Financial Markets*. Princeton University Press.
MacKenzie, D., Muniesa, F., and Siu, L. (eds.) (2007) *Do Economists Make Markets? On the Performativity of Economics*. Princeton University Press.
MacKenzie, D., and Pardo-Guerra, J.P. (2014) Insurgent capitalism: Island, bricolage and the re-making of finance. *Economy and Society*, 43(2): 153–82.
Mann, M. (1984) The autonomous power of the state: Its origins, mechanisms and results. *European Journal of Sociology*, 25(2): 185–213.
Maurer, B. (2015) *How Would You Like to Pay? How Technology Is Changing the Future of Money*. Duke University Press.
McGowan, A., MacKenzie, D., and Caliskan, K. (2024) Intermediaries, mediators and digital advertising's tensions. *Journal of Cultural Economy*, 17(5): 513–31.
Milei, J. (2026) Javier Milei: Argentina invites AI to free itself. Financial Times, 3 June.
Millo, Y., Spence, C., and Xu, R. (2024) Algorithmic self-referentiality: How machine learning pushes calculative practices to assess themselves. *Accounting, Organizations and Society*, 113: 101567.
Moor, L. (2021) *Communication and Economic Life*. Polity Press.
Moor, L., and Lury, C. (2018) Price and the person: Markets, discrimination, and personhood. *Journal of Cultural Economy*, 11(6): 501–13.
Muniesa, F. (2014) *The Provoked Economy: Economic Reality and the Performative Turn*. Routledge.
O'Dwyer, R. (2019) Cache society: Transactional records, electronic money, and cultural resistance. *Journal of Cultural Economy*, 12(2): 133–53.
O'Neil, C. (2016) *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*. Crown Publishers.
Ortiz, H. (2014) The limits of financial imagination: Free investors, efficient markets, and crisis. *American Anthropologist*, 116(1): 38–50.
Pardo-Guerra, J.P. (2019) *Automating Finance: Infrastructures, Engineers, and the Making of Electronic Markets*. Cambridge University Press.
Pasquale, F. (2015) *The Black Box Society: The Secret Algorithms That Control Money and Information*. Harvard University Press.
Petry, J. (2021) From national marketplaces to global providers of financial infrastructures: Exchanges, infrastructures and structural power in global finance. *New Political Economy*, 26(4): 574–97.
Piketty, T. (2014) *Capital in the Twenty-First Century*. Translated by A. Goldhammer. Belknap Press.
Pinzur, D., and Duterme, T. (2025) Market devices and infrastructures: How they differ and why it matters. *Journal of Cultural Economy*, 18(2): 212–29.
Poliks, M., and Trillo, R.A. (2025) *Exocapitalism: Economies With Absolutely No Limits*. Becoming Press.
Rella, L. (2020) Steps towards an ecology of money infrastructures: Materiality and cultures of Ripple. *Journal of Cultural Economy*, 13(2): 236–49.
Rodima-Taylor, D., and Grimes, W.W. (2019) International remittance rails as infrastructures: Embeddedness, innovation and financial access in developing economies. *Review of International Political Economy*, 26(5): 839–62.
Rona-Tas, A., and Hiss, S. (2011) Forecasting as valuation: The role of ratings and predictions in the subprime mortgage crisis in the United States. In: Beckert, J. and Aspers, P. (eds.) *The Worth of Goods: Valuation and Pricing in the Economy*, 222–46. Oxford University Press.
Sadowski, J. (2020) *Too Smart: How Digital Capitalism is Extracting Data, Controlling Our Lives, and Taking Over the World*. MIT Press.
Samman, A. (2026) *Currency of Nihilism*. Stanford University Press.
Samman, A., Boy, N., Coombs, N., Hager, S., Hayes, A., Rosamond, E., Wansleben, L., and Westermeier, C. (2022) After the boom: Finance and society studies in the 2020s and beyond. *Finance and Society*, 8(2): 93–109.
Srnicek, N. (2017) *Platform Capitalism*. Polity Press.
Star, S.L. (1999) The ethnography of infrastructure. *American Behavioral Scientist*, 43(3): 377–91.
Svetlova, E. (2022) AI meets narratives: The state and future of research on expectation formation in economics and sociology. *Socio-Economic Review*, 20(2): 841–61.

https://doi.org/10.1017/fas.2026.10055 Published online by Cambridge University Press

Tan, G.K.S. (2021) Democratizing finance with Robinhood: Financial infrastructure, interface design and platform capitalism. *Environment and Planning A: Economy and Space*, 53(8): 1862–78.
Tan, G.K.S. (2025) Summoning the digital investor: Fintech apps and the shaping of everyday financial subjectivities. *Finance and Society*, First View: 1–19. https://doi.org/10.1017/fas.2025.10011.
Tooze, A. (2018) *Crashed: How a Decade of Financial Crises Changed the World*. Viking.
van der Vlist, F., Helmond, A., and Ferrari, F. (2024) Big AI: Cloud infrastructure dependence and the industrialisation of artificial intelligence. *Big Data & Society*, 11(1).
Vogl, J. (2022) *Capital and Ressentiment*. Translated by N. Solomon. Polity Press.
Wansleben, L. (2013) *Cultures of Expertise in Global Currency Markets*. Routledge.
Wansleben, L. (2023) *The Rise of Central Banks: State Power in Financial Capitalism*. Harvard University Press.
Westermeier, C. (2020) Money is data: The platformization of financial transactions. *Information, Communication & Society*, 23(14): 2047–63.
Westermeier, C. (2024) The digital euro: A materialization of (in)security. *Review of International Political Economy*, 31(5): 1569–92.
Westermeier, C., Campbell-Verduyn, M., and Brandl, B. (eds.) (2025) *The Cambridge Global Handbook of Financial Infrastructure*. Cambridge University Press.
Westermeier, C., and de Goede, M. (2025) Payments and hegemony: Infrastructural sedimentation, reach, and disposition. In: Westermeier, C., Campbell-Verduyn, M. and Brandl, B. (eds.) *The Cambridge Global Handbook of Financial Infrastructure*, 88–100. Cambridge University Press.
Wójcik, D. (2021a) Financial geography I: Exploring FinTech – Maps and concepts. *Progress in Human Geography*, 45(3): 566–76.
Wójcik, D. (2021b) Financial geography II: The impacts of FinTech – Financial sector and centres, regulation and stability, inclusion and governance. *Progress in Human Geography*, 45(4): 878–89.
Yeung, K. (2018) Algorithmic regulation: A critical interrogation. *Regulation & Governance*, 12(4): 505–23.
Zuboff, S. (2019) *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. Profile Books.
Zuckerman, E.W. (2012) Construction, concentration, and (dis)continuities in social valuations. *Annual Review of Sociology*, 38(1): 223–45.

Cite this article: Hayes, A., Samman, A., and Westermeier, C. (2026) On technofinance. *Finance and Society*, 12, 127–145. https://doi.org/10.1017/fas.2026.10055

https://doi.org/10.1017/fas.2026.10055 Published online by Cambridge University Press