The Social Layer:
An Ethnography of Two Cryptocurrency Communities in the United States

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ABSTRACT

In the years since the financial crisis and the emergence of Occupy Wall Street, challenges to American economic governance have increasingly taken place on the internet rather than in the streets. Indeed, cryptocurrency communities such as Bitcoin and Ethereum have arguably become the vanguard of popular opposition to U.S. monetary policy and financial regulation, though they are rarely recognised as such by academics or the media. This thesis contends that these communities are not simply protest movements—or worse, unbridled gamblers—but rather serious experiments in alternative forms of governance, which both contest existing structures of authority, expertise, and resource distribution in the United States and create new possibilities for accumulating wealth.

This thesis draws on two years of ethnographic fieldwork and diverges from previous scholarship in attempting to think *with* the Bitcoin and Ethereum communities rather than against them. It highlights the lively, polyvocal sociality that has developed around blockchains and examines the political, economic, regulatory, and social issues to which the communities regularly respond. It details the way that Bitcoin and Ethereum organise social relationships in ways that intentionally diverge from existing economic institutions and explores the implications of this for subjects such as financial inclusion, value, power, and community. The thesis also situates Bitcoin and Ethereum in an extended history of quarrels over monetary policy and financial regulation in the United States, identifying frustrations stemming from the development of securities regulations in the twentieth century and locating their antecedents in the Greenbackers and populists of the nineteenth century. Bitcoin and Ethereum, the thesis concludes, represent popular contributions to debates on economic governance and inequality that often go unheard but which nonetheless have pressing implications for society and policy in America and beyond.

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LIST OF ACRONYMS & ABBREVIATIONS

ADL	Anti-Defamation League
AMA	Ask me anything
AMM	Automated market maker
ASIC	Application-specific integrated circuit
COVID-19	Coronavirus disease 2019
DAO	Decentralised autonomous organisation
Dapp	Decentralised application
DeFi	Decentralised finance
Degen	Degenerate
ERC-20	Ethereum Request For Comments 20
FDV	Fully-diluted value
FOMO	Fear of missing out
HFSP	Have fun staying poor
ICO	Initial coin offering
IPO	Initial public offering
KYC	Know Your Customer
LP	Liquidity Provider
Mempool	Memory pool
MMT	Modern Monetary Theory
Multi-sig	Multi-signature wallet
NFA	Not financial advice
NFT	Non-fungible token

NGMI   Not gonna make it

RFC   Request For Comments

SaaS   Software-as-a-service

SEC   United States Securities and Exchange Commission

SPLC   Southern Poverty Law Center

TARP   Troubled Asset Relief Program

UTXO   Unspent transaction output

WAGMI   We're all gonna make it

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A NOTE ON STYLE

In the thesis, I follow the convention of writing the names of currencies in lowercase letters. Unfortunately, this convention causes confusion in writings on cryptocurrencies because many crypto assets share their names with the system which issues them. For example, the Bitcoin blockchain has an eponymous currency. Thus, I use *bitcoin* when referring to the currency, and I use *Bitcoin* when referring to the blockchain or network.

INTRODUCTION

On a January day in the midst of The Great Recession, Satoshi Nakamoto mined the first Bitcoin block. Forever inscribed in this so-called genesis block is a reference to an article in the London-based newspaper, *The Times*: "The Times 03/Jan/2009 Chancellor on brink of second bailout for banks" (Blockchain.com n.d.). Having already delivered one bailout, the British chancellor in question, Alistair Darling, was to "decide within weeks whether to pump billions more into the economy" in an attempt to reverse a "lending drought" precipitated by the financial crisis (Elliot & Duncan 2009).

Days after the publication of *The Times* article, the U.K. government did indeed launch further assistance to banks (Wong 2009). Meanwhile, in the U.S., Congress voted to release $350 billion to the Treasury Department—half of the $700 billion total that funded the Troubled Asset Relief Program (TARP) (Goldman 2009). In America, the years that followed these interventions saw countless politicians' promises to prevent a recurrence of the crisis. Occupy Wall Street rose and fell, and Americans stared down shifting prospects and insecure finances. As for Bitcoin, its small group of adherents flourished, with some creating new iterations of Nakamoto's original design. Bitcoin soon spawned "crypto," an entire "ecosystem" of blockchain-based technologies and communities.

By the spring of 2020, just over eleven years and nearly 630,000 blocks after the mining of the genesis block, global economic circumstances appeared ominously similar to those in 2009. As the COVID-19 pandemic began to unfold, speculation mounted about the financial devastation it could inflict upon businesses, citizens, and the economy writ large. Liquidity was once again drying up in the face of uncertainty and the U.S. government was poised to intervene in the American economy. When block 629,999 was mined that spring, it—like the genesis block—contained a headline: "NYTimes 09/Apr/2020 With $2.3T Injection, Fed's Plan Far Exceeds 2008 Rescue" (Farrington 2020).

The inclusion of the *New York Times* headline in the block was only one indication that, for the members of the crypto community—my interlocutors in this thesis—things had come full circle.

They saw the interventions of the U.S. government and the Federal Reserve not as measures of economic relief but as "financial tyranny" (ibid). The "money printer" had been dusted off— turned on once again to grease the wheels of the economy. But, crypto people asked, for whose benefit and at what cost?

Increasingly, this thesis argues, challenges to American economic governance are taking place on the internet rather than in the streets. Though Occupy Wall Street may seem a distant memory, popular opposition to American economic policy has persisted—strengthened, even— in the years since the financial crisis. Indeed, this thesis contends that cryptocurrency communities such as Bitcoin and Ethereum are at the forefront of this opposition. However, they are often dismissed as amateurish architects of hopeless utopian alternatives—or, more malevolently, as gamblers or scammers. It is perhaps for this reason that anthropologists and sociologists have not taken the crypto community particularly seriously. The body of anthropological literature on the crypto community remains small, and few anthropologists writing about the community have undertaken the kind of long-term, immersive fieldwork for which anthropology is known. The result of this has been that the existing scholarship on crypto is plagued by a tacit embrace of (usually negative) narratives and assumptions propagated by regulators, financiers, and the media. The academic literature has likewise relied upon broad analytical terms such as neoliberalism, capitalism, and financialisation in ways that obliterate the complexity of crypto and imply that it is simply a predictable outcome of these phenomena. But capitalism is far from homogenous (Empson 2019) and, this thesis contends, crypto is anything but predictable. Therefore, the salience of the above terms should not be taken for granted.

This thesis draws on two years of ethnographic fieldwork and departs from the existing scholarship in attempting to think *with* the crypto community rather than against it (Coleman 2015; Lepselter 2016). It examines two sub-communities, Bitcoin and Ethereum, and reveals that they are making critically important contributions to debates on economic governance and inequality in America. Both communities, I show, have cultivated a lively, polyvocal sociality around their blockchains and are deeply engaged with a variety of political, economic, regulatory, and social issues. Likewise, the thesis underscores the reflexivity of both

communities as they navigate the building of their alternative economic ecosystem, its relation to the mainstream economy, and the inevitable challenges that arise along the way.

The thesis title—*The Social Layer*—also references this reflexivity. The "social layer" is a term that my interlocutors used to describe the social and cultural dimensions of crypto, which plays on the "layers" of technical architecture that are implicated in blockchain networks, the technology on which cryptocurrencies are based. For my interlocutors, the social layer was no less complicated than its technical counterparts—they often found it intensely interesting but somewhat mysterious. Their thoughtful attempts to analyse the social layer through engagement with philosophy, social theory, and heterodox economics are evidenced in innumerable blog posts, social media threads, opinion pieces, and, of course, the pages of this thesis. I also chose this term for the thesis title as it indicates that, for crypto people, the social and technical are entangled (Pardo-Guerra 2019).

The remainder of this introduction proceeds in three parts. The first section provides critical context for the rest of the thesis. It details the ins and outs of blockchain technology, defines technical and analytical terms, and describes the crypto community's members. Section two describes my fieldwork circumstances and methodologies. It offers insights into conducting fieldwork in decentralised, largely digital communities and probes the construction of deserving and undeserving subjects in anthropology. The third and final section provides an overview of my theoretical approach to studying the crypto community and an outline of the thesis. It describes the contributions the thesis aims to make to anthropology and the study of crypto communities more generally.

I.   The fundamentals of crypto: terminology, technology, & crypto people

When I started this project in the fall of 2018, the crypto community was around nine months into "crypto winter," a bear market during which prices—and morale—were low. My own involvement with the community had started a year earlier, a heady period in which crypto prices rose to new highs, attracting the attention of the public and regulators alike. But it was not the skyrocketing prices that brought me to crypto. Instead, whilst completing the final months of a

master's degree at the LSE, I applied for an internship at the London office of a start-up which planned to offer a crypto-twist on an older concept—local currencies. Initially, it was the experiment in alternative currencies that caught my attention, but I soon became fascinated with the project's crypto component. During my daily commute across London to the offices where the internship was based, I often read the news, which I gradually noticed contained more and more articles about crypto as prices climbed that summer. What struck me the most about crypto was what I perceived to be its bald-faced provocation of the state. How could the state allow crypto to challenge its monopoly on currency issuance? When I arrived in the office, I posed questions like this to my colleagues. Surely, the state will eventually shut crypto down, I told them in disbelief. Not possible, they would reply with a grin.

As a master's student in social anthropology, it didn't take long for me to turn to the discipline for answers. After conducting a search, however, I found little anthropological literature on crypto—save for Maurer, Nelms, and Swartz's article on Bitcoin that had been published four years prior (Maurer et al. 2013). It was clear to me that there was room to contribute to the study of crypto and I began to prepare applications for doctoral programs in anthropology. In the meantime, however, I realised that I had much to learn and sought a job that could help me become better acquainted with the community and its technologies.

I landed at CoinDesk, a New York City-based crypto media start-up and started a job as a reporter in January of 2018. During my early days at CoinDesk, I often felt as though I had been plunged into the deep end as I tried to navigate both journalism and the crypto community with little experience. Over time, and thanks to the patient support of my colleagues, I slowly came to grasp the particulars of the blockchain and became acquainted with the community that I would go on to study for the next five years as a doctoral student. In the following sections, I define a few terms that I learned in those early days and which recur throughout this thesis. I also provide technical overviews of Bitcoin and Ethereum which foreground further discussion of each blockchain in later chapters. Lastly, I introduce the "crypto people" whose words, humour, aspirations, and grievances give shape to the arguments presented in this thesis.

The terms of this thesis

The crypto community is somewhat notorious for its jargon, which tends to alternate between the technical and the absurd. In the interest of simplicity, I define and explain crypto slang and jargon as and when it appears in this thesis. However, a few clarifications are required from the outset. The term "crypto" was originally an abbreviation for cryptography. Over the years, it was appropriated as a contraction for "cryptocurrency," the name given to blockchain-based digital currencies. However, as blockchains have come to host more than currencies, "crypto" has become a catch-all term for blockchain-based technologies, assets and the community that coalesces around them. One might say for example that one is "*in* crypto," meaning one considers oneself to be part of the community; that one has "*bought* crypto," meaning one has purchased crypto assets; or that one "*works on* crypto," meaning one works on the technology.

One caveat is necessary to mention, however. "Crypto" generally refers only to assets, technologies, and communities that make use of "public" blockchains, like Bitcoin and Ethereum. These blockchains are public in the sense that anyone can use them and participate in the running of them. Private blockchains—also called enterprise blockchains—are the result of corporate attempts to use some aspects of blockchains like Bitcoin and Ethereum while shedding other, arguably critical, components. For example, these blockchains tend to restrict who is allowed to use and participate in the operations of the network. I set these aside here, as they do not feature in this thesis.

"Crypto assets" is yet another umbrella term which I use to refer to the various types of property that exist on blockchains. This includes not only property that is intended to function in a money-like way, often called crypto*currencies* or "coins," but also property that confers rights or serves to represent a digital or non-digital object, usually referred to as "tokens." When making general claims about crypto and the people who use it, I refer to "crypto people," the "crypto community," and the "crypto ecosystem." My usage of the terms outlined in this section attempts to adhere, as closely as possible, to the ways that my interlocutors use them.

Bitcoin basics

The blockchain was invented by Satoshi Nakamoto, an anonymous individual or group of individuals about whom little is known. Not long after releasing the Bitcoin software, Nakamoto ceased his work on Bitcoin and disappeared, telling a former contributor to the project that he had "moved on to other things" (Pereira 2024). Nakamoto's blockchain was revolutionary because of the way it combined existing technologies to overcome a key obstacle in the implementation of digital money—the double spend problem. The problem pertains to the ease with which digital information can be copied. The replicability of digital data means that if it is used to represent money, it is necessary to have a mechanism that ensures digital "coins" cannot be spent multiple times. Before the invention of Bitcoin, the only means of preventing double spending was the use of third-party transaction processors, such as banks or fintech companies (Nakamoto 2008). With the Bitcoin blockchain, Nakamoto introduced a decentralised, consensus-based solution to the double spend problem that routed around these intermediaries.

As I show later in this thesis, the blockchain is more than just a means of facilitating transactions online; it is an "infrastructure for the social" (Pardo-Guerra 2019) which codifies certain types of "relational work" (Zelizer 2012). It is the product of sustained reflections on society and the social relationships through which social institutions are constituted. It is a system that is carefully calibrated to distribute power, undermine censorship, and disincentivise corruption. Above all, it is an opt-in, consensus-based system that aims to provide an open, verifiable record of events that no one person or entity can manipulate for their own ends. Remarkably, though it is not without flaws, the blockchain works. Below, I detail precisely *how*.

The Bitcoin blockchain is a distributed network that has an eponymous "native" cryptocurrency. Anyone can run the Bitcoin software, view its source code, or make a copy of it to modify the software themselves because Bitcoin is "open source." Multiple versions of the Bitcoin software circulate. "Bitcoin Core" is the reference implementation of the Bitcoin software—that is, it is the canonical standard against which all other versions of the Bitcoin software are developed. The developers who work on this authoritative version of the software are called Bitcoin Core

developers. This group, which anyone with the relevant technical knowledge can join, maintains and proposes changes to the Bitcoin software.

Every transaction that is executed on the Bitcoin network is recorded in a shared record—often called a ledger—which is auditable and tamper-proof. The ledger's entries are permanent and searchable. Thus, transactions between Bitcoin users are not simply "ephemeral arm's-length exchanges," but rather "forms of relation-making" (Pardo-Guerra 2019: 108). They document connections between users, which can be resurfaced in attempts to unmask them by law enforcement or others.[1] However, Bitcoin users do not have "identities" on the network in the familiar sense—there are no usernames, for example. Instead, users on the network each have two cryptographic keys that are used for sending and receiving bitcoins: a public key and a private key. The public key functions as an address—it is the information that a recipient of funds provides to the sender of the funds. To initiate a transaction, users must sign it with their private key. Anyone in possession of the private key can move the funds associated with the corresponding public key; as a result, the private key must be kept secret to avoid theft. Notably, though Bitcoin makes use of the aforementioned cryptographic keys, the information sent over the Bitcoin network is not encrypted, as is often mistakenly supposed. Similarly, the idea that Bitcoin provides its users with anonymity is another common misunderstanding—in fact, it affords them pseudonymity.

Crypto people often compare spending bitcoin to spending cash. Just as one might combine multiple bills to make up the total dollar value due for payment, Bitcoin combines unspent transaction outputs (UTXOs); and just as you would expect to receive change if your bills amounted to more than the value due, Bitcoin provides change in the form of new UTXOs. Users generally initiate transactions and manage their bitcoin (and other crypto assets) through crypto wallets, which hold their cryptographic keys and provide an interface for interacting with the blockchain. Not all wallets are created equal, however. Many wallets enable users to manage their own keys and funds, though some cede responsibility to a third party, such as a centralised

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[1] For example, those who engage in illegal activity on the blockchain are often unmasked by their interaction with centralised exchanges, which they use to convert cryptocurrency into fiat money. These exchanges are required to collect information about their users and can be subpoenaed by law enforcement agencies, assuming they are compliant.

cryptocurrency exchange. Likewise, wallets come with varying degrees of vulnerability to hacks, with "hot wallets"—those connected to the internet—considered more risky than "cold" wallets, which are offline.

Once a transaction has been initiated, two sets of actors play key roles in the validation and recording of transactions on the Bitcoin network: nodes and miners. Together, nodes and miners must reach an agreement, or "consensus," about what the most recent version of the ledger looks like. Nodes are computers that run the Bitcoin software and keep a full or partial record of every transaction ever carried out on its blockchain. Anyone can operate a node and Bitcoin's network comprises thousands located around the world. Full nodes, which maintain a full record of transactions going back to those in the genesis block, verify that transactions, and the blocks in which they are recorded, abide by the network's rules. This ensures—for example—that no double spending has taken place (Bitcoin Wiki n.d.). Nodes also broadcast valid transactions to the wider network and add them to their individual memory pools or "mempools," where they will be held while they await confirmation (CoinMarketCap n.d.).

Meanwhile, miners aggregate transactions from the mempools into blocks. Bitcoin blocks are of a fixed size, which determines the number of transactions they can contain. However, these blocks are not simply added to the blockchain whenever a miner composes them. Instead, in order to "find" valid blocks, miners carry out computational work with the aim of computing a "hash" of the "block header"—a field in the block which contains data about its transactions— that meets certain criteria. A hash is the result of a cryptographic hash function; when data is input into a hash function, the function returns the data in the form of a unique output of a particular length—even if the original data was much longer. It is not possible to discern what the input was from the output of the hash function, nor is it possible to engineer a particular output. However, the same input should return the same hash every time, and any changes to the input should yield an entirely new hash (Walker 2024a).

After a hash of the block's data has been made, it is translated into an integer value (ibid). For the block to be valid, the integer must be below a target number which is set and periodically adjusted by the network. This target number helps to manage the time that passes between the

mining of each block, regulating it such that blocks are mined roughly ten minutes apart (Walker 2024b). Achieving a hash below the target number is essentially a game of chance—an energy-intensive strategy that relies on trial and error. With the hope of generating a winning hash, miners change the nonce—a number contained in the block header—to rapidly produce new hashes. When a miner is successful, their winning hash acts as "proof of work." Their block is subsequently added to the blockchain and the news is communicated to the network's nodes who verify the validity of the block and update their copies of the shared record (Walker 2024c). The transactions within the mined block are considered confirmed and the miner receives the "block reward" and transaction fees for their efforts. Transaction fees are paid by the users who initiate the transactions in the block and vary according to the byte size of their transaction. Users may also choose to increase the fee—making it more attractive to miners—if they wish to accelerate the confirmation of their transaction (River n.d.). All transactions are irreversible.

In short, rather than relying on an intermediary, Bitcoin distributes the power to verify and record transactions amongst multiple stakeholders in the network, who fulfil roles that anyone with the relevant knowledge and resources can hold. Similarly, the presence of many miners contributes to Bitcoin's censorship resistance. A miner can choose to censor a transaction by declining to include it in a block, but cannot prevent other miners from including the transaction in their blocks (Shinobi 2024).

It is through block rewards that the creation of new bitcoins takes place, though these rewards are halved every 210,000 blocks. The current block reward is just over 3 bitcoins—meaning that approximately 3 new bitcoins are created with every block. The predictability of block rewards means that Bitcoin's supply inflates according to a predictable schedule. Importantly, though, the supply of bitcoins is capped at 21 million coins, a feature which is enforced via Bitcoin's code. Why 21 million? In emails with early collaborators, Nakamoto described this choice as "an educated guess"— "something that would make prices similar to existing currencies" if all went well (Malmi & Nakamoto n.d.). In theory, this supply cap could change if the network's participants reached a consensus on such a decision. However, this is extremely unlikely—the predictable scarcity that results from the fixed supply cap appeals to many Bitcoin adherents and any change to it would likely undermine confidence in the network and the value of its currency.

Mining is the means through which the Bitcoin network is secured. This energy-intensive process is facilitated by application-specific integrated circuit (ASIC) chips, which are used in other industries such as gaming and artificial intelligence. The amount of computational work that miners must do to find a new block makes it extremely costly for anyone who wishes to "attack" Bitcoin by reversing transactions and rewriting blocks. The probability that such an attack could occur is extremely low unless the attacker controls 51% of the total computational power of the network. In other words, there is a "real-world" electricity cost to attacking Bitcoin through the seizure of the majority of its computing power, and it is prohibitively expensive for most. More specifically, recent estimates hypothesise that an attacker would need more than $20 billion to acquire the necessary mining hardware to attack Bitcoin—something which would outstrip available supplies (James 2024).

In the early days of Bitcoin, it was possible to use a regular computer to carry out mining work. During my fieldwork, I even met people who nostalgically recounted how their hobby mining set-ups nearly set their homes on fire. Over the years, however, mining has become increasingly industrial and is often carried out by mining pools that pool resources together (Calvão 2019). Though many Bitcoiners worry that this has introduced an element of centralisation into the network, others point out that the miners are disincentivised from attacking the network because they make costly investments in ASIC chips and other facilities. Likewise, since mounting an attack on the network would decrease the value of its currency—and therefore the value of the miners' profits—miners are unlikely to act nefariously even if they could assemble the necessary resources for an attack (Lopp 2016).

To summarise the rather technical information above in more concise terms, Bitcoin is an open, distributed network that facilitates transactions in its currency of the same name. These transactions are recorded on a shared ledger, which anyone can audit. The network's software was originally developed by Satoshi Nakamoto, who has since disappeared. It is now maintained by a group of developers who propose changes to the code. Transactions on the network are packaged into blocks by miners who compete to add the next block to the blockchain. When

miners find a valid block, their work is checked by the network nodes. The computational power that miners expend in this process is critical to the security of the network.

Understanding Ethereum

Conceived by Vitalik Buterin, the Ethereum blockchain debuted in 2015 and, as I explain later in this thesis, sought to capture the spirit of Nakamoto's design while also applying it to new use cases. Buterin, like others at the time, recognised that the blockchain could be used for more than just digital currencies and sought to create a new iteration that would allow users to create decentralised applications (dapps) and additional assets on the blockchain. He set out his vision in a 2014 white paper (Buterin 2014) and Ethereum launched the following year. In this section, I outline important features of Ethereum and identify key differences with Bitcoin.

Like Bitcoin, Ethereum is an open, decentralised, distributed, auditable network with its own native currency—ether. Though Ethereum shares key characteristics with Bitcoin, it departs from it in important ways. For example, Ethereum is "Turing-complete," meaning it can "encode any computation that can be conceivably carried out"—expanding the realm of possibility for those who wish to create new blockchain-based assets or dapps (ibid:28). Likewise, Ethereum's "native" currency, ether, does not have a fixed supply. Buterin envisioned ether less as money and more as "crypto-fuel" that is used to pay for transactions and other types of computational work carried out on the network (Buterin 2014: 13).

Ethereum is perhaps principally known for its smart contracts—programs that automatically execute when particular conditions are met and which are capable of sending, receiving, and holding crypto assets (Antonopoulos & Nugent n.d.; Ethereum.org 2024). Later in this thesis, I describe several Ethereum sub-communities which make use of smart contracts. For example, decentralised finance (DeFi) projects have utilised smart contracts to build a variety of sophisticated financial applications which aspire to function as decentralised alternatives to traditional financial services. Smart contracts are a crucial part of what makes these applications decentralised—dapps are ruled by the code of the contract(s). Sometimes, however, these contracts have bugs or trigger unintended consequences that cause their creators much

consternation. The stakes are high because, once live, smart contracts cannot be removed from Ethereum (wackerow, futantan, et al. 2024).

I previously described transacting with bitcoins as being akin to transacting with cash. As with bills or notes—paying with UTXOs often necessitates making change. Ethereum, however, utilises an account model, making it more akin to a bank account. Ethereum users have two cryptographic keys: a public key, which functions as an address, and a private key that both provides control of that address and is used to sign transactions initiated from the account associated with the address. As with a bank account, funds sent from the account are debited and funds received are credited (corwintines et al. 2024).

Ethereum previously validated transactions and secured its network using a proof-of-work consensus mechanism, like Bitcoin. In 2022, however, it adopted a new consensus mechanism—proof-of-stake—to address several concerns. Among them were apprehensions about Ethereum's ability to scale to meet the demands of its expanding user base and the amount of energy consumed by the intensive computational work carried out in proof-of-work systems.

When a user initiates a transaction on Ethereum, the transaction is first checked by an "execution client" which is responsible for ensuring that the transaction has been properly signed and that the user possesses the appropriate amount of ether. If the transaction is valid and the user's balance is sufficient, the client adds the transaction to its mempool and tells other nodes about the transaction, who then add it to their own mempools (wackerow, pettinarip, et al. 2024). Transactions waiting in the mempool are visible for anyone to see. This has proven problematic for some users in recent years as the front-running of Ethereum transactions by specialised bots has become common. As a result, some users have turned to specialised tools that route around the mempool in an effort to escape front-runners.

In proof-of-stake systems, the participants who both check new blocks against the network rules and create new blocks are called validator nodes. Validators communicate blocks to each other and check the validity of each block. Validators do not compete to add new blocks to the blockchain—instead, they are randomly chosen to "propose" the next block. A "committee" of

other validators is also randomly selected at the same time. The committee checks the validity of the proposed block against the network's rules, and if all is well, each member signals that it thinks the block should be approved through an "attestation." Finally, the block is added to the blockchain (wackerow, pettinarip, et al. 2024). Validators receive ether as a reward for proposing blocks and for participating in committees (aslikaya et al. 2024) and it is through these block rewards that new ether is created. The amount of ether that is issued as a reward varies, and is calculated against the number of participating validators and their ether stakes. Though users pay transaction fees, which are referred to as gas fees, validators do not necessarily receive them. If users choose only to pay a basic fee, the fee is "burned" or destroyed by the network (somethingstup et al. 2024), however, users can include a "tip" for the validator to incentivise faster processing (rileyannon et al. 2024). In order to act as a validator, users must "stake" ether, meaning they must deposit it into a smart contract. This stake acts as skin in the game, encouraging validators to act "honestly." If validators act maliciously, their stake is "slashed," or reduced, as a punishment. Like mining, the business of validating is not cheap—users must stake 32 ether to become a validator (wackerow, pettinarip, et al. 2024). At the time of writing, 32 ether was equivalent to $122,936.

In sum, Ethereum and Bitcoin are both examples of blockchains, though they diverge on several key technical points. While Bitcoin's miners must invest in hardware in order to participate in mining, Ethereum's validators must make a substantial deposit of ether in order to participate in the validation of new blocks. Miners carry out intensive computational work in a competition to add new blocks to the blockchain, while Ethereum's validators are randomly selected for the task of proposing a new block. Nakamoto conceived Bitcoin as a digital currency system, while Buterin conceived Ethereum as blockchain that is "open-ended by design" (Buterin 2014:34)—something that could host a wide variety of user-created decentralised applications or dapps which make use of smart contracts. These differences may seem like technical minutiae, but they have important implications for the security, decentralisation, and scalability of each network. I demonstrate later in this thesis that these details are the material out of which difference is constructed between the communities—they fuel ongoing debates about what the blockchain ought to be used for and the ends for which it is actually being used.

Crypto people

Who *are* crypto people? Throughout the course of my research, this is a question that has
surfaced many times. Answering it, however, has not always been straightforward. Privacy is
something that is celebrated, guarded, and defended in the crypto community—indeed, some
members choose to remain entirely anonymous. In order to protect the privacy of attendees,
some events that I attended during fieldwork even went as far as banning photography. In
interviews and other interactions, I was careful to respect my interlocutors' privacy and did not
try to extract information about their lives that they did not wish to provide.

It is not just their desire for privacy that makes crypto people difficult to "pin down," however.
In many ways, the crypto community resists the kinds of analytical categories that social
scientists are wont to reach for. This is largely because of its diversity. Though it is true that men
outnumber women in the community, the stereotypes that are usually associated with crypto—in
which members are assumed to be white men who are either libertarians, "tech bros," computer
nerds, or some combination of the three—are poor representations of the kinds of people who
actually participate in the community. Crypto people hail from geographically diverse origins
and are also a racially diverse group. The ideological variation in the community is wide-ranging
and does not easily reduce to left/right political dichotomies or conventional political affiliations.
For this reason, I avoid describing crypto people as anarchists or libertarians, though these terms
may capture some of their ideas, some of the time. For all of their differences, the people I met
shared at least one thing in common: they were all relatively young—falling roughly into the
generational categories of millennials, who were born before 1996, or Gen Z, who were born
before 2012.

A 2021 Pew Research survey offers several statistics which help to provide a more detailed
picture of the American crypto community. It found that 16% of Americans had "invested in,
traded, or otherwise used" cryptocurrency and that "Asian, Black, and Hispanic adults [were]
more likely than White adults" to say they had done so. As for the gender divide, 22% of men
and 10 percent of women reported using crypto. Strikingly, the survey found that nearly equal
percentages of upper income (17%), middle income (17%), and lower income (15%) Americans

had invested, traded, or used crypto. Likewise, 30% of adults between the ages of eighteen and twenty-nine and 21% of adults between the ages of thirty and forty-nine responded that they had invested, traded or used crypto (Perrin 2021). Taken together, these statistics demonstrate that the usage of crypto does not strictly reproduce more familiar social divides in America that fall along the lines of class and race.

Yet there is much that these statistics cannot reveal. Two questions that remain are, of course, why do people invest in crypto? And, why do people join the community? In a sense, the entirety of this thesis is dedicated to answering these queries. However, I preview some responses from my interlocutors here to lay the groundwork for more detailed analysis in later chapters. When I asked my interlocutors what had brought them to crypto, some recounted being attracted to the "ethos" of crypto or said that blockchain technology had captured their interest. Others described a fascination with money and its history. One such person described how his experience with a student group eventually led him to Bitcoin: "We'd talk about world politics, money, poverty, and how society should work…Money was just a fascinating concept." He was intrigued by Bitcoin because it was "not issued by a country, but by a distributed computer system." Another person I met told me that she was introduced to crypto by a roommate who was a "diehard Bitcoin person." One interviewee said he appreciated the openness of crypto's infrastructure: "there's no limits [with regard to] age or nationality."

For others still, crypto resonated because of their economic circumstances. For example, one person described how he had long been troubled by the way that economists' models failed to reflect what he perceived to be reality. After seeing a talk about Bitcoin at a bar, "things just kind of clicked." Additionally, several people described their personal experiences with inflation and the ways that this had undermined their trust in the government's ability to manage their currencies. One recalled living through "startling" inflation in southern Africa and described passing desperate people on the street who were seeking money—one held a sign that read, "I used to be a lecturer in Zimbabwe now I live on the streets, can you help me?" Another interlocutor described his fear that inflation would take hold in the United States. In an interview during the early days of the pandemic, he warned, "all of these coronavirus issues, these are all the early stages of hyperinflation." Many interlocutors had sophisticated knowledge of U.S.

monetary policy while others expressed frustration at the difficulty of achieving long-term economic security. Nearly all of them had grievances with the state and the way it governed the economy.

Some of my interlocutors worked full-time in crypto, while for others it was a partial escape from day-jobs in other sectors. Among the people I met were start-up employees, programmers, students, venture capitalists, angel investors, "refugees" from traditional finance, artists, researchers, journalists, a small-time crypto miner, two anonymous Twitter personalities, a pharmacist, an electrical engineer, an ex-law enforcement employee, and one person who claimed to be Satoshi Nakamoto. In the next section, I provide further details on the fieldwork settings in which I met these people and describe my research methods.

II.　　Fieldwork & methodological concerns

How can anthropologists effectively study decentralised communities—especially those that exist largely online? I reflected on this subject many times in the nearly two years that I spent in the field. This section attempts to summarise the answers that I arrived at—and the dilemmas that produced them—whilst conducting research in New York City and online from November 2019 to October 2021. It covers the particular methods I used in the field and considers the value of long-term, immersive fieldwork in digital settings.

When I left London for the field in the autumn of 2019, my intention was to conduct 50% of my fieldwork in offline settings and 50% in online settings. I decided to focus my attention on Bitcoin and Ethereum because they were the two best-established crypto communities. They were also widely considered to represent two diverging visions of what blockchain technology could be used for, and I was interested in the ways in which they were in dialogue with each other. I chose New York as the geographical location from which to study these communities, in part, because I already had contacts in the city due to my stint at CoinDesk. Likewise, New York was home to a thriving crypto community which had an intriguing physical proximity to its foil—Wall Street. The location of my field site was one reason this project took on a U.S.-centric focus. However, over time, another factor solidified this orientation. Despite the crypto

community's cosmopolitan, distributed nature, I found that American financial regulators were playing an extremely prominent role in shaping the community's innovations—largely, I explain later, because of their failure to provide regulatory clarity for the community.

Like many doctoral students in anthropology, I undertook language training before I left for the field—albeit in the rather unconventional language of Python. This training consisted of several introductory programming courses, which I hoped would help me understand the basic logic of coding, but proved of limited value. I also took a pre-departure trip to New York and spent three weeks considering potential field sites. In the research proposal that framed my fieldwork, I outlined plans to attend meetups and conferences, while conducting research at a crypto start-up that had expressed interest in hosting me. In crypto, meetups and conferences are two of the places where community members meet offline. Many meetups are held regularly, and some are devoted to the coverage of particular subjects—such as technical development—while others provide a place for crypto enthusiasts to gather over drinks. For the online portion of my research, I proposed, rather vaguely, to spend time in forums and on various social media sites where crypto people frequently post and communicate with each other. I regarded these offline and online sites as "nodes" in the community which had counterparts in other crypto communities around the world. Studying them, I hoped, would lend my research macro-level significance and facilitate future comparative work.

When I arrived in the field, however, I learned that the start-up was no longer willing to let me shadow its operations. Its founder explained that the company was navigating too many meetings with regulatory agencies and expressed concerns that my attendance at these meetings would jeopardise its attorney-client privilege. Likewise, the online aspects of my fieldwork also proved more challenging than I had anticipated. Immediately, I realised that conducting fieldwork in online forums posed a variety of ethical issues. How, for example, does one obtain informed consent from hundreds or even thousands of forum members, many of whom are transient participants?

As I sought solutions to these problems, I spent the first few months of my research attending conferences and crypto meetups around the city. I wandered from East Village bars to ballrooms

in Times Square hotels to co-working spaces in Midtown and high-rise office buildings in the Financial District. I met old contacts from my CoinDesk days for interviews in Madison Square Park and chats on the side-lines of conferences. I met new interlocutors over lunch in Brooklyn, shouted introductions at crowded meetups, and sent many interview requests that went unanswered. I continued to search for other start-ups that would be willing to host me, but after conversations with two further candidates, I was rebuffed by both.

Four months into fieldwork, I was still finding my footing when the COVID-19 pandemic suddenly brought life to a halt. On March 12, 2020, my field notes described a city teetering on the edge of chaos as its inhabitants became increasingly concerned with the prospect of infection. As I walked in Central Park, I overheard numerous conversations about the virus and much hand-wringing about what to do. The grocery stores had already sold out of hand sanitiser, disinfectants, and toilet paper—frozen food was nowhere to be found. Many people had been instructed to work from home and some New Yorkers had begun to flee the city. Meanwhile, the price of bitcoin had plunged nearly 30% and crypto people were taking to Twitter to discourage each other from selling off their holdings. One week later, New York's mayor warned that the city would soon be locked down. The usual din of the city was suddenly replaced by an eerie quietness, interrupted only by the birdsong that had not previously been detectable amongst the honking of car horns and the shouts of impatient New Yorkers. Almost overnight, I found my field site reduced to the four walls of my apartment.

There was, of course, still the virtual world. In those uncertain days, the internet took on a new vibrancy, and I found that the crypto community's online haunts were particularly alive with discussion, debate, and memes. After leaving the field, I felt confident that the pandemic had strengthened my research, rather than weakened it. It forced me to dive deep into the digital spaces in which crypto people spend their time. Likewise, I found new ways of participating in the crypto community that, in the end, felt more authentic than the methods I had envisioned using at the outset. I go on to describe these below.

Methods

Twitter, now called X, played a significant role in my research. During the two years that I was in the field, crypto people treated Twitter like a digital public square. It was in tweets and comments that debates happened, memes were born, news was broken, advice was given, cryptocurrencies were "shilled" (promoted), and market analysis was proffered. Mudslinging was, likewise, quite common—both between community members and between members and outsiders. As a result, "crypto Twitter" made for essential daily reading—not just for me, but for most people I knew in crypto. Consequently, crypto Twitter and its content were frequent topics of discussion in interviews, meetups, and messages exchanged with friends. It was a place where the processes of constructing community and difference became especially visible, and where ideas about money and the public good were articulated and contested. Spending time on Twitter, immersed in the humour and memes of the community also helped me understand the often bizarre language and symbols through which crypto people express themselves. Likewise, I was able to track the evolution of narratives—especially about the value of crypto—over time.

Notably, however, I did not generally comment on tweets or threads, nor did I regularly post tweets of my own. Rather, I lurked, participating in a "read-only" capacity most of the time. I considered this a legitimate way to participate both because the space resembled a public square and because it was also how the majority of my interlocutors interacted with Twitter. I also conducted research in a variety of other online forums, including in Discord and Telegram channels, two messaging apps commonly used by crypto projects to communicate with their investors or community members. These channels, though usually open, were less like public squares and, therefore, came with a different set of ethical considerations. Due to the difficulty of obtaining informed consent from these groups' many members, I adopted a strategy of messaging members whose comments I found interesting and only used material from these conversations. This strategy allowed me to clearly disclose to them that I was a researcher, explain the goals of my project, and ask for their consent. These exchanges generally resulted in short but insightful message-based conversations.

Interviews also provided rich insights throughout my fieldwork, though I found that they had their limitations. I conducted twenty-eight semi-structured interviews whilst in the field, most of which took place via video conference due to the pandemic. These interviews gave me small glimpses into my interlocutors' personal lives, and covered a wide range of topics. The questions I asked were designed to initiate reflection on the diverse moral and ethical frameworks that underlie crypto's discourse and technologies. I also used interviews as an opportunity to present my own evolving understanding of these frameworks to my interlocutors so that they could provide feedback. While interviews were valuable for both of these purposes, I found that they rarely led to sustained interactions. Though they met my interlocutors' expectations about what academic research "looked" like—which was particularly useful in cases where I was studying "up"—this also proved to be a disadvantage. Once completed, most interlocutors seemed to assume that I had gotten "everything I needed" from them. Despite this, I did manage to sustain longer-term relationships with a few interviewees and spoke with them in less structured settings during the remainder of the fieldwork.

Nonetheless, by the autumn of 2020, I was still searching for ways to deepen my relationships with my interlocutors and to augment my own participation in the crypto community. I continued to conduct interviews, and attended a variety of meetups and conferences, all of which had moved online due to the pandemic. I also bought a small amount of crypto and began to experiment with the technology. These activities all proved valuable, but it was not until November of that year that I landed on one of my most effective methods. After consulting my supervisors, we agreed that I should create a crypto meetup of my own—a place where I could engage people directly on the issues with which my research was concerned—a sort of salon.

Thus, the Crypto Salon was born—an online gathering that I held nine times in total and which successfully attracted repeat attendees. The size of the meetup varied from session to session, with the smallest meetup counting four people and the largest around fifteen. Each meetup lasted around one hour, though some were longer. The first session operated almost like a reading group—I distributed an academic article about crypto prior to the salon and we discussed it together as a group. The length of the reading, however, proved unpopular and I quickly transitioned to inviting speakers to give a presentation to the group, which was then followed by

a discussion. I tried to use the meetups as a way to continue conversations with people I met elsewhere, and often selected speakers from among the people I had interviewed. The insights produced by these meetups were among the richest that I gathered during my time in the field. They provided a fascinating array of perspectives and dynamic, nuanced discussions on topics including community, memes, crypto influencers, and money.

The Crypto Salon was given a boost when I was approached by one of the founding members of Kernel, who had learned about the meetup on Twitter. Kernel is a community which describes itself as a "peer-to-peer learning institution." It is structured as an eight-week fellowship program that assists fellows as they develop a project—a new start-up, for example, or in my case, fieldwork. The founding member who contacted me wanted to know if I would consider running the Crypto Salon as part of the fellowship. After learning more about Kernel and gaining consent to research and write about it, I enthusiastically agreed.

I joined Kernel in January of 2021 alongside around 200 others. An email soon informed me that the members of my cohort hailed from fifty countries. I discovered that they were indeed a diverse group, which I quickly learned was by design. Indeed, though most members were charged a fee to attend the fellowship, Kernel provided a "scholarship" for all of the women in the program and I was required to pay only $1 (in crypto, of course) to enrol.

The Kernel team had developed thoughtful readings which reflected on a range of crypto-related topics through a philosophical lens; these included subjects such as money, debt, and trust. The program also offered the possibility to join learning "tracks" that were geared toward fellows attempting to build projects in areas of crypto such as decentralised finance (DeFi), gaming, tokens, and security. Likewise, Kernel facilitated group lectures with a number of prominent members of the crypto community as well as smaller breakout sessions afterwards. Fellows could initiate their own gatherings called "juntos," and the Crypto Salon operated as such several times.

Participating in Kernel was, therefore, partly like taking a course. It also had aspects of the accelerator programs that are well-known in the American tech industry in that it connected

fellows with mentors and other resources to aid the development of their projects. The Kernel team, for example, introduced me to several interviewees and generously agreed to be interviewed themselves. Critically, Kernel provided a welcome means of participating in a crypto community as a member, not an outsider. It gave useful structure to my fieldwork—there was an activity I could participate in nearly every day—and in my cohort, I found a group of kind, open-minded, thoughtful people who were also very willing research participants. Kernel provided, in short, not just a community to study but a community to think with. The program's founders envision Kernel as a community for life—an eight-week program which fosters relationships that last much longer—and I have thus far found this to be the case. Since leaving the field, I have remained involved in the community and continue to attend its events.

Immersion and undeserving subjects

In the years since starting this project, I have had many conversations with other academics about crypto, including some who also conduct research in the community. What I always found striking in these exchanges was the flippancy with which crypto people—or rather, the stereotypes that had been made to represent them—were often treated. One academic I met expressed an interest only in studying the "left-wing" members of the community. Similarly, upon hearing about my research, some academics assumed that I was studying crypto in order to "expose" it. Often, research-as-exposure was conceived of as part of a larger project of unveiling structures of, usually capitalist, domination that were taken for granted as not just existing in crypto, but as being furthered by it.

Others insisted that scepticism ought to be the researcher's primary mode of engagement with the community—that crypto people's representations should not be taken seriously. These comments never failed to surprise me and left me feeling uneasy. I considered it practically inconceivable that these academics would consider treating other anthropological subjects as such—especially non-western ones. Yet, from their remarks, it seemed that anthropology's reflexive turn, and its ethical principles, only applied to certain subjects. It was clear to me early on, therefore, that crypto's dual association with technology and finance had effectively discredited its community in the eyes of many researchers. Crypto people were "undeserving"

anthropological subjects—they merited research only insofar as it served to abet criticism of their activities.

That there is a hierarchy of subjects in anthropology, or indeed of research topics and field sites, is not a new revelation (Gupta & Ferguson 1997; Wilkinson 2021). As Gupta and Ferguson note, the hierarchy of anthropological objects of study has long centred on evaluations of the objects' "anthropological-ness"—that is, the extent to which they are "unfamiliar, 'different,' and 'local'" (1997:16). Meanwhile hierarchies of field sites and subjects have often been assessed in terms of otherness, as measured in terms of distance from a white, middle-class Euro-American researcher (ibid).

In the more than twenty-five years since Gupta and Ferguson wrote their article re-examining the field, however, anthropologists have taken up their insights to mount further challenges to "traditional" anthropological fieldwork, with some advancing critiques that centre decolonial and feminist theories. These interventions have arguably reconfigured the hierarchy of anthropological subjects and field sites such that worthiness and deservingness are accorded in proportion to marginalisation—a development that is, itself, perhaps a transmutation of Robbins' "suffering subject" which he saw as replacing the earlier "savage" subject (Robbins 2013; Wilkinson 2021). Meanwhile, studies of groups classed as non-marginalised are now often conceived of as "studying 'the enemy': the people we tend *not to like*" (Pinheiro-Machado & Scalco 2021: 329)—the suspect subject.

Yet, there are myriad problems with the division of anthropological subjects according to these criteria. For one, it is not clear that framing subjects with regard to their marginalisation truly represents a shift away from earlier conceptions of anthropological subjects. Just as otherness was originally measured as distance from a white, middle-class Euro-American researcher (Gupta and Ferguson 1997), so is marginality. Likewise, it is troubling that marginalisation is assumed to be something that is likely to be visible before research even begins. It is especially problematic in contexts like crypto in which community members and their practices are stigmatised in ways that have largely gone unchallenged in academia and elsewhere. Similarly, the uneven treatment of anthropological subjects according to this ranking is not only ethically

dubious, but potentially risks discrediting the discipline in the eyes of its interlocutors and the public, who may not share its evaluative framework.

Still, it is the conversations about crypto that I relayed at the beginning of this section that point to the most troubling aspect of this approach. In my view, this is the way it overlooks "the choices that social scientists make about what to study in the first place" and the way these choices "are always driven by the values they hold to be most important" (Robbins 2013: 448). These choices, and the values upon which they are based, often go unexamined in anthropology departments—something that is likely exacerbated due to the discipline's lack of political diversity. Instead, anthropology has long relied on long-term immersive fieldwork to unsettle the researcher's preconceptions and biases.

Since the pandemic, however, some anthropologists have advocated for shorter periods of fieldwork—so-called "patchwork ethnography" in which brief, discrete periods of research are stitched together over time in order to accommodate other personal and professional obligations as well as the insecurity that increasingly characterises academic employment (Günel & Watanabe 2024). Advocates of patchwork ethnography suggest that it would enable a greater diversity of researchers to conduct fieldwork, thereby making anthropology a more "inclusive" discipline (ibid). Yet proponents of this approach have neglected to consider its consequences for the "undeserving" subjects of anthropology, such as crypto people.

Patchwork ethnography is likely only to exacerbate the uneven treatment of anthropological subjects. This fieldwork strategy risks prioritising the diversity of researchers—with diversity conceived again through the lens of marginalisation—at the expense of rigorous, nuanced research. Short periods of fieldwork will only make it easier for ethnographers to elude rather than dwell in moments where their preconceptions are being challenged. Stereotypes assigned to "undeserving" subjects like crypto, therefore, will be more likely to be reproduced in anthropological literature than challenged.

Other anthropologists writing on undeserving subjects have asked how researchers should proceed when they "cannot 'stand with' the goals and desires of our research subjects"

(Wilkinson 2021:369). I am posing a different question in this section, however. That is, why do we assume we understand the goals and desires of these research subjects in the first place? My reply is that, without immersive fieldwork, we are unlikely to escape the limitations of our discipline's ever-shifting evaluations of deserving and undeserving subjects. An anthropology which ranks its subjects according to experiences of marginalisation and assigns some subjects the role of enemy is not an anthropology in search of human possibility (Graeber 2001; Robbins 2013), but rather one in search of human limitation.

With these reflections, I am not suggesting that anthropology ought to cling to classical conceptions of the field and fieldwork. My own fieldwork was, needless to say, unconventional by these standards. Nor am I advocating for "para-ethnography" and a total "deferral to subjects' modes of knowing" (Holmes & Marcus 2008: 82), especially given the tendency of practitioners of this method to elide structural considerations. What I am suggesting, however, is that immersive, long-term fieldwork remains essential to understanding the people we study, even if the meaning of immersion is likely to vary from one context to another.

In conclusion, it is worth returning to the question posed at the beginning of this section. How should anthropologists study online, decentralised communities like crypto? My reply is that studying such communities requires a long-term commitment to dwelling in the places in which they gather and a sensitivity to designing methods around the activities in which they participate. Likewise, anthropologists must resist the urge to use their work to "stand above" (Lepselter 2016: 18) their interlocutors' voices—especially when they espouse views that do not easily slot into prescribed analytical categories. Additionally, I share Robbin's conviction that anthropologists should "explore the different ways people organise their personal and collective lives in order to foster what they think of as good" and that we ought "to avoid dismissing their ideals as unimportant, or worse, as bad-faith alibis for the worlds they actually create" (2013: 457). In short, I am arguing that anthropologists should take their interlocutors seriously, no matter who they are, and that the credibility of the discipline depends on it.

III. Theoretical approach & outline of chapters

Research questions before and after fieldwork

When I started work on this project in 2018, there was little literature available on the crypto community in anthropology and related disciplines. With the exception of Dupont's work on the ill-fated Ethereum project, The DAO (described in more detail in later chapters), the literature that was available was largely concerned with the Bitcoin community (Dodd 2018; Maurer et al. 2013; Zimmer 2017) or, to a lesser extent, with the traditional financial industry's attempts to make use of blockchain technology (Maurer 2016; Swartz 2018). As I reviewed the existing body of literature, I was struck by the way that my own impression of the crypto community was not represented in it. I saw little of the vibrancy and humour I had observed as a journalist, as well as the many perspectives, debates, innovations, and confrontations with regulators about which I had written during that period.

As a result, my intention for this project was to move away from approaches that involved research on a single crypto sub-community or on one or two crypto start-ups (see for example Faria 2019). Instead, I aimed to study both Bitcoin and Ethereum with the hope of understanding the relationship between the two communities and their distinct visions of the public good (Bear & Mathur 2015). I sought to understand if the communities' blockchains could constitute models of the public good, and if so, I aimed to discern the principles which guided their conception of the public good. I was also interested in digital labour, both with regard to the work of miners (Calvão 2019) and developers. I sought to understand how these actors laboured to bring notions of the public good into being and sought to investigate how their labours related to existing work on the knowledge economy and algocracy (Aneesh 2009).

However, it did not take long before my initial research questions were effectively side-lined. Though notions of the public good remain an undercurrent in this thesis, it was clear after some time in the field that questions of economic governance, financial insecurity, and speculation would prove more salient than the concerns of labour I had initially proposed to study. This shift would have been difficult to foresee whilst I was drafting my research proposal. Indeed, the

COVID-19 pandemic and the quantitative easing the Federal Reserve unleashed as a result were utterly unthinkable events when I defended my proposal in September of 2019. Likewise, many of the innovations I write about in this thesis did not yet exist when I submitted my proposal— such is the speed and dynamism of the crypto community. Below, I describe the approach that resulted from these shifts in crypto and the world at large.

Theoretical approach

This thesis develops an ethnographically-informed approach to studying cryptocurrency communities which diverges from that of previous scholars who "tend to treat their hypotheses (that blockchains are an inherently dystopian technology) as conclusions" (Garrod 2019: 609). Its chapters challenge scholars who regard the blockchain as a technology of "disconnection and silencing" (Maurer et al. 2013) or as a replacement for social relations (Dodd 2017), highlighting instead the vibrant communities that have developed around blockchains and the means through which they are imagined and built. Likewise, the thesis disputes other scholars' assertions that Bitcoin and Ethereum are, respectively, right-wing or utopian (Brody & Couture 2021; Brunton 2019; Frieman 2023; Swartz 2018; Yogarajah 2022b; Zimmer 2017) and puts forward more complex readings of community members' political sensibilities that do not rely on reductive assumptions derived from left/right political dichotomies.

Echoing the contention of Davidson et al. (2018) that the blockchain is fundamentally a coordination technology, this thesis focuses on the way that Bitcoin and Ethereum self-consciously organise social relationships in contrast with conventional economic institutions. To make sense of this, it closely examines the political, economic, regulatory, and social issues to which both communities regularly respond. Indeed, in a further departure from the existing literature and science and technology studies-inspired approaches to crypto (see for example Caliskan 2020; Dylan-Ennis et al. 2023), this analysis has such issues at its heart.

In other words, this thesis does not treat Bitcoin and Ethereum as purely inward-looking communities, but rather as groups which are always in dialogue with each other and with society more generally. In doing so, the thesis moves away from analyses of crypto that treat it as an ill-

fated attempt to bring about an imagined future (Swartz 2022) or that attribute the actions and decisions of its members to uncertainty (Yogarajah 2022a). Each of these approaches arguably resorts to "psychologism" and "deflects analysis away from considering mediating structural dynamics" (Kapferer 2002: 18). Likewise, these approaches tend to minimise or dismiss outright the aspirations of the crypto community. In contrast, I try to maintain something of Graeber's "sense of social possibility" (Graeber 2001: 253) and Robbin's "anthropology of the good" in this thesis, avoiding therefore, the "temptation to dismiss people's investments in realising the good in time as mere utopianism, to smother their hopes analytically" and instead provide room for "these aspirational and idealising aspects of the lives of others" (Robbins 2013:458) in the pages to come.

The chapters that follow reveal crypto people as economic reformers who are designing alternatives to traditional financial institutions in response to several related issues. Namely, crypto people recognise that economic governance has distributive implications, and they see their ability to influence the governance of the economy, democratically, as limited. They make explicit links between these issues and the financial circumstances of their generation which— viewed against the wealth and opportunities enjoyed by their parents at a similar age—are comparatively bleak. With these issues in mind, crypto people have created new financial infrastructures and strategies of accumulation in the pursuit of "generational wealth." In short, this thesis reveals how the crypto community and its strategies of accumulation have undermined the state's role in mediating the value of money and the circulation of capital, and it shows that they have done so by insisting on the socially constructed nature of value and by seizing the means of speculation. Below, I outline my approach to some of the aforementioned concepts before offering an outline of the chapters to come.

Economic governance

In this thesis, I treat economic governance in the United States as a long-contested practice that has emerged out of particular historical circumstances that I describe in chapter one. Drawing on a wide range of sources (Goodwyn 1976, 1978; Graeber 2011; Hudson 1972; Ott 2011; Ritter 1997; Zaloom 2019), I show that economic governance and disputes over the nation's monetary

standard amount to a perennial problem in the United States. Similarly, I see the technocratic nature of present governance practices as existing in uncomfortable tension with democratic principles and am therefore attentive to the way that challenges to economic experts have issues of legitimacy, authority, and expertise at their core. Unlike Riles, I do not regard conflicts surrounding central banks as the result of a "culture clash" between technocratic experts and the public (Riles 2018); nor do I see the "legitimacy crisis" that threatens these governors of the economy as something that can be solved by spinning a new narrative—"one that the citizenry can truly believe in" (ibid: 20). I am similarly sceptical of her criticisms of the public, who she accuses of devoting "surprisingly little involvement and attention" to understanding "what central banks do" (ibid: 73) and whose "dangerous populist politics" she criticises harshly (ibid: 68). My interlocutors, the coming chapters will reveal, would be unlikely to recognise themselves in Riles' account of popular opposition to central banks. Their engagement with issues of economic governance is far more nuanced and sophisticated than has often been assumed.

In contrast with Riles and others, my approach to economic governance centres the politics that shape governance processes and the distributive issues that result from them (Dietsch et al. 2018). This puts my approach at odds with existing analyses of economic governance conducted through the lens of communicative theories of the economy which emphasise the role of narratives and discourse (Shiller 2019), as well as approaches that draw on Callon's notion of performativity (Caliskan 2020; Callon 2007). Indeed, later in the thesis, I argue that my interlocutors regard performativity as a trick that is leveraged by economists and traditional financial actors which they can, in turn, exploit as a technique for their own purposes (Taussig 2016).

Anthropologists have largely studied economic governance from the perspective of experts, such as central bankers (Holmes 2009; Riles 2018) and financial analysts (Leins 2018, 2022), however, the thesis contributes work on popular interventions in the economy through its focus on the crypto community's creative, blockchain-based experiments in governance. As part of my effort to re-centre distributive issues, the thesis critically examines the way that economic governance in the United States has enabled or disabled citizens' access to markets and financial

services on the basis of gender, race, and class (Servon 2017). In doing so, it highlights that the models of the economy used by central bankers, regulators, and others "contain transcendent ordering principles, concepts of the public good, and models of ideal conduct" (Bear 2015: 18) which are ripe for contestation. Indeed, I show that crypto people contest the ways these principles structure uneven distributions of wealth in the United States by designing their own infrastructures and communities with different notions of financial inclusion, justice, and fairness in mind, including some examples which parallel ideas of justice and fairness expressed in the work of John Rawls (1999).

Finally, the thesis links crypto people's grievances about economic governance with their philosophies of money and value. More specifically, the thesis suggests that crypto people understand the value of money to be closely linked with the power of the state (Graeber 1996, 2011, 2012; Hart 1986; Mosko 1999) and its ability to persuade its citizens, first, that its fiat currency does indeed have value and, second, of the necessity and inevitability of the social order which sustains this arrangement (Gell 1992). Money, and economic governance more generally, I argue throughout the thesis, are closely linked to processes of social reproduction as well as the intergenerational conflicts that erupt over access to the means of social reproduction (Foster 1999; Parry & Bloch 1989).

Generational wealth

Relatedly, in this thesis, my discussion of generational wealth—a term I borrow from crypto people—follows from Bloch and Parry's suggestion that anthropologists ought to shift their attention away from "the meanings of money to a consideration of the meanings of whole transactional systems" (Parry & Bloch 1989: 23). In their influential book, they identify two transactional orders, the short-term and the long-term, with the former comprising exchanges related to individual accumulation and the latter comprising exchanges that are implicated in the reproduction of society itself (ibid)—that is, "investments in social relations" which have a moral character (James 2012: 23). For crypto people, I argue, generational wealth falls into the latter category; it is conceived as wealth that can facilitate more than just day-to-day subsistence. It is wealth that allows its holders to progress through the key phases of adult life and that facilitates

the purchases and investments that are thought to mark these phases—such as buying a home. Likewise, many crypto people see generational wealth as something that facilitates an escape from "wage slavery," providing the opportunity to live a more secure and meaningful life.
In order to secure generational wealth through their crypto assets, crypto people must strike a balance between short- and long-term orders of exchange in their communities (Bloch and Parry 1989). Later in this thesis, I suggest that this involves the conversion of profits from short-term speculation on crypto assets (Carsten 1989) into wealth that contributes to the long-term survival of crypto, as well as the conversion of short-term speculators into long-term crypto community members. In an effort to achieve this balance, crypto people design complex systems of mechanisms and incentives which aim to act on the rights of individuals to dispose of their crypto assets (Strathern 1998). Thus, issues of property and politics (Hann 1998) are at the heart of efforts to generate and distribute generational wealth in crypto. Additionally, crypto people have sought to make the pursuit of wealth a social activity. They understand it as something that depends on their collective efforts and, unlike in other contexts, they recognise that they are the "raw material" out of which capital and wealth are "generated" (Weiss 2018: 456).

Additionally, the thesis importantly attends to the way that the wealth created by crypto people has been construed as "unsanctioned wealth" (2003: 217). More specifically, it argues that crypto critics, including regulators and others, treat crypto assets as "wealth that escapes structures of authority" and which "contrasts [with] representations of ideal economic practice and legitimate modes of redistribution" (ibid: 215). It is the framing of crypto as unsanctioned wealth, I later argue, that has given rise to the many negative stereotypes that have come to be associated with the community. Likewise, in exploring crypto as unsanctioned wealth, the thesis highlights the way that wealth is "pulled at by the apparatuses of the state" and the way that it is implicated in efforts to control the resources involved in processes of social reproduction (Rakopoulos & Rio 2018). It similarly emphasises the roles that regulators and financial institutions occupy as mediators of wealth creation and of processes of social reproduction. As with the state, crypto people see both regulatory agencies and traditional financial institutions as being controlled by "boomers" or baby boomers. Hence, intergenerational conflict is at the core of crypto people's pursuits of generational wealth.

Speculation

Speculation, in this thesis, both encompasses and exceeds the practice of investing in crypto assets with the aim of realising a profit. It is treated as a particularly dominant feature of contemporary capitalism—a critical means of generating surplus value (Bear 2020: 6). Nonetheless, citizens are afforded differential access to speculation, even though it is something that subjects them to processes of extraction (Bear 2020; Weiss 2018). These processes of extraction are exemplified in citizens' struggles to keep up with their mounting consumer debts (ibid), which redirects their wages toward the payment of interest, making it difficult to reach key milestones of social reproduction (James 2012). This extraction is also evident in the deleterious impact of austerity programs designed to reduce government deficits, which have been implemented to the detriment of both citizens and public infrastructures (Bear 2015a). In the crypto community, the access to speculation afforded by the still murky regulatory status of crypto assets is celebrated as something that expands access to the kinds of risk and volatility that represent some of the few means through which generational wealth can be created in the contemporary economy. The accredited investor standard, which restricts Americans' access to investing in private securities on the basis of class and professional characteristics, is widely criticised by the community.

Speculation, Bear argues, is also a particular form of action which involves the usage of "technologies of imagination" (Bear 2020: 8) which are deployed to both "anticipate the future and creatively bring it into being" (Bear 2015a: 19). I invoke the term technology of imagination to explain a variety of features of the crypto community, including incentives and technical mechanisms that are designed to predict and influence the future behaviour of crypto investors with the aim of directing that behaviour toward desirable ends. More abstractly, I also argue that crypto people are social constructionists and I suggest that this persuasion amounts to a technology of imagination. Why? Because at the heart of acts of speculation, Bear argues is, first, the idea that there are unseen, secret forces which give shape to reality. Second, she argues that speculation involves "acts of disclosure" which reveal these secret forces and provide an opportunity to exploit them (ibid). In crypto, acts of speculation involve, first, positing that value

is ultimately socially constructed; and, second, that the forces which naturalise the socially constructed nature of institutions such as money can be revealed and exploited.

The way that technologies of imagination "invoke an invisible realm and make it visible in order to explain the past, present, and future" makes them reminiscent of classic anthropological studies of magic (Bear 2015b). I explore this connection between speculation and magic in later chapters by suggesting that crypto people's social constructionist philosophy of value involves an imitation and exploitation of strategies—tricks which can be used as techniques (Graeber 2012; Taussig 2016)—that they believe are deployed in the traditional economy. This mimesis, I show, is evocative of the classical anthropological notion of sympathetic magic (Taussig 1993).

Overview of chapters

Chapter one aims to historically situate the crypto community through its *longue durée*—but abridged—analysis of American economic life. It starts by problematising existing attempts to historicise cryptocurrency, arguing that these resort to determinism. It then offers a new account which starts by comparing the crypto community's concerns to those of several groups of nineteenth-century reformers who played a key role in post-Civil War debates regarding the future of America's monetary standard. The chapter explores the subsequent degradation of democratic influence over the economy and the dollar, sketches the rise of public securities markets and traces the development of accompanying regulations. Finally, it explores how the dollar became entangled with expansionist U.S. foreign policy goals in the twentieth century and highlights the expanding role that consumer debt has come to play in Americans' lives.

Chapter two investigates why crypto people see community as critical to the success of their projects. It provides an overview of the evolution of the crypto community and the various forms of property that exist within it. The chapter argues that, in crypto, experiments in community-building have concerns of property and exchange at their core. I show that the formation of community takes place through the production and ownership of various types of coins and tokens, as well as through careful attempts to balance the short- and long-term exchange of these

crypto assets. This delicate balancing act requires the use of various incentives and mechanisms which aim to anticipate and shape the behaviour of investors.

Chapter three explores crypto as a technology of financial inclusion and offers an analysis of the distinct, but related instances of this idea in the Bitcoin and Ethereum communities. In the former, I show, visions of financial inclusion have been greatly shaped by monetary policy. Meanwhile, in the latter, visions of financial inclusion have been significantly influenced by interactions with regulators. The chapter examines exchanges between crypto people and their critics to demonstrate that their differences amount to an intergenerational conflict over which logics of redistribution, accumulation, and authority ought to govern the economy.

Chapter four analyses crypto people's philosophy of money and value in all its complexity. It argues that Bitcoiners and other crypto people are social constructionists who see money and value as linked to power and agency. Crypto people, I argue, embrace the idea of performativity—they believe that discourse about value creates value—which they see as a trick that is utilised in traditional finance and which can be imitated and exploited. Drawing on critiques of performativity and recent work on speculation, I suggest that crypto's embrace of performativity has coincided with both an escalation of speculative activity in the economy and a period in which performativity has become a foundational principle of American politics. Crypto people's social constructionism, I go on to demonstrate, amounts to a technology of imagination that is key to their strategies of accumulation.

Chapter five examines memes as key tools that crypto people utilise to reveal power, value, and society more generally as socially constructed. It analyses memes as art objects which contribute to the technology of enchantment—that system which underwrites social reproduction by persuading people of its necessity and inevitability (Gell 1992). Additionally, it critically re-examines the Great Meme War of the 2016 American presidential election and the way this event shaped scholars' assertions that the imagery utilised in crypto memes is suggestive of an affinity for right-wing politics. I suggest a different reading of memes utilised in both the Great Meme War and in crypto which focuses, first, on the way memes seem to embody agency and, second, on the way that they create a spectacle of secrecy and disclosure.

CHAPTER ONE:

Crypto in Historical Perspective: Perennial Problems of American Economic Governance

Figure 1 Bitcoin Sign Guy disrupts a congressional hearing while Janet Yellen speaks (C-Span 2017)

I. Introduction

On a July day in 2017, sitting U.S. Federal Reserve Chair Janet Yellen was on Capitol Hill. Testifying in a congressional hearing, she was engaged in a heated conversation with a Republican representative regarding the "Audit the Fed" bill, which aimed to bring transparency to the U.S. central bank. Whilst Yellen stated her case against the bill, arguing that the Federal Reserve is "one of the most transparent central banks in the world," a young man seated behind her made a split-second decision. He pulled out a pen and a yellow legal pad, and quickly scrawled "Buy Bitcoin," which he then daringly brandished for the camera trained on Yellen's face. He became an instant sensation—a legendary crypto meme was born.

Around forty-five minutes after the stunt, the video went viral and he was escorted out of the chamber for fear that he would cause further disruption (Rizzo 2018). Dubbed "Bitcoin Sign Guy" by the internet, he described the sign as "an endorsement. Buy it, make the economic and political decision to take your money out of the monetary system," he urged. In the interview, Bitcoin Sign

Guy went on to criticise the Federal Reserve, describing its policy as "an instrument of statecraft" before condemning "Fedophelia: people who worship every statement of the Federal Reserve officers" (ibid). Money, he told the interviewer, is a "collective illusion" (ibid).

This conviction—that money, especially fiat money, is an "illusion"—is one that surfaces again and again in the conversations, stories, and practices of the crypto community that are described in the chapters that follow. "Money works best," sociologists Carruthers and Babb argue, "when it can be taken for granted, when its value, negotiability, and neutrality can simply be assumed" (Carruthers & Babb 1996: 1556). When this ceases to be the case, they write, and people are forced to interrogate assumptions and beliefs about money which were previously considered naturalised facts, the possibility of breaking with convention—of doing *otherwise*—comes into view (ibid: 1557). The emergence of cryptocurrency, this thesis argues, indicates that for increasing numbers of people, the state-issued fiat money that they encounter in their daily lives is losing its air of inevitability. Instead, it smacks of artifice—the dollar and other currencies look increasingly as if they were conjured out of coercion and collective belief. In other words, crypto people are actively contesting the nature of money—what it is, why it is valuable, and how it ought to be administered. They are doing so by actively insisting on—or, to use the language of Carruthers and Babb, by remembering (ibid: 1560)—its socially constructed nature.

This chapter historically situates the crypto community and this moment of contestation. It foregrounds the broader contention of the thesis that when Bitcoin Sign Guy and other crypto people critique the dollar and the institutions which administer monetary policy, such as the Federal Reserve, their concerns exceed issues of money seen in the narrowest sense. The way they problematise the dollar makes it clear that they are troubled by the social relationships which have made the dollar durable: relationships of power, authority, domination, and exploitation. Similarly, their critiques demonstrate anxieties over economic and democratic governance, particularly in light of the declining, and deeply indebted, American middle-class. This chapter historicises these critiques to show that—though other scholars have represented the crypto community's gripes as marginal, fringe, impracticable, or even dangerous, these concerns have deep historical roots, appearing again and again in American history. In other words, they represent perennial problems.

Proceeding in four sections, the chapter traces a longer history of cryptocurrency than has been previously offered by other scholars and commences by problematising their work. In the second section, it locates the crypto community's antecedents in earlier debates over America's monetary standard, and highlights that regular citizens have long played an active and important role in these discussions (Ritter 1997: ix–x). Specifically, it traces the genealogy of the cryptocurrency community back to the monetary reformers and anti-monopolists of the late nineteenth century. Though crypto people differ from these nineteenth-century reformers in significant ways, the groups share fundamentally similar concerns regarding the centralisation of economic power, exploitative relations between creditors and debtors, class politics, corruption, and receding economic opportunity (ibid 1997). This section foregrounds questions concerning financial inclusion, speculation, and value that are taken up in later chapters.

Subsequently, in section three, this chapter turns its attention to the twentieth century with the development of both the Federal Reserve and securities laws. With the founding of the Federal Reserve in 1913, the possibility of democratically influencing the monetary standard was wrested from the American people. Around the same time, the marketing of corporate securities to average Americans began, accompanied by notions of "investor democracy," which were envisioned as a replacement for earlier ideals of "proprietary democracy" (Ott 2011) that valorised the independent, producer citizen (Ritter 1997). Yet, this section explains, with the development of the accredited investor standard in the 1980s and the flight of offerings from public securities markets to their private counterparts, the investor democracy ideal failed to be realised.

Section four takes seriously Bitcoin Sign Guy's assertion that U.S. monetary policy amounts to statecraft, and draws on economist Michael Hudson's work to highlight how the United States has deployed its monetary policy to achieve its expansionist aims abroad (1972). In doing so, this section sheds light on substantial shifts that have occurred in the economy: the increasing centrality of debt, the suspension of the gold standard, the emergence of the doctrine of central bank independence, and the long decline of Americans' influence on monetary policy.

Before proceeding, a disclaimer of sorts is warranted. This chapter does not claim to provide the definitive history of cryptocurrencies; the particular, American lens through which it unfolds will

no doubt prove insufficient or even problematic for scholars seeking to make sense of crypto communities in other parts of the world. Likewise, this approach is not intended to imply that cryptocurrencies are an American technology per se. Rather, the chapter assumes that the meaning of technology in any given context is always mediated by the cultural and historical circumstances of the people who use and think with it. I locate cryptocurrencies in American history with the aim of understanding what they mean to my largely American interlocutors—as well as to make sense of why my non-American interlocutors were deeply invested in the outcomes of U.S. monetary policy and financial regulation. Regardless of whether the chapter's content has purchase beyond the geographical context of this study, it makes a critical intervention in the existing literature by emphasising that cryptocurrencies have a more extensive intellectual lineage than scholars have previously supposed.

II.   Existing approaches to the history of crypto

Insofar as scholars have sought to locate cryptocurrency within history, they have largely focused their efforts on providing a narrow technical history of cryptocurrencies. The standard account traces crypto's origins through expanded access to and developments in public-key cryptography in the middle of the twentieth century and, latterly, attempts to create e-cash in online communities of cypherpunks and crypto-anarchists in the 1990s (Brunton 2019; Swartz 2018; Yogarajah 2022a). The cypherpunks and crypto-anarchists were two related ideological camps with many members in common. Both groups attempted to reimagine citizens' relationships with the state through cryptography. While the cypherpunks viewed cryptography as a means to initiate social and political change (Narayanan 2013: 3), the crypto-anarchists, as first articulated by Timothy May, one of their best-known adherents, sought to employ cryptography to weaken or destroy the power of the state and to "profoundly change the nature of economies and social interactions" (May 1994).

This chapter does not dispute that the cypherpunks and crypto-anarchists were important ancestors of the contemporary cryptocurrency community. It does, however, argue that the prevailing approach to historicising cryptocurrencies—that is by linking them solely to technologies of money rather than social histories of money—is flawed. First, this approach tends to privilege the

materiality of cryptocurrency—the code, the electricity it consumes, and, in Bitcoin's case, references to mining—at the expense of its sociality. Second, this approach tends to posit a deterministic relationship between the technical and the social. This technological determinism has created a pessimistic body of literature which supposes that cryptocurrency's design entails an "underlying dim view of human nature" (Zimmer 2017: 312). Consequently, most scholars have dismissed cryptocurrency as a scheme for bringing about a utopian or dystopian future. As such, they have greatly underestimated the extent to which crypto is a strategy for making the present liveable. Finally, in emphasising the technical, scholars have largely confined their discussions of money to the theoretical and abstract, and have failed to consider what is at stake politically, economically, and socially for those who contest the nature of money in the present and in the past.

The technical materialist approach

The materialist approach emerged from Maurer, Nelms, and Swartz's relatively early analysis of Bitcoin which associates it with commodity money. They describe Bitcoin's value proposition as "digital metallism" and argue that it "hardcodes" or "hardwires" social relations in a deterministic way that is fundamentally antisocial (Maurer et al. 2013). The authors gesture at historical debates about value and money which are detailed later in this chapter, but do not offer sustained reflection on their relation to the Bitcoin community. Struggles over the nature of money are simply described as having "cropped up again today" (ibid: 269).

While Maurer et al. describe themselves as "Bitcoin agnostics" (ibid: 263), the scholars that have built on their work have produced less sober analyses of crypto. For example, Zimmer later took up the digital metallist metaphor in a critique of Bitcoin, which compared it with the silver mining economy of colonial Peru. Like Maurer and his co-authors, Zimmer's materialist approach denies the sociality of Bitcoin: "Bitcoin is antisocial in the most materialist sense: it seeks to engineer away the problem of the social to currency" (2017: 312). But Zimmer's sixteenth-century colonial comparisons are too disconnected from the realities of the crypto community to be convincing and quickly become apocalyptic. In examining Bitcoin against the colonial silver mines, he argues,

"we'll see the techno-utopianism surrounding this global digital currency dissolve into a dystopian realm of scarcity and misery, buried deep within the infernal depths of the earth" (ibid: 314).

In a 2018 article, Swartz extends and adds to her earlier work with Maurer and Nelms. After reproducing the standard historical account of the cypherpunks and crypto-anarchists, she introduces the concept of "infrastructural mutualism" to describe a second "technological imaginary" which competes with digital metallism (Swartz 2018: 10). This is a reprise of the materialist approach she advanced earlier with her co-authors and it treats money as "fundamentally infrastructural" (ibid: 11). Swartz is less disparaging of Bitcoin than Zimmer but nonetheless, by the end of the article, similarly descends into speculative catastrophising. She resurfaces Zimmer's mining metaphors and suggests that perhaps we are approaching "the world that comes after: after the damage that humans have done becomes truly cataclysmic" (ibid: 22).

Brunton offers the most elaborate attempt to historicise cryptocurrency through a technical materialist framework in his 2019 book *Digital Cash*. He is concerned first with the translation of the material qualities of cash to a digital medium and how, bit by bit, various innovations in cryptography alongside the imaginings of the crypto-anarchists, cypherpunks and others eventually made this translation realisable in the form of Bitcoin (Brunton 2019). True to its materialist leanings, the book, he writes, "is a history of how data was literally and metaphorically *monetized*" (ibid: 3). Brunton's second-order concern is with the relationship between money and the future—both the way different types of money "tell stories about the future" (ibid: 3) and the link between the exchangeability of money and the assumption that it will be accepted at a future time (ibid: 4).

Brunton calls on a wide cast of characters to make an argument that is, in the end, deeply cynical: digital cash is portrayed as a means to achieving more expansive utopian (or dystopian) projects which, in his view, have ultimately proven ill-conceived and iniquitous. Some of Brunton's characters are clearly connected to the contemporary crypto community while others seem to have been handpicked out of history to support his conclusion that Bitcoin is both "the monumental folly of our age" and "the built out version of one of the most abstract fantasies of value ever conceived" (ibid: 201). Brunton presents all of these characters as essentially unencumbered by

the context in which they lived. Any social, political, or economic circumstances that influenced the ideas and outlook of Brunton's characters are effectively treated as irrelevant.

Taken as a whole, the moralising determinism of the existing literature evokes older works on money which assume, as Maurer once put it, that "money and the violence of its abstractions erode the sociability subtending human existence, and the very idea of society itself. Money's baaaaaaaaaad" (Maurer 2006: 19). Claims by Maurer et al. and Zimmer that Bitcoin is antisocial are, indeed, difficult to distinguish from older assertions made by Marx, Simmel, and others that "destructive of community, money depersonalises social relations" (Parry & Bloch 1989: 6). Yet it is not only cryptocurrency's money-ness that seems to have inspired this moralising determinism. Swartz, Zimmer, and Brunton also seem alarmed about cryptocurrency as a *technology*—and the impact of technology on society more generally. Brunton is transparent about this at the end of his book as he concludes that Bitcoin "may well be the purest and most honest expression of a society that could not figure out what to do with its technological inventiveness…except to squander it in creating new kinds of artificial scarcity" (Brunton 2019: 201).

In his celebrated work on the American Populists, movement historian Lawrence Goodwyn[2] lamented that modern historians struggled to understand the ideas and dreams of the Populists who appear later in this chapter. "Against the widespread modern resignation about the fate of mere humans, psychologically trapped by their own technological inventions and in homage to the seemingly rigid and uncontrollable industrial structures that have generated those inventions," he wrote, "the Populist view of human possibility is a strange and unexpected phenomenon indeed" (Goodwyn 1976: xiii). To Goodwyn, it was the lack of "significant aspirations in our own time" which prevented his contemporaries from comprehending the Populist movement (ibid: xii). It is arguably the same sense of resignation—and even, perhaps, a deep suspicion of those with aspirations —that has kept scholars from comprehending cryptocurrency today.

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[2] Goodwyn's work on the Populists was a powerful rebuttal to previous historians' works which had cast the Populists as utopian reactionaries. These historians were sympathetic to the politics of the Populists' conservative opponents and the Populists suffered in these representations as a result. See Ritter (1997: 11-16) for a more detailed discussion of the literature and debates.

The remainder of this chapter disposes with the technical materialist approach outlined above. It proposes a new historical lineage for cryptocurrency with deep roots in the ideas, anxieties, and aspirations of past Americans who struggled against the nation's monetary standard and challenged its financial system.

III.   The return of the financial question

In this section, I provide historical background on the development of the American financial system and shifts in its monetary standard as well as the citizens who debated the merits and meaning of these changes. My intention in exploring this history is not simply to take for granted historians' and others' analyses of these events. Nor is my aim to posit an equivalence between crypto people and the reformers described below. Rather, my intention is to, first, unsettle what I see as latent assumptions about the inevitability of the contemporary American monetary standard in the existing literature on crypto. Second, I aim to show that the question of how to manage the money supply has been a perennial one in American capitalism which has important distributive implications. More specifically, I suggest that the monetary standard is directly linked to the creation of credit and debt relations which determine which groups control or mediate access to the resources that sustain processes of social reproduction.

A short history of territorial currencies

One of the more striking features of the existing literature on crypto is the extent to which it leaves many assumptions about contemporary money forms untested. In Brunton's (2019) book particularly, one is left with the impression that, in the west, the only people who have bothered to challenge the monetary status quo have been, at best, eccentrics, and at worst, cranks. Specifically, the Bitcoin community's speculation on the "collapse of the current monetary order" is dismissed as fringe—a sentiment illustrated through comparisons to preppers, replete with "caches of fish antibiotics, the repainted and greased AK-47 magazines, the batteries and gas masks" (ibid:196).

Yet, a brief examination of the emergence of territorial currencies reveals that Brunton's confidence in the monetary order—and characterizations of those who challenge it—is potentially

misplaced. Here I draw on the work of political scientist Eric Helleiner to demonstrate that, far from representing a dominant and pervasive force throughout history, territorial currencies have their origins in the nineteenth century, making them a thoroughly modern development (Helleiner 2003). Prior to this period of nation-building, industrialization, and expanding markets, Helleiner explains, "foreign currencies frequently circulated alongside domestic currencies, low-denomination forms of money were not well integrated into the official monetary system, and the official domestically issued currency was far from homogenous and standardized" (ibid: 3).

For Helleiner, it was the advent of the nation-state, with its attendant centralization of power and enhanced regulatory capacities that was partly responsible for the emergence of territorial currencies. Equally important was industrialization: new technologies made it possible for the state to mass produce and standardise money in unprecedented ways. While these factors (among others) made territorial currencies possible, Helleiner demonstrates that it was a combination of political, economic, and fiscal goals which made them desirable. More specifically, for the policymakers of the period, currency monopolies could offer the state greater sway over domestic macroeconomic conditions while streamlining taxation and making the most of seigniorage. Likewise, territorial currencies were a means through which the state sought to integrate the poor and their heterogeneous forms of money into the national market economy (ibid). Therefore, territorial currencies could also be described as "a technique of government" designed to improve the governability of citizens' economic activities (Roitman 2003: 49). Put slightly differently, territorial currencies are thoroughly linked to political power and the state's ability to exercise it. Additionally, in direct contrast with Marx and Simmel's claims about money's transformative and detrimental impact on social relations, Helleiner notes, nineteenth-century and early twentieth-century policymakers viewed territorial currencies as a means to cultivate or strengthen a shared national identity amongst the populace. Likewise, policymakers considered territorial currency to be an expression of the nation's sovereignty (Helleiner 2003).

Importantly, however, territorial currencies were not simply received without protest by the populations on which they were imposed. Rather, Helleiner says, they have been regularly challenged since their inception and were "never as dominant or willingly accepted as conventional wisdom suggests" (ibid: 2). Implicated in larger nationalist and governance-related initiatives, in

short, territorial currencies were not simply neutral, technical projects, but powerfully political ones which were entangled in broader issues of identity, community, distribution, and economic development (ibid). In spite of their ubiquity today, the relatively short history of territorial currencies is "one reason," Helleiner writes, "not to overstate the long historical significance of current monetary transformation" (ibid:3). Likewise, five years before the publication of the Bitcoin white paper, Helleiner recognised that electronic currencies and other alternative monies had deep roots in disputes over territorial currencies that had occurred in the prior two centuries (ibid).

Money and finance in postbellum America

In the United States, debates over money issuance, banking, and finance have a long and acrimonious history that stretches back to the nation's infancy. However, given its limited scope, this chapter starts with the period around the Civil War—a time in which citizens entered into intense debates about monetary policy in the wake of government changes to the money stock as a result of the financial pressure of funding the war. Though political scientist Gretchen Ritter[3] argues that "the cultural significance" of these debates "appears to be largely lost in American politics after the early twentieth century" (1997:25), this section makes the case that "the financial question," or "the money question," as these disputes were called in the nineteenth century, is experiencing a twenty-first-century revival.

From 1836 to 1863, American money was more heterogeneous, and its issuance more decentralised, than the nation's present-day currency. Americans transacted with both paper and metallic money. Yet, the paper money was not the fiat money we know today; rather, it took the form of banknotes that were issued by private state banks. These banks, and the corresponding requirements for the reserves of metal that were supposed to back their notes, were regulated— and therefore, varied—on a state-by-state basis (Ritter 1997). This was the era of wildcat banking

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[3] Ritter is a constructivist political scientist who treats history as both "the sequence of time" and as "political imagination" (1997: 11). She is concerned with the way that historical narratives impact the construction of history and, similar to Goodwyn, provides an account of the Greenbackers and anti-monopolists that attempts to hold space for the contingent and indeterminate. In her book, outcomes of history are not inevitable, but contested. In other words, Ritter is writing against accounts which assume that history's victors were bound to prevail all along.

and wild it was—thousands of different paper notes flowed through the nation's economy while newsletters emerged to assist with the difficult task of tracking exchange rates (Helleiner 2003). A variety of coins circulated alongside the paper banknotes; until the 1850s, these included silver coins from abroad (ibid) in addition to domestic coins modelled in gold, copper, and to a lesser extent, silver (Stevens 1971). Due to changes in the exchange rate between gold and silver which made the price of gold decline relative to its international market value, the U.S. saw most of its silver coins exported abroad, leaving few in circulation within the nation's borders by the 1850s. The consequence was that the U.S. was operating with a de facto gold standard (Carruthers & Babb 1996; Elwell 2011).

However, the financial strain of the Civil War forced the American government to suspend the gold standard less than a year after the first shots had been fired at Fort Sumter. This would be the first of several significant changes to the nation's financial system initiated during this era. In 1862, congressional legislation authorised the creation of legal tender or fiat money: the greenback would be issued by the government and backed by federal bonds. Though greenbacks were not redeemable for gold, many people assumed that this would not remain the case for long—there was widespread speculation that the U.S. would resume the gold standard after the Civil War (Ritter 1997). The 1862 legislation was not, however, accepted without contest by the American public. Allegations that the bill was unconstitutional and that this new paper money would cause inflation plagued the greenback cause during and after the Civil War (ibid).

In 1863, Congress passed another significant piece of legislation which altered the financial landscape of the nation and went on to shape political debates for the next thirty-odd years. This was the National Banking Act, which aimed to shift the country away from wildcat banking and, in so doing, create a homogenous national currency. Whereas private banks in each state had previously issued banknotes that were ostensibly redeemable for bullion, the National Banking Act created a new system of federally-chartered national banks permitted to issue uniform banknotes backed by government bonds. This system was conceived as a way to both fund the war by creating a market for government debt and to do away with the state banking system (ibid). But the state banking system would not simply disappear on its own—Congress implemented a ten percent tax on state banknotes in an attempt to seal its fate (Carruthers and Babb 1996; Ritter

1997). Nonetheless, after a period of decline in the 1860s, state banks rebounded in the 1870s and their numbers eventually surpassed national banks by the turn of the next century (Ritter 1997).

The resurgence of the state banks evidenced that the national banking system had not been a resounding success. "Like their predecessors," Carruthers and Babb explain, "national banks were unevenly distributed across the country: banks and banknotes were concentrated in the Northeast, and, consequently both the West and South suffered from a scarcity of money" (1996:1562). The system's flaws were myriad: banks earned interest on the bonds that backed their notes, providing them with a profit that critics called "an unfair privilege to the banks" (Ritter 1997:67). Public debt had become a source of private profits for the bankers, an arrangement that rendered "the state of liability a resource in itself" (Roitman 2003: 76).

Another issue stemmed from banks' ability to deposit a percentage of their reserve requirements with other banks to earn yet another source of interest. Because the banks that paid the highest interest rates were located in New York, the country's capital became increasingly concentrated there, giving the Northeast a leg up in economic development (Carruthers and Babb 1996; Ritter 1997). Thus, the geographical concentration of capital was tied up with banks' profit-seeking. In the South and West, the problems created by capital concentration in the Northeast were compounded by the South's diminished number of banks as a consequence of the war and the West's lack of financial services due to its frontier status (Ritter 1997). Additionally, southerners were also contending with "a new and debasing method of economic organization that took its specific form from the devastation of the Civil War and from the collapse of the economic structure of Southern society": the crop-lien (Goodwyn 1978: 21).

The crop-lien was effectively a form of debt peonage. With little capital and currency, southern farmers were forced into exploitative relationships with furnishing merchants who purchased goods and provided them to the farmers on credit, with a lien against the farmers' crops serving to secure the merchant's advance (ibid). Farmers found themselves crushed under the extortionate rates of interest added to items sold on credit, which proved to nearly double the cash price the merchant offered, if he bothered to offer one (ibid). Having mortgaged his crop and only asset, Goodwyn writes, the farmer lacked the freedom to take his business elsewhere and "soon learned

that the prudent judgement or whim—of his furnishing merchant was the towering reality of his life" (ibid: 21). The merchant, with his dreaded ledger which tallied the farmer's debts, "was known as 'the furnishing man' or 'the advancing man'" to white farmers, while, Goodwyn tells us, "to black farmers he became 'the Man'" (ibid: 23)—the apparent origin of an expression still widely used to refer to figures of authority in the United States.[4]

Newspaper editors at the time criticised the farmers as spendthrifts and opined that they ought to diversify the crops they grew in order to improve their finances (ibid: 24). Their debts, in short, were not "socially sanctioned," but regarded as indicative of moral shortcomings (Roitman 2005: 212). Yet, the farmers also struggled under the extractive monopolies of the railroad companies whose infrastructures—built with public money—whisked the farmers' crops across the country (Goodwyn 1978: 70-72). What the farmers saw as critical public infrastructure was, to the railroad magnates, a site for value extraction and accumulation (Bear 2015a). Railroad companies engaged in the "watering of stock" on a wide scale; in order to pay dividends on this stock, they "converted their customers into real sources of direct capital" (Goodwyn 1978: 71-2). Put another way, the farmers' livelihoods had been transformed into sites of extraction that supported the speculative activities of the railroad companies (Bear 2020). It was the exploitative conditions of the crop-lien, the monopolies of the railroad companies, and the gold standard system which sustained these conditions that catalysed efforts among farmers to politically organise. These efforts eventually culminated in the Populist movement, a radical attempt to build a coalition across racial, sectional, gendered, and vocational lines.

By the 1870s, the U.S. was in the throes of a financial crisis that included a panic, a recession, and a currency contraction (Ritter 1997). At the time, "to a number of thoughtful Americans," Goodwyn writes, "the crucial post-war topic for the nation…concerned the need to reorganize the country's exploitive banking system to bring a measure of economic fairness to the 'plain people,' white as well as black" (1978:3). With the cessation of the gold standard, the issuance of the greenback, and significant changes to the banking system, the question of what money was and what it *could be* had also been blown open.

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[4] James found a similar situation of indebtedness in South Africa driven by purchases from furnishing merchants (see James 2014)

Americans were at odds over whether the gold standard should be resumed and if greenbacks should be made redeemable for gold and, subsequently, discontinued. The debates that ensued—about both the banking system and monetary standard—were taken up by Americans from all walks of life (Carruthers and Babb 1996; Ritter 1997; Goodwyn 1978). Out of these debates emerged two camps with divergent visions of the nation's ideal monetary standard. On the one side were the Greenbackers or anti-monopolists, and on the other, the financial conservatives or gold bugs (Ritter 1997). Though, as in Maurer et al.'s (2013) work, Bitcoin is most often associated with the metallist leanings of the financial conservatives, this chapter contends that Bitcoin—and crypto more generally—owes much to the Greenbackers and their anti-monopolist tradition as well.

The monetary standard and the future of American democracy

To describe the post-Civil War debates simply as disputes over money and finance would be inaccurate. As Ritter explains, these debates also concerned "competing visions of economic development and political change. The choice between greenbacks and gold was a choice between a democratically controlled, national monetary standard and a market-oriented, international monetary standard" (1997:73). In short, Ritter writes, "beliefs about the value of money and who should control it went to fundamental differences over the relationship between economic and political life. For the anti-monopolists, money was social and political, while for financial conservatives, it was natural and objective" (ibid:73).

The financial conservatives' philosophy of money went hand in hand with their desire to create a division between "the economy and polity, in which the economy was an autonomous system regulated by the forces of supply and demand" (Ritter 1997:64). This group, made up largely of financiers and businessmen, was profoundly sceptical that the government could manage the economy and money supply without being unduly swayed by partisan interests or other corrupting influences. Simply put, if the government and citizens could be prevented from meddling, the nation's economic maladies would resolve themselves (ibid).

This was a fundamentally technocratic vision which held that the market and its deputies, the banks, could supervise the banking system far better than the American people and their representatives (ibid). From the perspective of the financial conservatives, the greenbacks could not be allowed to continue. "For them," Ritter explains, "gold represented moral responsibility, national greatness, and international alignment with other great nations" who had already adopted the gold standard, such as the United Kingdom (ibid:153). Greenbacks, on the other hand, were, as a currency, not only inflationary and destabilising to the economy, but also immoral—they encouraged financial imprudence, and until specie redemption resumed in 1879, amounted to a "'forced loan' from the public to the government" (ibid:87). "This view" in favour of gold, Goodwyn contends, "reflected a creditor's perspective generally and a banker's view specifically" (1976:12).

The Greenbackers took the radical view that it was the state that conferred value on money via the law—value was not, as the conservatives claimed, naturally embodied in metals such as gold or silver. Whereas gold represented international interests, greenbacks were associated with the domestic and the national identity (Ritter 1997). The core of Greenbackism, Ritter contends, "was concerned with the democratic promise of American life" (ibid:96). Greenbackers treated money as a social and political creature and highlighted the critical role of the nation's financial system in issues of distribution and development as well as democracy. They advocated for "publicly created and controlled money" (ibid:77) that was elastic enough to keep pace with population growth and economic development (Goodwyn 1976) and "sought to preserve a middle-class society of independent producers vigilantly protecting the republic" (Ritter 1997:103).

Likewise, the Greenbackers held anti-monopolist sentiments. They argued that the national banking system provided bankers with a monopoly over the issuance of money and credit, which facilitated the advancement of private interests and profits rather than the public good. The anti-monopolists made a distinction between autonomous, producer-citizens and dependents, which included not only the bankers and other elite beneficiaries of the national banking system, but also government officials, unskilled wage workers, and others (Ritter 1997). With the conservatives, the Greenbackers shared fears of corruption, though these concerns were expressed differently. For the Greenbackers, it was "the money power" that possessed undue influence in the American

economy and threatened the future of the nation's democracy (ibid:107). While the financial conservatives enjoyed significant influence at the time, support for the greenback movement ebbed and flowed throughout the last decades of the nineteenth century (ibid). It was a cooperative reform movement quietly brewing in the South and West which would bring greenbackism its most fervent advocates: Populism.

The currency contraction caused by the resumption of the gold standard affected some Americans more than others, with farmers hit particularly hard. As the economy became more centralised, "a national pattern of emerging banker-debtor relationships and corporate-citizen relationships began to shape the lives of millions of Americans" (Goodwyn 1978:69). The country was in a deflationary spiral and, as the price of agricultural products declined, Southern farmers trapped in the debt peonage of the crop-lien found themselves the victims of expropriation courtesy of the furnishing merchants. With few ways out, some of them sought better futures in Texas and other western states, but found little success (Goodwyn 1976; 1978). Eventually, in an attempt to remedy their deficient access to credit and degrading conditions, American farmers began to organise, forming the Farmers Alliance, an association made up of individual Alliances in each state. The Alliances attempted to create buying and selling cooperatives to counter the monopolistic forces of merchants, railroad companies, and banks, and sought allies in labour organisations. These cooperatives served not only as a means of organisation, but also education, and provided the farmers with a taste of self-determination (Goodwyn 1978). "To describe the origins of Populism in one sentence," Goodwyn writes, "the cooperative movement recruited American farmers, and their subsequent experience within the cooperatives radically altered their political consciousness" (1976: xviii).

The movement slowly grew through the efforts of sympathetic newspapers and travelling lecturers who energetically delivered the Alliance message and methods throughout rural America. Goodwyn explains that, though the power of sectionalism and allegiances to party politics initially discouraged Alliance members from forming political ambitions, they eventually relented—first by running their own candidates on the Democratic party ticket, and eventually by forming their own party, the People's Party in the 1890s. The coordinated resistance they encountered to their cooperative efforts at nearly every turn had the effect of radicalising Alliance members (Goodwyn

1976, 1978). They found that their cooperatives were an affront to the structures of authority and logics of distribution of the existing economy (Roitman 2003, 2005). Nonetheless, what emerged was a hopeful movement which had been energised by the discovery of autonomy—and of "individual self-respect and collective self-confidence, or what some would call 'class-consciousness'" (Goodwyn 1978:33).

The Alliance and the People's Party embraced the greenback doctrine, giving it a starring role in their platform, and advanced a related, radical political proposal of their own: the sub-treasury system (Goodwyn 1978). Designed to address the farmers' credit dilemma and the ongoing shortage of currency, the proposed system would see the federal government issue greenbacks backed by the farmers' crops, which would be stored in government-owned warehouses called sub-treasuries (ibid; Ritter 1997). The sub-treasury plan was intended to address multiple problems; among them were the financial difficulties caused by the seasonality of farming, which had been exploited by creditors, as well as the inelasticity of the existing money supply and regional shortages of currency in the South and West. The plan was also intended to deal a blow to the monopolistic power of bankers and financiers by strengthening the government's role in money issuance (Ritter 1997).

The People's Party did not limit its aspirations to representing farmers' interests, but aimed to represent a broader category of workers. In what was a radical exploration of coalition politics at the time, the Populists sought to recruit black sharecroppers to their cause and also included women in their meetings. Similarly, they sought to appeal to urban workers with a view to "becom[ing] the institutional voice of the 'industrial millions'" (Goodwyn 1978:174). But organised labour had, by this time, been brought to its knees in the United States and, lacking an equivalent to the cooperative system with which to radicalise urban workers, the Populists failed to achieve a broad coalition. The Party's attempts to overcome sectional differences with its economic platform were undermined by the varying degrees to which state chapters were committed to it (ibid). Similarly, proposals by some members to join forces with the Democrats culminated in the party's eventual nomination of William Jennings Bryan as its presidential candidate for the election of 1896. Bryan, a Democrat who was never truly committed to the original Populist platform and cause, had been boosted by growing popular interest in a bimetallic standard which had undermined the original

greenback radicalism of the Populist platform. After the election of 1896—known as the Battle of Standards—Populism, anti-monopolism, and greenbackism withered away. The gold standard, and corporate America, had triumphed with the election of William McKinley (Goodwyn 1978; Ritter 1997).

The legacy of nineteenth-century economic radicalism

For Goodwyn, the defeat of the Populists and subsequent "narrowed boundaries of modern politics" set the tone for the twentieth century (1978:265). "The 'money question,'" Goodwyn laments, "passed out of American politics essentially through self-censorship…the silencing of debate about 'concentrated capital' betrayed a fatal loss of nerve on the part of those Americans who, during Populism, dared to speak in the name of authentic democracy" (ibid: 265). With the Populists vanquished, the financial conservatives moved to cement the status of the gold standard in law and it was gold bugs who went on to create the Federal Reserve in 1913 (ibid; Ritter 1997)—that "crucial anomaly at the very core of representative democracy," as Greider later described it (Greider 1987:12). As with the money question, Goodwyn writes, "the idea of substantial democratic influence over the structure of the nation's financial system…quietly passed out of American political dialogue" (1978: 269).

What, then, do the defeated radicals of a bygone age have in common with the crypto community? What the subsequent chapters in this thesis show is that crypto people have revived the financial question. This question, it seems, is a perennial problem in American economic history. As in the nineteenth century, crypto people have "detected disturbing changes in the class structure of American society" (Ritter 1997:106)—the promise of prosperity which has long been part of the lore of American life now looks firmly illusory. Though the crop-lien system is a thing of the past, debtor-creditor relationships still have an outsize influence on Americans' lives. Indeed, the example of the furnishing merchant's dreaded ledger lends additional significance to the blockchain's design as an open, public, verifiable, shared record of truth. Likewise, as in the nineteenth century, the treatment of debtor-creditor relationships varies—some forms of debt are sanctioned, such as state and corporate debt, meaning the forms of extraction they entail are legitimated and furthered by social logics of authority and distribution. Meanwhile, consumer debt

is considered a moral shortcoming (Roitman 2003, 2005)—"an abnormal situation that needs to be rectified" (Roitman 2003: 74) even though it has become central to individual pursuits of the markers of social reproduction and provides creditors with a rent-like source for the accumulation and extraction of wealth (ibid).

Likewise, with its insistence on decentralisation, crypto has once more brought the centralisation of the economy and of economic power into focus. Discussions about the location of power in the contemporary economy feature prominently in crypto people's attempts to design around it. Their concerns are often expressed through a language of financial inclusion—inflected with anxieties about corruption, unequal access to speculation and wealth creation, and the outsize power of finance—that resonates with the anti-monopolism of the nineteenth-century reformers.

Crypto theories of value, this thesis contends, also represent a transformation of the theories of value put forth in the nineteenth century. Though Bitcoin is often associated with gold, it is the political legacy of the greenback which made Bitcoin possible—both in the sense that Bitcoin is a reaction to contemporary fiat money and in the sense that it owes something to the greenback philosophy of value. Even if Bitcoin mimics the characteristics of gold and shares some political and moral concerns of gold bugs, it is not gold. Its value, crypto people explained to me over and over again, is located in the collective belief in the story that it is *like* gold.

This theory of value, the thesis argues later, ultimately rests on a theory of power which represents a transformation of the idea that money is a creature of law and the state, not intrinsic value. If money is a legal invention that is given value by the power of the state, then what accounts for the power of the state? The answer, for crypto people, is something like that offered by Bitcoin Sign Guy at the beginning of this chapter: it is our subscription to a "collective illusion." In this view, it is not *state* power which gives money value, but simply *power*. Finally, as with the Farmers Alliance, crypto has its own versions of travelling lecturers and sympathetic news outlets and it similarly shares an abundance of critics who bristle at the way it subverts existing structures of authority and distribution in the economy (Roitman 2003, 2005). As Goodwyn reminds us, "insurgent movements are not the product of 'hard times'; they are the product of insurgent

cultures" (1978:61) —and crypto has developed its own educational tools, symbols, theories, and slogans which have contributed to the creation of such a culture.

Like the Alliance members who were radicalised by their experience with cooperatives and who learned about the "money power" via the resistance they met from banks, corporations, and their elected officials, crypto people have also been radicalised by their experiences. For many people I met, it was crypto that made finance, the economy, and their bleak prospects comprehensible to them for the first time. The resistance crypto has met from regulators, politicians, and financiers has only served to strengthen their concerns regarding the centralisation of economic power in America. Yet they have what so many contemporary political movements no longer offer: hope.

Methodologically, the studies of the aforementioned nineteenth-century reformers are also instructive. Goodwyn and Ritter both write against the previous historical representations of the Populists, Greenbackers, and anti-monopolists. Ritter criticises "the historical narrative of what 'must have been'" that has dominated many accounts and emphasises that the defeat of anti-monopolism was hardly inevitable (1997: 281). America was not "on a singular track…despite the distractions of disgruntled farmers and rebellious workers" (ibid: 281). Much of the existing literature on cryptocurrency replicates the cynical inevitability of the determinism Ritter describes. Indeed, one gets the sense that, in the existing scholarship, there is a desire to close the book on the crypto community before it has been fully written. Yet scholars who fail to treat cryptocurrency as a serious rebuke to the existing economic order risk tacitly legitimating existing models of economic governance.

Goodwyn attributes historians' misunderstanding of the Populists to the analytical limitations of dominant theoretical ideas in academic and popular cultural assumptions in America. Notions of progress and class are particularly potent. "The political aspirations of the landless are seen to deserve intense scrutiny," Goodwyn writes, "but the politics of 'the landed' cannot be expected to contain serious progressive ideas" (1978: xv-xvi). The staggering consequence of this assumption, he explains, is that "it permits the political efforts of millions of human beings to be dismissed with the casual flourish of an abstract category of interpretation" (ibid: xvi). While crypto people are not necessarily "landed," assumptions about their class identities, gender, and proximity to tech

and finance have similarly stigmatised them. Like Populism, crypto resists the social scientist's categories: class, capitalism, gender, race, and left/right politics. As with Populism, academics who have reached for these blunt instruments in their analyses of the crypto community have erased the complexity of crypto people's experience, ignored the sources of their discontent, and ridiculed the scale of their aspirations (ibid).

There are, undoubtedly, differences between the crypto community and the nineteenth-century reformers introduced in this chapter; as I set at the outset of this section, my intention is not to posit an equivalence between crypto people and the reformers described above. One important difference in their political programs is that, unlike the anti-monopolists, the state does not feature in crypto people's visions of their alternative economic ecosystem—disillusionment has rather persuaded them to attempt to route around it entirely. Likewise, the aims of the crypto community are vastly more cosmopolitan, and less domestic and nationalist, than those of the Greenbackers or Populists. Additionally, crypto critics will no doubt bristle at a comparison of crypto people—who are often equated with "tech bros"—to "simple and honest" farmers. Yet during the late nineteenth century, notions of the farmer and his significance in American society shifted. The yeoman farmer of lore was being replaced by "the farmer as producer-entrepreneur and small capitalist" (Goodwyn 1978:39). Further, it remains to be seen whether the crypto community will enter party politics. Though parts of the crypto community have long resisted politicisation, there are signs that this may be changing. Third-party presidential candidates have become regulars on the crypto conference circuit and some crypto people have formed lobbying groups to advocate for the community in Washington. Likewise, during the 2024 presidential campaign, Donald Trump mounted efforts to woo the crypto community.

This section's comparison of the crypto community to nineteenth-century reformers is not intended to be prescriptive. Its aim is rather to demonstrate that crypto belongs not in a graveyard of utopian dreams but that it ought to be placed in a much longer tradition of financial reform in the United States—specifically the anti-monopolist strain which objects to monopolies of money and credit and their distributive consequences. Yet, to understand the emergence of cryptocurrency, it is necessary to also trace what came after the defeat of the populists.

This chapter continues by tracking the development of securities markets and related regulations in the United States. As later chapters demonstrate, crypto people critique American securities markets and the regulations which shape them by focusing on their role in the distribution of capital and the accumulation of wealth. Crypto people similarly problematise the role of the SEC by questioning the legitimacy of its authority as an agency of unelected officials and by casting doubts on the competence and motives of its experts. Their critique relates to fundamental concerns about capital concentration, power centralisation, redistribution, and corruption—concerns which echo those of the anti-monopolists. These issues were also very much alive when twentieth-century efforts to market securities to average Americans began.

IV.   Taking stock of the securities market

Seeking national unity in the market

As the United States entered the twentieth century, little had been done to reform the financial system. Significant change failed to materialise until the 1910s, and by then, all that remained of the vanquished reformers' platforms was the "residues of anti-monopolist sentiment" (Ritter 1997: 278). The founding of the Federal Reserve, Goodwyn argues, "represented the culminating political triumph of the 'sound money' crusade of the 1890's" (1978: 267). The gold bugs had got their way. Further aspirations of democratic control of monetary policy were curtailed by the creation of the Fed, a strange, highly technocratic institution which amounted to "a unique marriage of public supervision and private interests, deliberately set apart from the elected government, though still part of it" (Greider 1987: 50).

Though the Populists had been defeated, the hardship which catalysed their movement remained. Gross inequality, coupled with waves of immigration, segregation in the South, the fight for women's suffrage, and the onset of World War I made for a fragmented society (Ott 2011). In other words, financial conservatives' fears that the working class had been radicalised had not been put to rest with the 1896 election. Something had to be done.

Departing from the radical thinking of the Populists, a solution was proposed which would be far more palatable to corporate interests. The notion of "investor democracy" essentially proposed to find a market-based solution to national disunity (ibid). Though suspicion of financial speculation had long been endemic to America, this began to shift in the early twentieth century as "a range of intellectual, corporate, and financial leaders embarked on a quest to reorient the American political and economic system around universal investment in financial securities" (ibid:4). This was not a uniform vision; proponents of investor democracy had a diversity of views, particularly with regard to the state and the degree to which it should participate as a regulator of the markets and an advocate for mass investment (ibid).

The vision of investor democracy quickly became entangled with the financing of national debt when the U.S. government inaugurated its War Loan program to fund World War I. Through this program, the government marketed bonds to the American people alongside a new "investor-centred theory of political economy" which encouraged Americans to link citizenship and community with the ownership of debt securities (ibid: 54). The program advertised its bonds to Americans who had not previously been granted a substantial role in American political or economic life, such as immigrants, women, and the working class (ibid: 56). Likewise, it sought their help in selling them—women's groups, including African American women's groups, workers, and immigrant associations were enlisted to secure bond purchases (ibid: 77). The War Loan program, therefore, was shot through with "imaginings of the social" (Bear 2020: 8) which were mobilised for the dual purposes of achieving national unity and supporting state accumulation.

As the interwar era began, yet another shift unfolded as corporate stocks replaced federal debt "as a superior vehicle for propertising the masses, advancing investor-citizenship, and democratizing the political economy" (Ott 2011: 128). The marketing of corporate securities to retail investors began, envisioned by economists at the time as a redistribution of the profits of corporations and industrialisation to average Americans. This was a solution that could also resolve disputes between labour and capital which threatened national harmony (ibid).

While the reformers of the nineteenth century saw the monetary standard and banking system as crucially informing the logics of redistribution and both financial and political inclusion in the United States, the twentieth-century proponents of investor democracy looked to the securities markets to fulfil this role. Indeed, the investor democracy ideal marked a kind of capitulation to the fears expressed by the Populists and other anti-monopolists in that it acknowledged that "corporate capitalism and mass consumer culture might erode democratic political traditions if citizens no longer exercised any claim of ownership over the means of production" (ibid: 189).

Just as securities investment was ascending, it became subject to vigorous debates about regulation, particularly in light of widespread fraud that threatened to repel the average Americans who had been recently refashioned into investors. These debates did not unfold in ways that contemporary observers might anticipate. Rather, the political legacy of the drive for investor democracy has been mixed: "the mass investment ideal both inspired demands for government intervention in the economy *and* nourished challenges to the liberal state" (ibid: 8).

The emergence of securities regulations

Originally, corporate securities were regulated by state governments under "Blue Sky laws," which got their name "because some lawmakers believed that 'if securities legislation was not passed, financial pirates would sell citizens everything in the state *but* the blue sky" (Keller & Gehlmann 1988: 331). The legislation was left to the states as the U.S. government questioned whether it had the constitutional authority to regulate securities on a federal level (ibid). The idea of disclosure—key to today's federal securities laws—emerged as a central regulatory theme early on as concerns mounted that "citizen-investors' faith in private enterprise and their fealty to their debt-issuing state were imperilled by swindlers," necessitating federal regulation of securities markets (Ott 2011: 116).

But disclosure requirements had been floated prior to the drive to create a citizenry of War Bond holders and retail investors. The Industrial Commission, convened in 1898 to study industrial power and consolidation, recommended government-instituted disclosure requirements for corporations. These requirements would achieve two aims: first, they would provide investors

with information about the company they were investing in; second, they would prevent corporations from inflating their stock prices and acting anti-competitively, a significant concern at the time (ibid). That the disclosures were intended to support competition highlighted a troubling trend toward centralisation in the American economy and the increasing consolidation of corporate power.

Further efforts at implementing disclosure requirements were present in bills introduced after World War I, apparently inspired by the British Companies Acts. The Securities Act of 1933 eventually enshrined disclosure requirements in law, requiring "disclosure through registration of securities unless the securities or the transaction are exempt" (Keller and Gehlmann 1988: 342). The following year, Congress passed further federal securities legislation with the Securities Exchange Act of 1934, which established the U.S. Securities Exchange Commission (SEC) and addressed other shortcomings in the Securities Act (ibid).

The SEC, governed by five political-appointee commissioners—one of whom sits as the chairman (Atkins & Bondi 2008: 370)— continues to regulate U.S. securities markets today and is tasked with "protecting investors, maintaining fair, orderly, and efficient markets, and facilitating capital formation"(U.S. Securities and Exchange Commission n.d.) it acts as a gatekeeper to the financial markets—reviewing and approving companies' disclosures which include information about their "operations, financial condition, results of operations, risk factors, and management" in addition to "audited financial statements" (U.S. Securities and Exchange Commission n.d.). As the following section shows, these bland descriptions of the agency's responsibilities obscure their distributional implications.

Disclosure requirements and financial exclusion

Disclosure policies are arguably an example of the "flawed assumptions" which often underlie state attempts to address the alleged economic irrationality of their citizenry in projects of financial inclusion. An emphasis on disclosure, for instance, assumes "that if people are better informed they will behave in a more rational/modern manner" (James 2012: 24; Barnes 2021). This was called into question when disclosures were first proposed by the Industrial

Commission, as its members "conceded that 'the state' could not 'act as guardians to foolish individuals' who could or would not analyse corporate reports" (Ott 2011: 24). Concerns emerged again after the passing of the Securities Act when critics "questioned whether many investors would benefit from the Act's disclosure requirements" given "the highly technical information provided" (Keller and Gehlmann 1988: 342).

Likewise, disclosure policies assume "disclosure will deter fraud and other predatory behaviour" (Barnes 2021: 1973). In fact, whether they deter corporations from engaging in such behaviour or simply provide shareholders with a means of holding corporations accountable is unclear. The litigation produced by disclosure policy violations, as Matt Levine has observed, sometimes borders on the absurd: "A company does something bad, or something bad happens to it. Its stock price goes down, because of the bad thing. Shareholders sue: Doing the bad thing and not immediately telling shareholders about it, the shareholders say, is securities fraud" (Levine 2019).

Investor protection aside, disclosure policies have changed the investing landscape in other significant ways—namely, they have proven effective at directing capital toward the private market and beyond the reach of most Americans. As legal scholars have argued, arduous disclosure requirements for public offerings mean businesses must have substantial legal resources. As a result, the requirements have likely encouraged corporations to conduct private offerings due to the cost of preparing and issuing the regular disclosures required of public companies (Barnes 2021: 1973). Private securities transactions are designed to "encompass conditions that reduce the risks that the public registration regime seeks to mitigate" and are therefore less complicated (ibid: 1974). The consequences of this were particularly visible in the statistics for 2019: "approximately seventy percent of funds raised in U.S. capital markets occurred in private markets, leaving a mere thirty percent to public markets" (ibid: 1970).

Though the investor democracy ideal promised Americans a share of corporate spoils, private placements have long been off limits, with access severely restricted since at least the 1980s. It was at this time that the accredited investor standard that dictates which investors can participate in private securities transactions emerged. Its lineage can be traced to the '33 Securities Act

which exempted some private transactions from disclosure laws, however, precisely *which* transactions were exempt was less clear (Bender 2016).

The Supreme Court offered clarification in a 1953 case, *Securities and Exchange Commission v. Ralston Purina Company,* establishing that a securities offering was not public if it was offered to investors who possessed "access to the information normally provided in a registration statement and the ability to fend for oneself in a transaction" (Bender 2016: 9). The SEC took this decision to mean that, in order to be able to participate in private offerings, investors "had to have 'sufficient knowledge and experience in financial and business matters to…evaluate the merits of the prospective investment or [be] able to bear the economic risk of the investment'" (ibid).

To determine which investors qualified, the SEC originally used a "subjective analysis", but this changed with the adoption of the Small Business Investment Incentive Act of 1980, which added a section to the Securities Act that "created a new private offering exemption available exclusively to 'accredited investors,' leaving the SEC to define who qualified as an accredited investor" with some guidance from Congress (ibid: 9). The SEC subsequently "adopted a comprehensive private offering exemption called Regulation D", the "foundation" of which "is the accredited investor standard" (ibid: 9-10).

This standard was initially purely class-based. To qualify as an accredited investor, a person was required to have an individual net worth, or joint net worth with a spouse, that was greater than $1 million, less the value of their primary residence. Alternatively, one could qualify with an individual income of greater than $200,000 or a joint income of more than $300,000 (ibid: 10). The exclusionary effect of these criteria has been staggering. In his 2016 analysis, Bender pointed to SEC data from 2010 which recorded about $1 trillion of registered securities offerings and $1 trillion of exempt (privately offered) securities (ibid: 11). He concluded that the net worth standard and the income standard excluded around 92.6 percent of Americans and 95 percent of Americans, respectively, from investing in "half of the securities offered for sale each year" (ibid: 11-12). With fewer IPOs and more private offerings, "the present situation will mean fewer

investment options for middle class Americans and even greater capital appreciation opportunities for the already wealthy," he concluded (ibid).

In 2020, the SEC expanded the standard to allow Americans to qualify via certain finance-related professions, such as "investment professionals," "directors, executive officers, or general partners" among others (U.S. Securities and Exchange Commission n.d.). Nonetheless, critics have argued that the 2020 change does little to improve access to private markets for retail investors. Barnes argues that the accredited investor standard not only separates investors on the basis of class, but also likely does so on the basis of race. She argues that, given available income distribution data, white Americans are more likely to meet the income and career requirements than black Americans. She adds that "a dearth of black [accredited investors] may disproportionately decrease the ability of black-owned businesses to obtain capital through private markets" (Barnes 2021:1989).

The basis for excluding the average investor from private markets is dubious at best. As Bender writes, the sophistication of institutional investors is often overstated—many have suffered huge losses from private investments, thus undermining the justification for the exclusivity of the private market (Bender 2016). With a burgeoning, but exclusive private market and a withering public market, Americans seeking investment opportunities outside the stock market have few options "other than low-performing public debt and treasury securities" (ibid: 42). Rather than yielding the redistributive effects desired by the investor democracy ideal, American securities markets, shaped by regulation, offer separate investment systems for moneyed Americans on the one hand, and the modest majority on the other. The consequence of this, later chapters show, is that Americans have also had differential access to the creation of generational wealth which sustains processes of social reproduction.

"At the dawn of the twenty-first century," historian Julia Ott writes, "the majority of U.S. households owned financial securities, and most Americans regarded broad-based investment as legitimate, perhaps even essential, for a vibrant democracy" (2011: 225). Yet, since the financial crisis, Americans have seen both trust in the markets and interest rates at historical lows, and low-yield assets have held little appeal. In the meantime, interest in crypto assets has exploded—

particularly among younger generations who have shunned the stock market and mutual funds. According to the Federal Reserve, millennials held only around 7 percent of corporate equity and mutual fund shares in the first quarter of 2024, while baby boomers held around 54 percent (The Federal Reserve 2024).

The reality of separate markets for separate classes, this chapter argues, places the failure of the investor democracy initiative in sharp relief—the vision fell well short of achieving its distributive and democratic aims. Nonetheless, its political legacy is significant, "belief in the primacy of shareholders," Ott[5] writes, "has retained its influence in ongoing debates over the proper relationship between the financial markets, the state, and the real economy" (2011:214). The language of politics, in other words, has changed: the nineteenth-century reformer's producer-citizen has been supplanted by the twentieth-century citizen-investor (ibid). This change is often reflected in the language of the crypto community, as exemplified in one mantra circulating at the time of my fieldwork: "with crypto, anyone can be an investor!"

V.   A democracy in debt

The dollar as "statecraft"

Thus far, this chapter has traced a long decline in Americans' ability to influence monetary policy and the nation's financial system through the means of representative democracy. This section highlights a further factor which has inhibited citizen participation in these areas: debt. First, it draws on Michael Hudson's work to discuss the centrality of U.S. debt to the post-war global monetary order and the implications for American citizens. Subsequently, this section pivots to highlight a different type of debt—the debt burden of the middle-class and elaborates on its effects.

In the crypto community, it is not uncommon to encounter discussions about "dollar hegemony," the "exportation of inflation," or, as Bitcoin Sign Guy put it, monetary policy as "statecraft" (Rizzo 2018). These remarks reflect the view that monetary policy is far from an innocuous or

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[5] Ott is a critical historian of capitalism

neutral tool; rather, they suggest that it is a powerful instrument linked to relations of domination and exploitation. Michael Hudson gives weight to and historicises these ideas in *Super Imperialism.* In the book, Hudson provides a detailed account of the making of the post-war monetary world order.

He argues that the United States ascended to its dominant position in the world, first by acting as a creditor to the nations which fought in World Wars I and II. Hudson explains that "on no previous occasion had any nation employed government capital to become unquestioned creditor vis-à-vis the world. It was something new in international finance: accumulation and concentration of international assets in the hands of a government, not in the diverse holdings of private capital accretions" (1972: 5). Initially, Hudson argues, the United States used its weight as creditor to dominate Europe through demanding the repayment of the war debts. This dealt a particularly harsh blow to its competitor, the British Empire, and succeeded in weakening Britain's once formidable economic strength. In so doing, the United States had gained access to new foreign markets for its agricultural exports and new investment opportunities for its financiers (ibid).

The IMF and the World Bank also emerged out of the post-war economic manoeuvrings of the United States and provided it with a "firm institutional edifice of world economic domination" (ibid: 52) with which to "facilitate the breaking up of the colonial spheres of influence" (ibid: 53). Other nations would be rendered mere "economic satellites of the U.S. economy" (ibid: 70), while developing nations, particularly, would suffer as the U.S. extracted their natural resources and flooded them with American agricultural exports at the expense of their own domestic agricultural growth (ibid: 126).

Hudson describes how, after decades of operating as a creditor nation, the U.S. improbably maintained its dominant status when it transitioned to a debtor nation. It did so by weaving its huge debts into the fabric of the global economy (Hudson 1972). By the 1960s, massive overseas military expenditures looked poised to unravel the dollar's link to gold, and the Vietnam War added further strain. "Instead of taxing the country to pay for the war," Hudson explains, "the

U.S. government engaged in the more politically acceptable practice of deficit financing" (ibid: 218).

At the time, other governments sought to check the U.S., encouraging it to reduce its spending. They also extolled the soundness of gold in an effort to discourage the U.S. from abandoning its commitment to redeeming dollars for gold in transactions conducted internationally (Hudson 1972; Elwell 2011). Yet in 1971, the United States halted the convertibility of dollars to gold, removing the remaining restriction on its spending and initiating a transition to fiat money. The Nixon administration subsequently resolved to "force the central banks of other countries to pick up the short-term debt of the United States and to include this debt among the reserve banking assets of other countries" (Hudson 1972: 265). In refashioning U.S. debts into other nations' central bank reserves, the United States had, in short, pulled off a coup. Debt had been rendered more powerful than credit and the dollar had become a deft imperialist weapon (ibid).

While Hudson's book clearly documents America's successful and brutal mobilisation of monetary policy to achieve its expansionist aims, the book also arguably reveals the role of deficit spending in undermining American citizens' influence on monetary and government policy. The quasi-gold standard that had, in the previous century, been lauded as a check on inflationary policies and irresponsible spending, was all that remained to constrain government expenditure. It crumbled under the weight of the government's imperialist ambitions. Ironically then, in the twentieth century, it was fiat money—for which the previous century's reformers had fought so hard—that delivered yet another blow to citizens' influence on monetary policy. In enabling the government to rely on deficit spending to finance overseas military and domestic programs, the government only required little buy-in from the people. Unlike a tax, deficit spending was more abstract and less directly felt.

Debt and downward mobility

As the 1970s came to a close and neoliberalism ascended, "the link between productivity and wages was chopped to bits: productivity rates have continued to rise, but wages have stagnated or even atrophied," Graeber writes (Graeber 2011: 375). Monetary policy was shifting again as

well. With pervasive inflation and the return of fiat money, economists turned to monetarism, which, like the monetary doctrines of the late nineteenth century, was primarily concerned with regulating the supply of currency, with expansion assumed to be inflationary (ibid). Likewise, the doctrine of central bank independence—effectively a twentieth-century reformulation of nineteenth-century anxieties that politics could manipulate monetary policy—grew popular, firmly enshrining monetary policy as the domain of technocrats (Dietsch et al. 2018).

Americans were also facing dimmer prospects than they had in prior decades. In spite of the tectonic shifts taking place in the global monetary order, by the end of World War II, the political unrest which marked the late nineteenth and early twentieth century had subsided somewhat. The withdrawal of threats of unrest, Graeber has argued, rested on a promise of upward mobility: the American working class knew "that their children had a reasonable chance of leaving the working class entirely" and had received a "tacit guarantee that increases in workers' productivity would be met by increases in wages" (2011:374). Many workers were also able to afford markers of middle-class wealth. The government subsidised home ownership, enabling many Americans to secure not only shelter, but a financial asset, upon repayment of the mortgage (Zaloom 2019).

But by the 1970s, Graeber argues, promises of upward mobility no longer rang true: "It would appear that capitalism as a system," he explains, "simply cannot extend such a deal to everyone…The result might be termed a crisis of inclusion" (2011: 375). The 1980s brought cuts to government budgets, which were keenly felt by public universities which, in turn, raised their tuition prices to subsidise aid for students who could not afford to pay. By the 1990s, students were taking on loans to afford tuition. American universities have continued to raise their tuition prices, and with education long linked to dreams of class mobility in the U.S., middle-class families have increasingly been forced to make difficult choices. In the face of stagnant earnings, retaining their class identity often means taking on huge debts (Zaloom 2019). Today, federal student debt amounts to $1.63 trillion, with generation X holding around 56 percent of the debt and millennials holding approximately 30 percent (Hanson 2023).

The wrongdoing of financial institutions that was exposed during the financial crisis has done little to soften Americans' discontent with their economic prospects. Bailouts with taxpayer money likewise dampened the public's trust in the technocratic "experts" who govern the economy and the markets. Years of low interest rates, which followed the crisis, meant that Americans faced fewer opportunities for growing their wealth—more risk and more reward could be found only in rarefied access to private placements. With discontent that is nearly as stagnant as wages, the spectre of the financial question has returned to the United States once more.

VI.   Conclusion

This chapter has traced a long historical lineage of cryptocurrency and some perennial problems in American capitalism while locating crypto's ancestors in the Greenbackers, anti-monopolists, and Populists of the nineteenth century. The death of their dream irrevocably shaped the development of the American financial system and economy, and it was in the decades after their defeat that a new, financialised vision of democratic participation and economic prosperity emerged, embodied in the securities markets. Yet, while Americans embraced investing, the shape of securities regulations unevenly distributed the fruits of America's corporate victors. Ambitious plans for an investor democracy came up short.

The twentieth century witnessed other major economic changes. America rose to become the dominant power in the global monetary order and abandoned its quasi-gold standard in favour of deficit spending. The primacy of this form of financing, this chapter argued, represents a further blow to those who seek democratic influence in monetary policy. Yet the competing visions of economy and society which featured in the fervent debates of the nineteenth century, and the question of what money is and could be, have not been put to rest.

Today, as Americans face mounting indebtedness and downward mobility, the crypto community has given these visions fresh life. Part of this chapter's mission has been to provide historical evidence that the concerns of the crypto community are far from marginal. It has also sought to write against existing works on the community which so often underestimate what is at

stake for its members. The limited scope of this chapter has made some omissions necessary. Perhaps the largest among them is the exclusion of groups that the crypto community readily identifies as its ancestors: the cypherpunks, crypto-anarchists, and free and open-source software communities. These groups have been covered extensively elsewhere, including by many of the authors cited earlier in this chapter. This chapter does not claim to represent a complete or definitive background story to the emergence of cryptocurrency, but one that importantly diverges from that given in technical materialist accounts. In offering a social historical account, this chapter has set the stage for ethnographic discussions of financial inclusion, speculation, value and power, memes, and community which unfold in the pages to come.

CHAPTER TWO:

The Making of Crypto Communities: Politics, Property, and Profit

In the fifteen years since the publication of the Bitcoin white paper, the crypto community has invented a steady supply of proverbs. Offered as wisdom to naïve newcomers and as a scolding reminder to those who ought to know better, some offer advice— "do your own research"— while others act as warnings. "Not your keys, not your coins," for example, cautions against entrusting private keys to a third party. Others still express widely-held beliefs, such as, "a coin is only as good as its community." It is this last saying that this chapter is concerned with. Salient throughout my fieldwork, it expresses the notion that technology alone cannot make a cryptocurrency successful—community is an essential ingredient.

As it happens, it is also an elusive ingredient. Though almost everyone I met agreed that community was vital to the success of crypto projects, few of them claimed to know how to create it. This did not prevent them from trying—experiments in community proliferated throughout the time I was in the field. These occurred alongside a cyclical expansion of the community as a bull market attracted huge numbers of newcomers to crypto. Likewise, questions of community took on new urgency as COVID-19 lockdowns confined my interlocutors—and everyone else—to their homes, leaving them starved of social interaction. Despite the influx of new people, the experiments in community that I studied were not obviously concerned with identity or with the drawing of boundaries between newcomers and "O.G.s". Rather, attempts to build community revolved around what are more accurately described as concerns about property and exchange.

More specifically, this chapter argues that, in crypto, the formation of community is perceived as taking place, in part, through the production and ownership of things—namely, coins and tokens. Attempts to create community centre on balancing what Bloch and Parry have described as the relationship between two transactional orders: the short- and long-term cycles of exchange (1989). In crypto, short-term exchange, which Bloch and Parry describe as "the legitimate domain of the individual—often acquisitive—activity" (1989:2) involves speculative trading of tokens and coins with profit as the aim. Long-term exchanges centre on the reproduction of

crypto communities as moral communities concerned with decentralisation, openness, censorship-resistance, economic freedom, and wealth. They include activities like building and "hodling" (holding assets). Short-term speculation on crypto assets, my interlocutors explained to me, is valued for the capital that it brings to the community. During bear markets, this capital is transformed into something that is socially useful as it is directed toward "building": long-term oriented activity such as inventing new protocols and infrastructures or improving existing ones.

Yet speculators often prove to be unruly, and creating "alignment" between individual holders of coins and tokens and the issuing communities has proven challenging. My interlocutors know that, as Bloch and Parry write, there is a "possibility that individual involvement in the short-term cycle will become an end in itself which is no longer subordinated to the reproduction of the larger cycle" (ibid:27). In other words, speculators are a boon but also a threat that must be managed. As a result, crypto people think carefully about the blockchain-based communities they design, and spend much time considering "the distribution of social entitlements" which, for Hann, constitute property (Hann 1998: 7). These processes of distribution involve a careful consideration of "cryptoeconomics." This has been characterised as "the use of incentives and cryptography to design new kinds of systems, applications, and networks"—a process which inevitably involves "speculating about people's future mental states and making assumptions about how they react to certain incentives" (Stark 2017). Put another way, crypto communities are, in short, the products of "technologies of imagination" which aim to "divine and manipulate the visible and invisible aspects" (Bear 2015b: 408) of human nature[6] in order to use them to achieve alignment between individual holders of coins and tokens and the issuing communities. The technologies of imagination that crypto people utilise "promise to draw humans closer to knowledge of the hidden patterns of society and the universe" (ibid:410) so that these patterns can be exploited and redirected toward desirable ends.

Throughout my fieldwork, technical "mechanisms" and financial "incentives" were the primary technologies of imagination with which the crypto community experimented. In practice, these

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[6] I use the term "human nature" here not to posit that such a thing actually exists or is knowable, but rather because this is a term that I have observed crypto people using. It perhaps reflects the influence of behavioural economics on the community.

mechanisms and incentives involved various means of distributing coins and tokens alongside efforts to place limits on "the dispositional acts of others" (Strathern 1998: 229)—in other words, on the rights of individuals to dispose of tokens. Mechanisms and incentives were built into technical infrastructure with the aim of achieving a balance between short-term speculation on coins and tokens, and activity oriented to the long-term. They were a means to "anticipate the future" behaviour of investors— "to stimulate its emergence' and to control it" (Bear 2020: 8), though they did not always do so successfully.

These mechanisms were deployed in tandem with ideas about ownership and governance that reflected broader concerns about concentrated wealth, both within crypto and beyond. They were also deployed as a response to frequent conflicts pertaining to two issues: first, the issue of people "dumping," or selling tokens and coins en masse; and second, the matter of what various community members—the creators of crypto projects, the holders of the projects' coins or tokens, and the "contributors" who offer their labour to these communities— owed to each other.

This chapter explores the link between community, property, and the mechanisms or technologies of imagination described above. First, it adds much-needed nuance to the existing literature by providing ethnographic details and analysis of the evolution of the crypto community. It subsequently delineates the types of property that exist in crypto as well as the mechanisms which aim to regulate their distribution and disposal. Finally, it explores and expands on the insights garnered in these sections through two ethnographic examples.

My analysis departs from the existing literature on crypto in two key ways. First, rather than focusing on a single community in isolation, this chapter scales up and down, looking first at the largest unit of crypto, the "crypto community" and subsequently at several smaller constituent communities. Second, it moves beyond analyses of crypto communities that confine themselves to discussions of money (see for example Caliskan 2022) to draw attention to other types of property that circulate within crypto. It takes as examples tokens that confer governance rights and tokens that confer "equity" in a community or in the future success of a "creator." A focus on property rather than money draws attention to the "overall political organisation" (Hann 1998: 47) of crypto, while the use of technologies of the imagination as an analytical device allows this

chapter to uncover the "invisible forces" (Bear 2015b) that crypto people seek to channel through this organising structure.

I.   Modelling the crypto community

In this section, I offer an analysis of how various crypto communities relate to each other and describe some of their shared traits. What I refer to as "the crypto community" throughout the thesis is, in fact, an umbrella term which posits a relationship between a variety of smaller communities. I consider these communities to be imagined totalities, which do not perfectly correspond to a concrete situation on the ground per se (Graeber 2001), but which nonetheless have important implications for the way crypto people think and act. In this section, rather than taking a single crypto community or even start-up in isolation, as much of the existing literature does, I start from a point of interrelatedness. This is essential, I argue, for capturing the crypto community's many voices and the ways in which individual communities are in dialogue with each other.

Below, I attempt to map out the evolution of the crypto community, though I stress that the map is incomplete and in the interest of brevity excludes developments which are less relevant to this chapter, such as privacy coins and enterprise blockchains. My analysis in this section is inspired by classic anthropological works on stateless societies and segmentarity[7]—especially Evans-Pritchard's work on the political organisation of the Nuer (1987). This framing is not my own invention—rather it resonates strongly with the way crypto people describe themselves. For instance, they often remark that crypto's many sub-communities resemble "tribes"—replete with all the loyalties, allegiances, and conflicts this term implies. Below, I demonstrate that the crypto community is dynamic and fragmented—thoroughly shaped by processes of fission (ibid: 284). I also highlight the logics and tensions that have shaped its emergence and contributed to crises of governance. I suggest that crypto people perceive Bitcoin and Ethereum as in opposition, and that this constitutes a central axis of difference in the crypto community. Additionally, I identify two core idioms through which difference is expressed: decentralisation and speculation. These

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[7] I am grateful to Deborah James for originally highlighting the similarity between crypto and stateless societies

details provide essential background knowledge for understanding the mechanisms through which crypto people imagine and build their communities.

General principles of community

Community is often loosely defined in crypto, but in practice, the term tends to refer to the people who coalesce around particular blockchain networks or protocols—developers, investors, speculators, and others. Ownership of the coin or token of the network or protocol—usually described as "skin in the game"—is generally a necessary condition for being considered part of the community, though it is not always sufficient. Some people hold coins or tokens with the hope of realising a profit in the future, and others because they are interested in the project or identify with it in some way—its memes, for example. Often though, these positions are not mutually exclusive. As one person explained in a meetup I held on "belongingness" in crypto, people often "come for the coin [and] stay for the community"—meaning they are initially attracted by the potential financial upside of investing in a particular crypto coin, but subsequently become enmeshed in the community surrounding the coin for other reasons.

Commitment to the ideological principles of the community, or the "narratives" which are thought to drive them, varies greatly amongst coin or token holders. In general, however, most communities are thought to have a set of "true believers" who are ideologically committed to the community's raison d'être. When belief in a community's mission bleeds into feelings of superiority and the conviction that one's community will triumph over all others, it is called "maximalism." The variability of ideological commitment means that some people speak of community with ambivalence while others are deeply dogmatic. My interlocutors often referred to their communities—only half-jokingly—as "cults" and "tribes," descriptions which allude to fierce allegiances and frequent inter-community conflicts. Yet the community-ness of groups in crypto is not necessarily a function of the number of true believers present, but rather a function of "engagement" or participation—whether it be in governance or technical development decisions or simply on social media. Amongst crypto people, community is recognised as something that is the product of ongoing actions.

Though newcomers are often characterised as transient speculators, almost everyone in crypto participates in speculating on tokens and coins. Most people consider speculation and profit as unproblematic when coupled with some degree of long-term commitment to engagement. For example, another participant in the belongingness meetup reflected on how community and profit are often assumed to be in tension by those outside crypto: "I think many people associate money with a dirty word. And it's like, oh, well, is [the community] not genuine anymore [if people are making money]? It can totally be genuine…But in the end we should surpass [profit]."

He explained further that token holders must be transformed from short-term investors into long-term participants: "If a way is found to actually engage those people and have them participate in doing something, and at the same time being token holders, I think that the community becomes a real community because the people are actually contributing to creating something." The means through which communities seek to transform these persons are the mechanisms that regulate the distribution and disposability of crypto property, and are discussed later in this chapter.

When speculation becomes an end in its own right, crypto people regard it less favourably. The ratio of active contributors to transient speculators tends to ebb and flow according to market conditions. Indeed, crypto people attribute great importance to the rhythms of "market cycles:" the notion that bear and bull markets are cyclical, almost seasonal, and that this cyclical movement is in some sense predictable. The crypto community's numbers expand greatly during bull markets, as stories of spectacular profits attract curious "normies."[8] Thus, membership is not static or stable, but always in flux. Likewise, these periods of expansion are more likely to coincide with periods of conflict in the community as the often intense speculative activity of the bull market tests crypto people's convictions about what constitutes a proper or worthwhile usage of their blockchain-based infrastructures.

New members are treated as less "serious" than long-standing members of the community, though veteran crypto people often mount efforts to "educate" newcomers with the aim of

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[8] "Regular" people or the "uninitiated"

helping them navigate common mishaps and avoid scams. The sayings featured at the beginning of this chapter often figure into these efforts. Inevitably, many of these newcomers abandon crypto when the bear market arrives and prices decline, though some of them stay. The people who remain through crypto's ups and downs are often characterised as crypto's "core" members. Riding out the vagaries of the crypto markets is described as a kind of "initiation" through which one proves his or her mettle and becomes a true member. The significance of this was often clear when my interlocutors introduced themselves to me or to a group of strangers in the context of a meetup. Rather than volunteering information about their backgrounds or personal lives, they often relayed the length of time they had "been in crypto" in addition to any roles they had held in particular crypto communities or companies. Experience, in other words, was the metric of credibility. However, this is not to say that inexperienced members are unwelcome—on the contrary, as I explain below, crypto people see the attraction of newcomers as vital to the long-term success of their projects. Those who have been around since Bitcoin's early days are afforded the title of "O.G." which marks them out as having a higher status than other members, though this status is not accepted as important, or indeed superior, by everyone.

Gatekeeping in crypto takes place largely through the use of community-specific slang and memes, which outsiders often find bewildering. Yet, this is checked by the openness of both the crypto community and the technologies it builds as well as its emphasis on self-help and valorisation of self-teaching. Vast numbers of educational resources have been developed to support people in their learning, and alongside my fieldwork, I participated in developing and writing some of these resources for various companies. This educational content, which includes "guides" to particular crypto projects, explanations of technical features and jargon among other things, also supports crypto people's broader aspirations to "mainstream adoption"—a vision which imagines crypto as something that will be widely used by "regular" people someday.

The insularity of crypto and its seemingly contradictory aspiration to reach the mainstream contributes to a central tension in the community. That is, crypto's disavowal of "permissioned," closed systems means that the community has little control over the types of people who engage with the technology and their intentions. This makes it particularly difficult to strike a balance between the short-term profits of speculating on coins and tokens and the longer-term goals of

building infrastructure that furthers crypto's morally-inscribed aims. In short, newcomers bring a vital infusion of capital, but also introduce a variety of hazards. Their inexperience makes them vulnerable to the scams which have tarnished crypto's reputation in the mainstream and their search for quick and easy profits threatens to subordinate crypto's resources to developing tokens and coins which meet their short-term speculative goals, but which are light on technological merit and do not contribute to crypto's long-term subsistence.

Technical and intellectual lineages

Individual crypto communities tend to take their names from either the blockchain network/ protocol they are associated with, or from the network/protocol's coin or token—for example, there is the Ethereum community, the Bitcoin community, the Solana community, the XRP community, and so on and so forth. Bitcoin was the original blockchain and community, and as such, every other crypto community descends from it in a technical and intellectual sense. By this, I mean that every crypto community borrows something from Bitcoin—whether in the sense that they iterate on the technical principles of its blockchain or in the sense that they adopt (or at least pay lip service to) its core values: decentralisation, openness, permissionlessness, and censorship resistance. Without Bitcoin, "crypto" would not exist. Yet this does not mean that other communities' technologies mirror the precise characteristics of Bitcoin—many do not— and many crypto communities see themselves as achieving something that Bitcoin does not— enhanced privacy and faster transactions for instance, on the technical level, or different political sensibilities on the community level.

Bitcoin was conceived as an e-cash system. Though ideas about what Bitcoin *is* have shifted somewhat—the notion that it is a store of value now dominates—ideas about what it is *not* have remained reasonably consistent. Though it did not take long for people to suggest that the blockchain could host more than one currency or that it had the potential for non-monetary use cases, the Bitcoin community has long been reluctant to embrace these ideas. Attempts to introduce new functionalities to Bitcoin began several years after its launch with "Bitcoin 2.0" protocols such as Counterparty and Coloured Coins, which both sought to enable the creation of additional assets on the Bitcoin blockchain (Kharif 2014). Yet some community members argued

that the blockchain, as a technology, was not up to the task. As one core developer explained to me, there were concerns that these new assets could "mess up incentives that stabilised" Bitcoin. Other members saw Bitcoin as well-suited to one purpose only—money—and did not support the use of the blockchain for other types of assets or financial applications. As a result, projects that wished to build on Bitcoin often "forked" its code to produce copies that they could iterate on freely, forming separate communities in the process.

Initially, it was through these forks that fission took place and the first new crypto communities were formed. Other groups splintered off from the Bitcoin community to build rival blockchains from scratch. Ethereum, for example, emerged with the express purpose of hosting the non-monetary applications Bitcoiners were hesitant to accept. It is, as a result, home to a vast quantity of sub-communities with their own "tokens"—some of which are money-like and some of which have other uses—as well as its own native currency, ether, which is used to pay for computational work on the Ethereum blockchain.

However, crypto people regard Bitcoin and Ethereum as having disparate visions in further ways. Bitcoin's approach to change is conservative and it has gained a reputation as slow, reliable, unwavering—even boring. It has a fixed supply currency of 21 million coins, and eschews "hard forks," which are changes to a blockchain's technical rules that are not "backwards compatible," meaning users are forced to update their software in order to continue using the network. Additionally, Bitcoiners often emphasise that Bitcoin's creator, Satoshi Nakamoto, exited the community in its early days and never again resurfaced. He remains anonymous, and many people speculate that he is dead as he has neither moved nor sold his enormously valuable trove of bitcoins. The absence of his involvement and influence, Bitcoiners argue, bolsters Bitcoin's decentralisation and, consequently, the integrity and independence of its community.

Ethereum, in contrast, has embraced the experimental. Its currency, ether, has no fixed supply and new sub-communities with their own applications and tokens emerge regularly. Compared to Bitcoin, change comes more swiftly and more frequently, and it has implemented several significant changes to its rules via hard forks. Notably, Ethereum executed its most controversial

hard fork after one of its earliest applications, The DAO, was hacked for $60 million worth of ether. In the aftermath of the hack, the hard fork created a new blockchain (Ethereum), in which the stolen funds were given back to their pre-hack owners, effectively unwinding the hack, while the old blockchain was renamed Ethereum Classic (Morris 2023). To some, the fork violated the core principles of blockchain—the ledger's history could not be changed for the benefit of some community members over others, no matter the circumstances. It was supposed to be immutable. Nonetheless, the majority of the community moved to the new fork, whilst a minority persisted with Ethereum Classic. Hence, the hard fork represented a fission event in the Ethereum community in which purists—those committed to the immutability of the blockchain—and pro-fork community members separated into opposed groups.

Despite the fallout of The DAO hack years before, Ethereum's approach to change and innovation gave it a reputation for being "exciting" and "fun" amongst my interlocutors. Unlike Bitcoin, Ethereum's founders are known and active in the community. Vitalik Buterin, the most famous among them, is a frequent target of Bitcoiners who, in interviews, sardonically described him to me as a "benevolent dictator."[9] They opined that Buterin, as well as the Ethereum Foundation—a non-profit which supports and funds activity in the Ethereum ecosystem—exercise influence over it, with the result that Ethereum is not "truly decentralised." These claims were vigorously disputed by members of the Ethereum community that I met.

The opposition between Bitcoin and Ethereum constitutes the main axis of difference within the crypto community, and difference is articulated through two main idioms: decentralisation (as demonstrated in the above claims) and speculation. Decentralisation is a term that links power, property, and production. When assessing a project's decentralisation, crypto people home in on the spatial distribution of infrastructure, as well as who owns and controls it. They ask questions such as: how many nodes does a blockchain network count and who controls them? How easy is it to participate in the verification of transactions and the creation of blocks? They also attend to questions of control: How many people participate in the writing of the project's code? Are there

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[9] This term is often used in open-source software communities which have powerful, but "benevolent" leaders. Other examples include Linus Torvalds, the creator of Linux, and Richard Stallman, the creator of GNU and the founder of the Free Software Foundation

checks and balances in place to prevent some community members from having more influence than others? And they ask questions about fairness and ownership: Do "whales"—owners of large quantities of coins or tokens—have more power than those with smaller holdings? Is it easier for some people to obtain coins or tokens than it is for others? As we will see later in this chapter, the pursuit of decentralisation greatly shapes communities, the mechanisms through which they distribute their coins or tokens, and their governance.

Speculation, the second idiom, is a term that evokes the short- and long-term orders mentioned at the beginning of this chapter. It is often referred to euphemistically, rather than directly. For example, following the 2020-2021 bull market, which was especially marked by feverish speculation on various Ethereum tokens, Bitcoiners began to declare that they are *Bitcoiners*, not *crypto people*. "Crypto people" was once a widely used and accepted term, but Bitcoiners claimed that it lumped them in with Ethereum and related blockchains which they said were full of scams. By this, they meant not only blatant examples of fraud, but also projects that had facilitated speculation—and sometimes, they went as far as calling everything that *wasn't* Bitcoin a scam.

In practice, the "scam" moniker was a means of dismissing projects that Bitcoiners saw as facilitating nothing more than short-term gains—something that was at odds with Bitcoin's longer-term store of value vision. As with decentralisation, concerns about speculation influence the structure of communities and frequently catalyse conflicts that amount to disputes over what community members owe to each other. These disagreements often reveal a contradiction at the core of recent blockchain projects, which I explore later in this chapter. Many new crypto projects claim to be "community-owned," but community ownership is achieved via the individual ownership of a community's tokens. Individuals' perceptions of their rights over exclusive private property often clash with the notion that tokens provide a "stake" in a community.

Growing pains: splinters, schisms, and scalability

Fission in both the Ethereum and Bitcoin communities has produced further sub-lineages of each blockchain, which are intellectually and technologically related to the original protocols. In Ethereum, some of these groups emerged during the initial coin offering (ICO) boom of 2017-2018 during which attempts to launch new crypto projects proliferated. ICOs provided people who had an idea for a crypto project with a means of financing it via the creation and sale of Ethereum-based tokens.[10]

Often described as combining elements of crowdfunding and initial public offerings (IPOs) of stocks, ICO projects accepted ether-denominated payments from "investors" and in return, investors received tokens. These tokens, the sellers claimed, did not constitute equity in the projects they were intended to fund, however. Instead, the projects typically claimed the tokens would have future utility in whatever product they were building. Likewise, ICO projects did not distribute the total supply of their tokens at once, but instead retained some quantity of tokens for team members, some for traditional investors, and some for promotional activities to bolster their user bases (Dale 2021a). While some projects eventually came to fruition, many turned out to be scams. ICOs attracted billions of dollars of investment and hordes of speculators. Coupled with the climbing prices of bitcoin and ether, the size of the community swelled as curious newcomers poured in. This swift expansion in Bitcoin and Ethereum's user bases left their blockchain infrastructures reeling under the strain of the newcomers.

With both Bitcoin and Ethereum experiencing new levels of demand, both communities questioned whether their technologies could accommodate it. As transaction fees increased and transaction processing times slowed, existing debates about "scalability" took on renewed urgency. Among the ICO projects that did eventually launch was a new category of crypto community that sought to solve the scalability crisis: so-called "Ethereum Killers," projects which sought to both emulate Ethereum's vision and eclipse its technical capacity in order to achieve faster transaction processing times and cheaper transaction fees. These projects were

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[10] Most ICOs took place on Ethereum at this point, though the first ICO was, in fact, conducted on Bitcoin by Mastercoin (later called Omni).

bold because they used Ethereum tokens to openly finance the creation of separate blockchains which were advertised as Ethereum competitors. Though they have had mixed success, Ethereum Killers have continued to emerge. They effectively amount to a sub-lineage of Ethereum which aspires to cannibalise its progenitor.

Meanwhile, debates about scalability in the Bitcoin community—dubbed the Block Size Debate—had also reached a breaking point and resulted in a schism. A group called Bitcoin Cash forked Bitcoin to create a new blockchain which was intended to preserve the original e-cash vision of the Bitcoin white paper. At the time of the schism, the notion that Bitcoin was a store of value was on the rise, and the divergent visions of what Bitcoin was had important implications for scalability (Rizzo 2016). More specifically, if Bitcoin were to function as a digital cash system, as Bitcoin Cash proponents argued it should, Bitcoin would need to accommodate more transactions, more quickly.

They sought to achieve this by increasing the size of Bitcoin's blocks. Why? Because transactions are "packaged" into blocks when verified, and the amount of data a block is able to contain acts as a constraint on the number of transactions that can be included in it. Increasing the size of blocks, therefore, would also increase the number of transactions that any block could contain. Bigger blocks would thus increase Bitcoin's transaction throughput, allowing it to accommodate the high volume of transactions that would be expected if it were to be used as digital cash. After prolonged attempts at convincing Bitcoiners to increase the block size, the group that would become Bitcoin Cash decided to fork the blockchain, creating both a distinct blockchain and community. Bitcoin Cash proponents' appeal to Satoshi Nakamoto's original vision represents another intriguing connection between the crypto community and classical studies of stateless societies. Here, Nakamoto appears as the long-dead progenitor of the lineage who is invoked as a means of "explain[ing] the relationship between the living" (Evans-Pritchard 1987: 285). After the schism, Bitcoin Cash claimed that it fulfilled Nakamoto's original intentions and was thus more authentic than his actual creation (Bitcoin).

More recently, both Bitcoin and Ethereum have turned to "layer-2" technologies in an attempt to overcome their current scaling limitations. These are not competitor blockchains, but instead

function as extensions to the existing blockchain where transactions can be offloaded for speedier processing and later communicated back to the main blockchain for recording in its ledger. Yet, despite these innovations, scaling remains a topic of ongoing discussion. Debates focus on the trade-offs blockchains must make to scale—the so-called "blockchain trilemma."

The blockchain trilemma holds that a blockchain cannot achieve security, decentralisation, and scalability all at once—at least one feature will necessarily be compromised. Ethereum killers, for example, have been accused of sacrificing decentralisation and security for speed. The formulation of the problem as such recognises a critical feature of scaling as described by Anna Tsing. That is, scalability means that "somehow, project elements had to be stabilised so that expansion added more elements without changing the program" (2012: 507). The blockchain trilemma posits that some elements are inevitably sacrificed in the process of scaling, and hints at the "nonscalability" (ibid: 506) of certain aspects of crypto. Scalability is also spoken of in the register of speculation, and is implicated in crypto people's understanding of long- and short-term transactional orders. Crypto people argue that in order to transform blockchains from vehicles of financial speculation into platforms for "useful" activity, they must scale.

Governance grievances

Debates about scalability in crypto have been historically linked to debates about governance. Coupled with the bitter memory of Ethereum's hard fork after the DAO hack, disagreements over scalability catalysed questions about the efficacy of existing systems for decision-making and the "collection of procedures, rules, and norms" (Werbach et al. 2024: 2) that enable it.

Bitcoin and Ethereum both rely on rough consensus to determine how to make changes to their networks. In short, paralleling the "Request For Comments" (RFCs) utilised by the creators of the internet, Bitcoin and Ethereum developers submit "Improvement Proposals" which are published for review by the community (De Filippi & Loveluck 2016: 13). Community members voice their opinions about these proposals through informal channels such as social media forums and conferences. Though developers ultimately decide whether to implement proposals, they must carefully consider whether proposals have the community's support. If proposals lack

community buy-in, members can assert themselves by refusing to update their software or by forking it. In such situations, the legitimacy of developers is likely to suffer (ibid) as it did in 2017 when heightened tensions around scaling led some community members to suggest that Bitcoin's core developers should be "fired."[11]

The chaos of Ethereum's post-DAO-hack hard fork and Bitcoin's Block Size Debate spurred some community members to imagine alternatives to rough consensus. The result, on-chain governance, was intended to make decision-making processes more democratic by enabling users to vote either directly or through elected representatives on changes to technical rules and other issues. To be eligible to vote, users must be token-holders, with one token representing one vote. Because this dynamic gives more voting weight to large token holders, on-chain governance has been criticised as plutocratic. Despite widespread frustration with rough consensus, on-chain governance systems have suffered from low participation rates, and, as a result, crypto people have launched experiments in incentivising participation (Werbach et al. 2024).

On-chain governance processes, I show later in this chapter, are sites where the technologies of imagination which are key to community-making are especially visible. The link between tokens and voting, coupled with concerns about plutocracy, makes questions of property distribution especially salient in processes of community-making. Achieving an ideal distribution of property, and therefore a democratic governance system, requires projects to "anticipate," "stimulate," and "control" (Bear 2020:8) the behaviour of investors through mechanisms and incentives.

With the above sections on crypto's general principles of community, its various blockchain lineages and offshoots, and its governance woes, I have provided a broad sketch of the development of the crypto community which has raised several important points. In the first section, I highlighted the variability of crypto people's commitment to crypto's long-term success and the widely held conviction that profit is not incompatible with community, so long

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[11] This was hyperbole. Bitcoin's developers contribute to the development of the software voluntarily and are not "hired' by anyone. Thus, they cannot actually be fired, so much as pressured out of the community.

as it is not an end in itself. I also suggested that the community expands and contracts in a cyclical way and that community-ness is a function of participation. Crypto's openness means that the short-term speculators who arrive during periods of expansion are, despite some gatekeeping efforts, difficult to manage.

In the section on blockchain lineages, I demonstrated that individual crypto communities are not only technically and intellectually linked, but are in constant dialogue with each other—engaged in ongoing assessments of each other's worth in the dual registers of decentralisation and speculation. This section has aimed to demonstrate that individual crypto communities never develop in a vacuum but always against the backdrop of projects past and present, successful and ill-fated.

The subsequent section on "splinter" communities illustrated that new crypto communities have formed over time through forks and other processes of secession. In short, in the absence of coercion and force, it is through the "right to exit" that differences are often litigated in the crypto community. This section also described how the 2017 bull market forced both Bitcoin and Ethereum to confront questions of scalability and how the ICO era brought about a proliferation of "sub-communities" to Ethereum, which had varying durability. The last section on governance detailed how the anxieties around secession and scalability precipitated a reconsideration of rough consensus governance systems and spurred some community members to advocate for on-chain governance. Taken together, these sections have shown that community in crypto is a deeply political affair. As in stateless societies documented elsewhere, the crypto community's politics are characterised by processes of fission and the dynamic construction of opposition and relatedness between its sub-groups (Evans-Pritchard 1987: 296).

II.   Tokens of community

This chapter turns now to the types of property that exist in crypto and frames problems of distribution and disposability. It returns to ICOs which, I argue, solidified a connection between property and community in crypto and raised questions about the best and fairest ways to distribute tokens, as well as the dilemma of how to convince token holders to keep them. These

issues remained relevant when I started fieldwork in 2019 and greatly influenced the thinking of the communities which I describe later in this chapter.

Categories of crypto property

In crypto, there are two broad categories of property: coins and tokens, though these labels are sometimes used interchangeably. For the purposes of this chapter, I use "coins" to refer to the first type of property that emerged in crypto: the "native" currencies which are produced through the creation of a blockchain's blocks as a reward for the miners or validators who verify the blockchain's transactions. This category includes well-known cryptocurrencies such as bitcoin and ether, and coins play a key role in the incentive structures of blockchains. Miners verify transactions and secure the Bitcoin network, for example, in order to receive the bitcoins they receive as transaction fees and for creating blocks. Attempts to create additional assets on the blockchain, which I refer to as "tokens," came later through the Bitcoin 2.0 protocols described in the previous section as well as through blockchains like Ethereum. Tokens are assets that can be created by anyone with the appropriate technical knowledge for a variety of use cases. Unlike coins, they are not produced via block rewards and do not figure into the blockchain's core incentive structures. They are divided into two categories: non-fungible and fungible.

Non-fungible tokens (NFTs) are each unique, while fungible tokens have identical features. NFTs are most often associated with digital collectibles and artworks, though they have also been experimented with in commercial contexts, especially in supply chain management. I set NFTs aside here, as they are not a central focus of this thesis or chapter. The forthcoming sections of this chapter are instead concerned with fungible tokens. In Ethereum, the issuance of these tokens flourished when developers created a standard for fungible token creation (dubbed ERC-20), which made the tokens interoperable on the Ethereum blockchain and paved the way for the masses of tokens issued in ICOs.

ICOs quickly attracted the attention of regulators, especially the U.S. Securities Exchange Commission (SEC) who argued that initial coin offerings were unregistered (and hence, illegal) securities offerings and quickly commenced enforcement actions. This led to a scramble to find a

way to salvage the future of tokens—if they were deemed securities, both tokens and the fundraising they enabled would be off-limits to all but accredited investors. The solution the community gravitated toward was to divide tokens into two categories: utility tokens and security tokens. Utility tokens serve a function in the product or network for which they were launched, such as acting as a means of payment or a reward (CoinMarketCap n.d.) Security tokens, meanwhile, have the characteristics of an investment contract as evaluated through the SEC's Howey test framework. The framework states that "an 'investment contract' exists when there is the investment of money in a common enterprise with a reasonable expectation of profits to be derived from the efforts of others"(U.S. Securities and Exchange Commission n.d.).

These categories were, however, less firm and less distinct than they sound on paper. The SEC offered little beyond the Howey test and a few ominous, unofficial statements to those who sought to clarify under what circumstances a token constituted a security. The agency refused to create token-specific securities rules and instead adopted an antagonistic posture which has been widely described as regulation through enforcement. In the crypto community, the result was general confusion (Bennington 2017). The mechanisms and incentives—the technologies of imagination—deployed by crypto people to anticipate and control the behaviour of investors, now also had to contend with the behaviour of regulators. It is these mechanisms that this chapter will discuss next.

Problems of disposability

Arguably, it was the ICO boom that marked the moment when crypto people started making explicit links between property—specifically tokens—and community. In doing so, they raised important questions about the distribution and disposability of tokens that greatly influenced the communities featured later in this chapter.

But how did this connection between tokens and community come about? ICOs spawned droves of new crypto projects that were all potential—they existed in few meaningful ways—except for in the tokens they had launched. The products they had promised to build took months or even years to create, if they manifested at all. Yet, in the meantime, the projects had groups of token-

holders who were supposed to constitute their future users. However, because of their interoperability, the tokens were exchangeable and were widely traded which meant that their prices could and did fluctuate (Dale 2021b).

If a project's token holders disposed of their tokens all at once, the token price declined and interest in the project was at risk of disappearing altogether. It was in the projects' interests, therefore, to keep their token prices up and to keep token holders engaged—especially since project teams kept a portion of the issued tokens and stood to gain from any increase in their price (ibid). There was a circularity to this: project founders knew people wanted to hold valuable tokens, yet tokens could only be valuable if people wanted to hold them. Many founders came to regard community as the elusive key that could unlock this dynamic, but creating it was another problem entirely.

Meanwhile, as a result of the unrealised and provisional nature of what they had promised to build, the teams behind projects found themselves under increasing demands from token holders who insisted on development "roadmaps," regular updates, and transparency. The projects responded with "ask me anything" (AMA) sessions online, detailed websites, and a managed presence on social media platforms such as Twitter, Telegram, Discord, and Reddit. Community increasingly seemed like something that required administering, and paid "community managers" emerged to take up the task. Yet, these communication strategies and channels failed to transform short-term speculators (token holders) into long-term participants.

Consider, for example, one interlocutor's description of his prior experience as a community manager for an ICO project. "Token holders, he said, "demanded to be informed and they were not nice at all. They were really not nice. [They were] like, 'I want to know this, and I have a right to know this.'" These demands worsened when the community experienced a crisis, he explained: "Well, at some point [the project] got hacked and it got even worse. Then you saw that there was zero community. They were just like 'but will my coin still pump?' They were not like, 'how could I help out?' None of it. Everyone was just attacking. And I still continued answering questions in a friendly way."

For this former community manager, a moment of crisis had revealed that the "community" he managed was a community in name only. Its members cared only for the potential profits that a "pump" could provide. The future of the community and the question of whether it could survive the hack it had experienced was of little consequence to the token holders—beyond immediate concerns about price and profit. Experiences such as this one were common in the ICO era. Token holders bought and sold tokens quickly and ICO projects struggled to reproduce the "hodling" that was common to both Bitcoin and Ethereum, the exemplars of strong and "authentic" community.

The intensity of speculation during the period left project teams searching for solutions that could solve what venture capitalist Kyle Samani termed the "token velocity problem:" how to provide investors with a "compelling reason" to hold utility tokens such that the token achieves an ideal rate of exchange—in other words, how to create a real community. Tokens, Samani explains, have a high velocity when they are exchanged frequently and a low velocity if they are held. In order to realise a price that represents the "full intrinsic value" of the token, tokens must be bought and sold to some extent, otherwise, they would be illiquid, which would cause them to "trade at a discount." "Velocity," he concluded, "is one of the key levers that will influence long-term, non-speculative value" and could be balanced via incorporating various "mechanisms" into the project's protocol design (Samani 2017).

The token velocity problem is a technical, and rather economistic, way of describing a key dilemma in attempts to create communities capable of balancing short- and long-term exchanges—one that ultimately pertains to property rights. That is, tokens belong to individuals who have the right to dispose of them as they please. Reframing the token velocity problem in terms of disposability makes it clear that it is not just about the speed with which people exchange tokens, but also the "social context" (Strathern 1998: 229) in which they dispose of them.

Consider the following restatement of the problem: Project founders want their tokens to represent the value of the product they are building or have built. They distribute some tokens to the public and keep some for themselves and for future distributions. But members of the public

can dispose of their tokens as they like and are doing so frequently in acts of short-term speculation. In the absence of a substantial number of people holding the token for the long-term, there is no price floor that ensures the token will have a long-term value. The token is supposed to "capture the value the protocol is creating" (Samani 2017), but it has been subordinated to short-term profit-seeking. Yet, if the public ceases to dispose of their tokens entirely, this will also have a detrimental effect on the token price because it will be too onerous to acquire the tokens. Rights of disposal must be tempered by mechanisms which create a balance of exchanging and holding such that these rights are "exercised in the appropriate milieu" (Strathern 1998: 229).

Crypto people have developed a variety of mechanisms that are designed to coexist with, yet moderate, the property rights of individual token holders. Some examples include token staking, in which token holders receive rewards for locking up their tokens for a fixed period of time during which they cannot trade or move them; token vesting schedules, which allow certain token holders, such as project developers or venture capitalists, to sell their share of tokens only after a predetermined waiting period (Stevens 2022) and multi-signature wallets (multi-sigs), a type of crypto wallet that requires multiple people to authorise transactions such that funds cannot be moved by a single party (Mcshane 2022).

These mechanisms are "technologies of the imagination" in Sneath et al.'s sense that they "serve to precipitate outcomes that they do not fully condition" (2009: 25). Each seeks to "divine and manipulate" (Bear 2015b: 408) the behaviour of token holders and makes assumptions about their rationality. It is through these mechanisms that the architects of crypto projects seek to transform token holders into community participants and to convert tokens into property that "ceases to threaten and actually sustains" (Carsten 1989: 118) the project and its community. In this way, mechanisms aim to transform sites of short-term token speculation into authentic communities.

Project developers and investors can also use mechanisms such as token vesting to make their intentions transparent to token holders and, in doing so, acknowledge the obligations they have to them. Scams were common during the ICO era, as were pump and dump schemes in which

speculators engaged in coordinated buying and selling of tokens to manipulate their price. As a result, prospective buyers of ICO tokens looked for signs that the issuing project was not a scam that would simply "dump" tokens on the market and exit with the profits. Token vesting signalled that project developers and investors were committed to the community for the long-term—they had "skin in the game"—and were, quite literally, invested in its success.

Dramas of distribution

As a new means of putting tokens into circulation, ICOs drew attention to the way that property is distributed in crypto communities and contributed to concerns that some distribution strategies unfairly advantaged some crypto people over others. Many ICOs were, in fact, two-part sales. Prior to offering their tokens to the public, some projects conducted a "private sale," in which select investors could purchase tokens at a discount. These investors were largely "crypto insiders" and venture capitalists, which raised concerns, as reporter Brady Dale put it at the time, that conducting a pre-sale "degrades the whole point of ICOs to begin with—that everyone from farmers in Idaho to Silicon Valley board members were to be given an equal seat at the table" (Dale 2017). As a result of threats from the SEC, some projects opted to eschew public token sales altogether in favour of private sales to accredited investors only[12] (Casey 2017) and others conducted offerings that used cryptocurrency exchanges as intermediaries.

The concept of setting aside a portion of tokens for a select group was hardly new, however. Ethereum's founders conducted an initial coin offering in 2015, two years before ICOs became popular, and distributed approximately 72 million ether to investors and contributors (Kim 2022). Ether is a coin, not a token, that was at that time, produced when blocks were mined as a reward for miners.[13] As a result, the distribution to investors and contributors was referred to as a "pre-mine" instead of a pre-sale. But these types of allocations were not just limited to projects that conducted ICOs—other projects had launched with similar arrangements, some more transparently than others.

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[12] These utilised the "Special Agreements for Future Tokens" or SAFT framework in an attempt to comply with securities regulations (see Casey 2017)

[13] Ethereum has since transitioned from mining to staking as the mechanism for securing the blockchain and validating transactions

For many members of the crypto community, pre-sales, pre-mines, and comparable allocations were unfair because they gave rights of access to some over others. They also compromised the decentralisation of the blockchain because they created arbitrary concentrations of wealth and centres of power. All of these factors resulted in a "misalignment" between the various members of the community that was often conceived of as a problem of disposability. For example, pre-mines and pre-sales created "whales"—large holders of tokens—that could "dump on" the community at any time, profiting from privileged rights of access while driving down the value of everyone else's tokens.

Many crypto people held up Bitcoin as the exemplar of fair distribution practices—there was no pre-mine or pre-sale before it launched. In order to obtain bitcoins, people simply had to show up and mine them. Nonetheless, others pointed out that the number of people who did so was small and that mining has become prohibitively expensive and cumbersome for the average hobbyist. These debates about distribution in crypto often take on a Rawlsian perspective of "justice as fairness" (Rawls 1999: 11). In other words, crypto property ought to be allocated according to Rawls' "original position":

> Among the essential features of this situation is that no one knows his place in society, his class position or social status, nor does anyone know his fortune in the distribution of natural assets and abilities, his intelligence, strength, and the like (ibid:11).

For many crypto people, pre-mines, pre-sales, and other exclusive allocations create an asymmetry between the beneficiaries of these distributions and other token holders which is incompatible with the principle of justice as fairness. In the next section of this chapter, I describe how these debates came to a head, culminating in the "fair launch" movement in which crypto people demanded that new projects launch their tokens in a way that did not give anyone, especially private investors and team members, an unfair advantage in obtaining tokens.

First, however, it is necessary to briefly describe a few final mechanisms of distribution that are relevant to this chapter. I start with coins. So far, we have seen that coins can be distributed via the creation of blocks of transactions as rewards for miners. These miners later sell coins onward to other buyers in order to cover their expenses. In the case of Ethereum and other projects, coins

were also distributed prior to the launch of the blockchain to select team members and others in a so-called pre-mine. In addition to being created via block rewards and pre-mines, coins can be distributed through the forking of a blockchain. For example, when blockchain A experiences a hard fork which creates blockchain B, anyone who holds any quantity of the native coin of blockchain A will receive an equivalent quantity of the native coin of blockchain B.

As for mechanisms for distributing tokens, we have seen that initial coin offerings, or ICOs, allow crypto projects to distribute their tokens via sales to the public, and sometimes, to select groups of investors via pre-sales. Many mechanisms for distributing tokens are framed in terms of rewards or even gifts. "Airdrops," for instance, are effectively gifts—free tokens dropped into crypto wallets, generally for one of two reasons. In the first, they act as objects that "push the limits" (Hart 2009: 93) of the issuing projects outward, incentivising new people to engage with them in attempts to build community. In the second, airdrops act as a reward for behaviours that projects deem beneficial to the long-term subsistence of their community.

These distributions can be substantial, with allocations amounting to as much as tens of thousands of dollars worth of tokens at the time of disbursal. As a result, many crypto people have attempted to maximise their potential for receiving airdrops by anticipating the kinds of behaviours projects are likely to reward. Conceived as mechanisms that could convert token holders into community members, airdrops have become objects of speculation in their own right—a prime example of the "indeterminate" effects of technologies of imagination (Sneath et al. 2009:19). Yet airdrops come with risks. Not only do they create a large, unexpected tax burden for their recipients, they have also been utilised by scammers who distribute tokens with the aim of ensnaring unsuspecting recipients in phishing scams when they attempt to sell their allocations. When used as such, airdrops might constitute what Mauss described as "fatal" or "poison" gifts (Mauss 1990: 81).

A final category of distribution mechanism concerns automated market makers (AMMs), decentralised cryptocurrency exchanges which eschew traditional order books in favour of algorithms and "pools" of tokens, which are furnished by users. AMMs generally do not take custody of users' tokens to facilitate exchanges. Instead they allow users to deposit their tokens

into smart contracts—the pools. AMM algorithms take the number of tokens in a given pool—its liquidity—into account when setting token prices and facilitate swaps between tokens via the pools (Coinbase n.d.). These are token-to-token exchanges, they do not deal in fiat currencies as with centralised exchanges. Because they are decentralised and non-custodial, AMMs do not require users to provide ID or complete anti-money laundering and terrorist financing checks (known as Know Your Customer (KYC) procedures in the United States). Anyone can start a liquidity pool for a token and anyone can swap tokens. As a result, AMMs have provided an alternative for projects that wish to distribute tokens to the public but who fear the legal liability of an ICO. Automated market makers also distribute their own tokens—liquidity provider tokens (LPs)—to reward users who contribute tokens to pools.

III.   Two experiments in community-making

This section presents two ethnographic examples which capture the dynamics described in the preceding pages. I draw on material I collected about decentralised finance (DeFi) and social tokens, two sub-communities of Ethereum, to make concrete my earlier assertion that community formation takes place via the production and ownership of things. I explore these communities' attempts to balance long- and short-term exchanges via the creation of alignment through mechanisms acting on the distribution and disposability of tokens.

Social tokens: "making social capital a little more capital"

Discussions about community shifted significantly during the two years I was in the field. When I started research in the autumn of 2019, crypto people emphasised the open, permissionless, ownerless nature of public blockchains such as Ethereum and Bitcoin and conceptualised their communities in similar terms. Though the blockchain facilitated the creation and exchange of private property, the infrastructure itself was conceptualised as a "public good." However, by the spring of 2020, new ideas about community began to take hold that reframed both the blockchain and community through the lens of ownership.

This shift first became apparent when I heard about social or personal tokens which proposed to "tokenise" people and communities. Talk of tokenising real-world assets—real estate, luxury goods, commodities—had been common during the ICO boom. But social tokens took the logic of tokenisation even further and, unsurprisingly, were controversial from the start. Critiques of social tokens often claimed the tokens were examples of hyper-financialisation.

The tokens are issued by a variety of enterprising individuals—influencers, digital artists, aspiring musicians, niche internet communities of all stripes, and even some celebrities. Enthusiasts claim that social tokens enable creators to build communities around themselves and monetise the forms of value that they create through their interactions online. As the founder of a social tokens platform told me, social tokens are about "making social capital a little more capital." The forms of value the tokens capture, advocates claim, are normally appropriated by Web 2.0 platforms such as Facebook or YouTube. Social tokens were conceived as a means of fighting this dynamic—of "taking back" and "realigning" relationships with fans or community members in an explicit break with the "platform serfdom" of Web2. In this way, social token issuers perceived the tokens not as new instances of financialisation, but as responses to existing processes of financialisation carried out by Web2 platforms in which social relationships had been subjected to value extraction. Social tokens also reprised the ICO vision that anyone could be an investor and provided an opportunity for people to become stakeholders in others' futures. Conceived of as investing opportunities, social tokens represented not the financialisation of social relationships, but the socialisation of financial investments.

Issuing a social token

Tokenising oneself or one's community, in practice, meant issuing branded tokens on a blockchain, usually Ethereum. In the case of social tokens issued by individuals, this broke with crypto convention in a significant way: crypto communities were supposed to be decentralised —not centred on the personality, career, or reputation of one person. Social tokens, therefore, embodied an uncomfortable tension between leadership and decentralisation—an odd blend of hierarchy and consensus-based politics that is reminiscent of older debates in the anthropology of politics regarding stateless societies (James 2011: 335).

For those who lacked the technical skill to code their tokens, several start-ups offered to do the programming work in exchange for retaining a share of the tokens. In the name of participant observation, I launched a social token myself: the Milano token. Lacking the technical skills to write the code, I approached one of the aforementioned start-ups, which enthusiastically agreed to create the token on my behalf. We had a few preliminary discussions about why I wanted to launch the token. Almost immediately, the start-up raised issues discussed throughout this chapter: could I give them an idea of how I planned to distribute the token to my community and the kinds of token-denominated rewards I planned to offer? For what purpose did I envision using my "social money"?

I had little notion of the best way to distribute tokens, and I understood even less how to create rewards that people were likely to want and that would incentivise long-term participation in my "community." I responded, rather vaguely, that I planned to distribute my token through interactions on Twitter and to the people I met at the crypto meetups I planned to attend after the pandemic, which I wrongly assumed would be over quickly. The start-up assessed my prospects for commanding a "community"—seemingly largely against the combined potential of my current gig as an academic, my prior history as a reporter, and the number of Twitter followers I had acquired in the course of these two brief careers. Next, we workshopped a few token names. I originally suggested calling my tokens "Annaliese Coins" but was rebuffed— "coins," a start-up employee told me, had an "archaic vibe…similar to using .com in a company's name." After a few more exchanges, we settled on calling my token Milano and assigning it the ticker[14] $MILANO.

My token would have a supply of 10 million, and as a fee for its services, the start-up would retain around 1 million tokens. The start-up's allocation proved controversial amongst some of my interlocutors and triggered concerns about misalignment. One person told me that he didn't "believe that issuers should be capturing a percentage of the tokens they issue"—it was bad for creators and replicated the extractive behaviour of Web2 platforms. The "right model," he

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[14] Tickers are also used in the stock market. If my token had ever been listed on a crypto exchange, it would have appeared in ticker form

suggested, would be to charge creators a software-as-a-service (SaaS) fee or a one-time fee for using the software." "It's really frustrating that people are trying to create a business model that is profiting off the backs of creators," he lamented. "We need to find more equitable and equitably-aligned business models; taking a percentage of the tokens is not it."

Alignment was also on the mind of the start-up that issued my tokens. Milano tokens had a vesting schedule—I received only a small fraction of tokens at the time of creation with the rest divided into fixed tranches that would be disbursed to me at regular intervals of a few years. This mechanism meant that my rights to dispose of the tokens were moderated from the very start— the start-up had anticipated that these tokens could easily be directed toward short-term, profit-seeking aims. Though it was not just me they were worried about—the informational guide they provided warned that it was only a matter of time before someone created a pool of my tokens on an automated market maker. Though I was as free as anyone else to create the pool, they suggested that I prioritise building a community around my token first—profit-seeking must be put on hold until the seeds had been sowed for the longer-term exchanges that are the markers of community.

Social tokens as equity

Though I decided that my token would function as a sort of personal credit—people who bought it could use it to access my time or skills—most personal token issuers I met thought social tokens provided "equity" in a community or, the case of individual issuers, as "direct stakeholders in their success." This was an explicit break with ICOs which had disavowed the idea that tokens provided equity and was, as a result, risky from a regulatory perspective.

In an interview, one issuer—Simon[15]—described how he created a community around himself via issuing a social token. He saw his token holders as investors in his future. These people "invest in many things," he explained proudly, but they invested in him, an aspiring entrepreneur, because they "think I have a high potential." His token holders were largely strangers—close friends and family had not purchased his token. Yet, he said his relationship

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[15] All names in this chapter have been changed for confidentiality reasons

with token holders was different from that between venture capitalists and the start-up founders they fund. For token holders, investing in his social token was "like half money, half philanthropy." I later met Jason, one of Simon's token holders who affirmed much of this. He described the reason for his investment:

> "We've never met, but at the same time I believe in him, I put myself in his shoes…I'm a strong believer in karma in general and passing it forward and also selfless giving, just to give anyone without anything in return. Anything I can give, I try to do it. You grow friendships that way. It helps if you invest in a low-price coin and it doubles in value—that's the icing on the cake, but it's never my only intention."

For Jason, his investment was an act of "selfless giving" that was not made less authentic by its potential financial upside. Indeed, I later learned that he was even a major market-maker for Simon's tokens. He explained that investing in Simon's personal tokens represented a chance to be a part of his development—Simon could potentially become *someone*. "My whole thing is the greater story is that you know you were part of Steve Job's growth," he said, referring to the former CEO of Apple. In the event that Simon becomes successful and even famous, holding Simon's personal tokens will serve two purposes. First, it will act as proof that Jason recognised Simon's potential early on and second, it will act as a reward for doing so, as the token price will likely increase with Simon's success. In other words, "the whole point of social tokens," as another interlocutor explained, "is for your community to make a profit with you."

Owning community

The notion that social tokens constituted "equity" also recast community through the lens of ownership. Web2 platforms already "owned" online communities, thus, social tokens were simply a way of removing these tech companies as intermediaries. Likewise, giving people an ownership stake in their communities via social tokens could facilitate "a sense of responsibility for shared spaces," as one interviewee put it. Developments in newly booming decentralised finance (DeFi) communities bolstered this trend.

In keeping with the anti-monopolist sentiments described in the historical chapter, developers of DeFi protocols seek to create decentralised versions of traditional financial services on the blockchain, such as borrowing and lending, derivatives trading, and various means of earning

interest on crypto coins and tokens. DeFi had been slowly developing for several years, but exploded over the course of several months in mid-2020, a period crypto people dubbed "DeFi Summer." New projects launched nearly every day, attracting millions of dollars worth of investors' crypto assets, some of which were swiftly lost to hacks and bugs. These projects largely used on-chain governance systems and issued governance tokens, which entitled their holders to vote on changes to the project.

Project founders had learned from the regulatory woes of ICO projects and adopted several new strategies in an attempt to anticipate the behaviour of regulators and mitigate their liability. For example, they often launched projects anonymously. Yet, as with ICOs, scams were common as were "rug pulls"—situations in which project developers launch a project, promote its accompanying token, raise funds from investors, and subsequently disappear with the money. Concerns pertaining to token disposability surfaced once again and investors demanded that projects utilise multi-sig wallets to mitigate the chances of rug pulls. One founder explained that it was necessary to "handcuff" oneself to the protocol via the use of token vesting schedules and multi-sigs to demonstrate absolute commitment. "You need to operate in a way where no one need trust you," he said.

Likewise, the issuance of "governance tokens" was a clear attempt to establish DeFi tokens as utility tokens rather than securities. They were bolstered by projects' (dubious) claims that they were "valueless." Nonetheless, investors vied to earn the tokens and their prices fluctuated greatly, fuelling further short-term speculation. Distributional concerns were resurrected from the ICO era as ideas of ownership took hold in the community. DeFi communities should be "community-owned," people claimed. This idea also appealed to project developers who conjectured that on-chain governance gave weight to claims that the communities were controlled by no single person or entity. This might make it harder for regulators to find someone to sue.

Fair launches and hidden wealth

Distributional concerns also led to demands that governance tokens should be issued via "fair launches"—distributions that did not give anyone, especially private investors and project contributors, an unfair advantage in obtaining tokens. This mechanism was critical to creating "the conditions for a healthy and sustainable network of contributors," an investor explained during a talk I attended. "A diverse set of contributors," he added, "can help build a more useful, robust and decentralised protocol." Fair launches would create alignment between community members via the concept of ownership which harmonised "the long-term commitment of the community and the economics of the protocol," another investor said. These distribution mechanisms also supported goals of mainstream adoption by transforming the protocols from sites of "degenerate" speculation, as people described it at the time, to something "useful."

How did fair launches work? In another lesson from the ICO era, tokens were distributed as rewards rather than through sales. In some cases, this meant tokens were gifted via airdrops. In other cases, the token was "earned" via the provisioning of "liquidity." This was because DeFi protocols such as automated market makers (AMMs) and lending operations needed large quantities of tokens in their smart contracts in order for their products to work. In exchange for supplying "liquidity," as deposits of tokens were called, protocols promised to reward providers with tokens that would entitle them to participate in governance processes. Because governance tokens adhered to a common technical standard, they were interoperable, meaning holders could and did deposit their tokens in other DeFi protocols with the aim of earning interest. This was termed "composability" and entangled DeFi communities in layers of complicated risks and incentives.

Despite attempts to distribute ownership of governance tokens widely across the community via fair launches, crypto people often expressed concerns that DeFi was, in reality, just as unjust as the traditional financial system. Mechanisms for imagining and directing the behaviour of investors were not achieving their desired outcomes, and crypto people sought to explain the "real forces at work behind the scenes" (Bear 2015b: 414) that could account for this.

One explanation held that DeFi was dominated by whales, whose activity was made transparent by the blockchain, but mysterious by the pseudo-anonymity it afforded. Alternative theories posited that traditional financial firms such as Jane Street and Jump Capital—new entrants to the crypto scene—were manipulating DeFi tokens. In these situations, it was the supposed transparency of the blockchain, the notion that "everything is in the open" (Rakopoulos 2018: 387) that generated theories about the invisible forces that shape the crypto community. The ability to track the movement of various players' assets on the blockchain through transaction analysis afforded the possibility of speculating about the nefarious activities in which they might be engaged. More than that, it afforded the tantalising possibility of securing a paper trail that could confirm such speculations. As Rakopoulos has argued, "occluded wealth elicits imaginaries of good and evil" (ibid:378) which produce conspiracy theories. Conjectures about the problematic behaviour of whales and institutional investors arose "as a doubting mechanism, the offspring of contemporary 'clean', audited political regimes, based on accountability and of political debunking of secrecy" (ibid: 378). In other words, it was the very auditability of the blockchain that, paradoxically, provided the grounds for accusations of hidden wealth, dispersed across a variety of blockchain addresses—the owners' identities shielded by the pseudonyms afforded by their public keys. The failure of crypto people's technologies of imagination to achieve the desired outcome of fairness, coupled with the transparency of the blockchain, gave rise to suspicions that the "community" that had emerged around DeFi was neither as fair, nor as decentralised as advertised. Those who had an affinity for its purported principles of justice felt alienated.

What is owed when a community is owned?

While distributional concerns gave rise to claims about hidden wealth that could undermine the making of community, DeFi founders and social token issuers found themselves affronted by unexpected obligations created by the community. More specifically, they expressed frustration at the claims token holders asserted over their labour, attention, and time. Though several social token issuers I met emphasised that their tokens helped them create close ties with their communities, they also said that their tokens' price fluctuations had negatively impacted their mental health. "When you create a social token, all of the criticism goes to you," one person

explained. Unlike ICOs and other crypto projects, "if the token doesn't succeed, it's attached to your personality—everything about you."

One day, a friend who had issued a social token told me that his token had recently been listed on a popular website that ranked tokens according to various metrics. The listing caused his token to "pump," he said. He went on to describe how this had made him feel "obligated" to put additional labour into his token—to make it worth something. He also worried about the disposability of the token—as a result of the price pump, people had started to hold the token. He could no longer simply *give* it to people because "they may just dump it"—and he owed it to his token holders to prevent that from happening. Later, to his dismay, someone did indeed "dump" 1 ether worth of his tokens—no small amount for a thinly traded token.

In DeFi, obligations to community members were also keenly felt. In a 2021 blog post titled "Building in DeFi sucks (part 2)," Andre Cronje, a particularly prolific and brash DeFi developer aired a series of grievances. "You can spend months or years building on something you thought would take a few weeks," he wrote, "Add hundreds (sometimes thousands) of people shouting on Telegram, Discord, and Twitter 'when will it be released? Why hasn't it been released? Give us an update!' And often, significantly more hostile messages." He lamented that too few people cared about a project's development and claimed people were "waiting for a 'price shifting event.'" "They don't actually want to use your product," he complained, "they only want to use the 'narrative' of your product to make money." He echoed a line from the social tokens community: "Your success belongs to your 'community,' but your failure is 100% your own." "Community," he concluded, "is bullshit" (Cronje 2021).

For Cronje, the demands he experienced from token holders were all about price and profit—they were not interested in becoming community members, which would involve contributing to or supporting the long-term success of the project. By his account, if token holders were actual community members, they would have cared more about the project's technical development and the integrity of this process. Community, he suggests, is "bullshit." It is just another "narrative," a compelling façade that people can project onto their speculative investments in order to produce more profit.

In sum, mechanisms that linked community, property, and ownership were deployed as strategies to transform short-term token holders into long-term community participants. Yet the accounts above indicate that these strategies have brought mixed success. In these examples, the languages of community and ownership simply allowed short-term investors to make greater demands on project founders and contributors, who found that leadership came not just with influence, but with obligation. The mechanisms deployed to convert short-term investors into long-term community members, therefore, had not succeeded in tempering short-term exchanges for the benefit of longer-term ones.

IV.   Conclusion

Throughout my fieldwork, many people asked for my professional opinion, as an anthropologist, on what makes communities "work." This chapter likely leaves this question unanswered. Indeed, I maintain that I am hardly qualified to answer it given that, in the end, my own token experiment flopped spectacularly. However, this chapter hopes to stimulate further reflection by drawing attention to the technologies through which communities are imagined and the tensions that inform their design.

This analysis has dissected the relationship between community and property by focusing on the incentives and mechanisms through which crypto people imagine and build community. It detailed the convoluted evolution of the crypto community and suggested that its political organisation shares features of stateless societies noted for their segmentary lineages. In this vein, I identified Bitcoin and Ethereum as the central axis of difference in the crypto community and decentralisation and speculation as two idioms through which people discuss and assess community, and out of which opposition is construed. These concerns permeate the mechanisms which regulate the distribution and disposability of tokens in crypto and, when they fail, animate concerns about the intentions of token holders, the hidden wealth of whales, and the malign intentions of a few traditional financial firms.

Though the communities featured in this chapter may seem self-referential—I have argued as much—their attempts at community-making are not only inward-looking. Social tokens, I

pointed out, respond directly to the dynamics of extraction pioneered by Web2 platforms. Meanwhile, DeFi communities with their Rawlsian fair launches deliberately construct their identities and practices in contradistinction to those of the mainstream economy and traditional financial institutions.

What, in conclusion, can we say about the idea of "community" in crypto? What does it mean when crypto people insist that "a coin is only as good as its community"? Rather than approaching community as something that results from feelings of belongingness or affinity, community in crypto is something that is conceptualised in political terms. It is a term that is perhaps best described as embodying the *ideal* of what should be held in common—specifically rights of access to public infrastructures, the power to govern them, the opportunity to access to the wealth they generate, and a long-term commitment to their success. Disputes over the precise means through which the ideal of community can and ought to be realised, however, are likely to catalyse the creation of further groups, keen to try their hand at achieving it.

CHAPTER THREE:

"Have Fun Staying Poor": Cryptocurrency as a Technology of Financial Inclusion

The 33rd chair of the U.S. Securities and Exchange Commission (SEC) stares into the camera. He stands in the hallway of a modern office building—the glass and steel surrounds reflect fluorescent light onto his pale, balding head. He is alone, the empty black office chairs visible through the glass wall behind him make for a barren picture. The chairs are askew, suggesting the past presence of the workers that jilted them. A tree can be briefly seen through a distant window, its verdant leaves an alien intrusion in this white-collar wasteland. The chairman, Gary Gensler, a sixty-four-year-old Goldman Sachs alumnus with a fatherly demeanour, has chosen this backdrop from which to deliver financial advice to college students.

"I'd bet that most of you are thinking about money in one way or another," he starts. "Should I join a meal-plan or buy groceries? Should I make coffee at home, or hit up the coffee shop?" he shrugs as the camera gets closer. But this video is not about expenses, Gensler clarifies, nearly stumbling. "What I want to talk about is savings. Start saving early, and start saving often," he advises, as a graphic of a blue piggy bank receiving a gold coin appears next to him. Assuming a defensive posture, hands up, Gensler continues, "I know it sounds a little odd, you're still in college. But just for a moment, if you were to save $5 a week and you earned maybe 8% starting off while you're at college, you may have $130,000 plus saved by the time of retirement at 65. Just from five dollars a week." More gold coins fall from the top of the screen, settling into an inelegant equation: coins + % = more coins (Gensler 2021).

"But if instead, you waited until, let's say, you're forty years old to start saving," he says, producing a frown, "to get to the same numbers, you'd need about $30 a week" (ibid). "So," he concludes, "start early, save often." "And if I may," he smiles, "one other thing, maybe go to office hours" (ibid).

This video, posted by the SEC on Twitter and widely distributed by the crypto community was also roundly ridiculed by them. Prominent crypto voices expressed scepticism about the validity

of Gensler's claims: "Why would anyone save money when inflation is 5% and interest is 0.5%?" asked one CEO (twobitidiot 2021). A community manager was equally defiant: "Where exactly should people be earning this 8% APY? My bank offers me 0.01% APY…Any decent opportunity in TradFi[16] requires an 'accredited investor' status, which realistically no student can qualify for" (ChainLinkGod 2021).One developer characterised Gensler, whose net worth is reportedly valued between $40 million and $119 million (Bain 2021), as out-of-touch. He zeroed in on a trope in the video that has been long bemoaned by millennials: the notion that the source of their financial precarity is their proclivity for purchasing $5 coffees:

> I like when rich people talk about the choice between making coffee or buying coffee—the false dichotomy of assuming that would make or break any poor person because [rich people are] so disconnected from the real pain of poverty (josephdelong 2021).

Multiple commenters lamented the SEC's recent role in quashing a lending product launched by a major exchange that would have allowed investors to earn 4% interest or "yield" on their crypto-asset deposits. One investor and educator wrote, "I'm sure lots of people would've loved to have taken advantage of Coinbase's Lend product in order to earn a decent 4% yield on their savings. But now they can't because you 'protected' them from it" (sassal0x 2021).
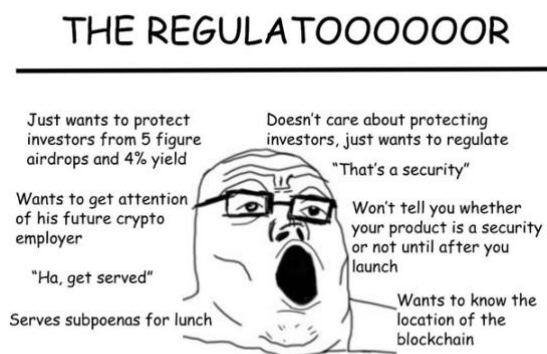
Figure 2 A meme parodying U.S. securities regulators (Unknown 2021a)

Another commenter levelled yet another critique by posting a meme titled "The Regulatoooooor" (Figure 2) which made light of an exasperating trend—many regulators involved in policing the

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[16] TradFi is an abbreviation for traditional finance

crypto community often take lucrative advisory positions at crypto start-ups after leaving their government jobs. Such positions exist because these same regulators have created a regulatory environment in which more is left unsaid than said, and in which enforcement actions with vague legal logic have substituted for rulemaking, turning compliance into a guessing game for crypto companies.

Gensler's message, then, was all wrong. His fatherly demeanour was not charming, but an expression of a paternalistic approach to financial regulation that much of the crypto community deplores. Why is it, some community members have asked, that in America you can own as many guns as you would like but the government does not allow the average citizen to invest in private placements, hedge funds, private equity, or venture capital?

To the crypto community, Gensler's video was an act of trolling—he couldn't possibly think his advice was practical. Several aspects of the video seem to suggest that this feeling may not be entirely unfounded. Much of Gensler's advice, for example, is extremely vague. Though the crypto community interpreted the video as recommending the use of savings accounts, the chairman never references savings accounts, or even banks, throughout his monologue. Nor do the video's graphics—instead of using an illustration of a bank, the video opts for a blue piggy bank graphic in keeping with its paternal tone. Where college students must deposit their savings to earn 8% interest is left unstated, though in practice, a regulated financial institution is almost as unlikely to deliver these returns as the porcine alternative. Likewise, the video uses graphics of gold coins instead of dollar bills, bizarrely conflating commodity money with fiat money. Closer observation reveals that, in one shot, the gold coins even bear the euro sign (€).

The video, in short, offers little practical advice. Instead, it implies that financial security is simply the sum of two things: sound individual choices and prudent investing. But this fantasy was firmly rejected by nearly every one of the 5,949 comments on the video, which repeatedly mentioned inflation, low interest rates offered by savings accounts, student debt, and other issues which ultimately emphasised the impact of economic governance on individuals' ability to build savings and wealth. Likewise, commenters emphasised the role of speculation in accumulating

wealth today—speculation that is off limits to the more than 90 percent of Americans who do not qualify as "accredited investors" and therefore cannot participate in the private capital markets.

These issues surfaced often throughout my fieldwork as my interlocutors repeatedly told me that conventional routes of obtaining wealth and financial security were no longer viable. Unable to attain traditional markers of affluence—such as home ownership—young adults are turning to new asset classes like crypto, they explained, in an effort to build "generational wealth" in new ways. In doing so, they are problematising entrenched ideas about "the most legitimate ways of accumulating and redistributing wealth" (Roitman 2003: 215) while offering a new account of what it means to be "financially included."

Historically, the term "financial inclusion" has been deployed in policy documents that are concerned with the global poor and attempts to remedy their lack of access to basic financial services such as bank accounts and loans. However, crypto people have a more expansive view of the term and posit that a much broader portion of the population is being financially excluded. Unlike in the case of the much-studied phenomenon of microfinance, for example, they are not concerned with democratising access to credit. Instead, they are troubled by contemporary monetary policy and the legitimacy of the experts who implement it. They are interested in speculation and problematise the gatekeeping of markets, debt-laden states, transaction censorship, financial surveillance, and inequality. This account has yet to be taken seriously by academics, but it is one that is deeply engaged with issues that anthropologists and others have long been concerned with.

For crypto people, the line between inclusion and exclusion often falls along generational lines. My interlocutors often distinguished themselves, largely millennials, from the baby boomers or "boomers," who, in their view, have consolidated both their wealth and their grip on the governance of the economy at the expense of younger generations. Unlike in other ethnographic contexts, crypto people do not look to the state to facilitate their financial inclusion or ameliorate their financial insecurity, nor could their solution be characterised as purely market-based. Facing a crisis-ridden economy and the prospect of downward mobility, the community has

sought a new financial future based on the social relationships facilitated by, and centred around, the blockchain.

This chapter explores cryptocurrency as a technology of financial inclusion and tracks the distinct but related manifestations of this idea in the Bitcoin and Ethereum communities. It contends that their accounts of financial inclusion are ultimately reactions to financial precarity, including limited access to risk, the prospect of downward mobility, financial insecurity, and pervasive discontent with economic policy and paternalistic regulation. This chapter also explores the reactions of non-crypto actors—the state, the media, and others—to the community's pursuit of wealth and financial security. They have largely sought to characterise crypto as an immoral, speculative bubble— "wretched excess," as Berkshire Hathaway's Charlie Munger put it—something that is riddled with scams and malintent and ought to be regulated away (Munger 2023). Though their criticisms often serve to pathologise crypto people as gamblers or criminals (or both) and seek to counter crypto people's claims about financial inclusion and economic freedom, the crypto community remains undaunted. Replies to such criticisms are often delivered in four words—"have fun staying poor"—a sardonic phrase which underscores the community's conviction that crypto represents an opportunity to build wealth that is unparalleled in TradFi.[17]

Critics and crypto people are engaged in more than a battle of words, however. This chapter shows that at the heart of critics' discourse is the notion that crypto is "unsanctioned wealth." This term, coined by anthropologist Janet Roitman, describes "wealth that contrasts [with] representations of ideal economic practice and legitimate modes of redistribution" (2005: 75) and which "involves accumulation that is not authorised by the prevailing socioeconomic hierarchy, or both official and unofficial instances of regulation" (ibid:79). Like Roitman's Cameroonian interlocutors, crypto people have "etched out a space of economic mobility and taken up cultural and political idioms that either subvert or upend prevailing logics of redistribution and authority" (ibid:95).

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[17] TradFi is a contraction of "traditional finance"

This chapter first builds on historical material from chapter one to situate the crypto community's claims that crypto is a technology of financial inclusion, demonstrating that American financial institutions have long operated with policies of financial exclusion that reflect hierarchies of gender, class, and race in the United States. The chapter subsequently turns to the blockchain, analysing it as a technology that carries out relational work (Zelizer 2012) as it organises social relationships in direct contrast with the coercive hierarchies facilitated by conventional economic institutions. Next, the chapter examines Bitcoin and Ethereum and articulates their visions of financial inclusion, which have been shaped by monetary policy and interactions with regulators, respectively. Finally, the chapter analyses the claims of regulators and other crypto critics, attending to the moral and "social evaluations" (Bear 2020:2) inherent in the narratives they have advanced about crypto.

I.   Financial exclusion in the United States

Chapter one traced a long decline in Americans' ability to influence monetary and financial policy through democratic means. The defeat of the Populist movement in 1896 marked the end of serious attempts to exert democratic control over the American financial system (Goodwyn 1978), while the century which followed was marked by "resignation" and marred by "the assumption of economic progress" (ibid: xv). In the aftermath of the Populists' defeat, the twentieth century witnessed attempts to create an "investor democracy," which was conceived as a means of achieving national unity without threatening elite interests, first via the sale of war bonds and subsequently via the mass-marketing of corporate securities (Ott 2011).

It was during the early decades of the twentieth century that pivotal securities regulations emerged with disclosure requirements at their core. Yet, chapter one explained, these requirements have driven capital from the public markets to their private counterparts. Private placements, however, are off-limits to the vast majority of Americans who do not meet the class-based criteria of the U.S. Securities and Exchange Commission's accredited investor standard. The latter half of the twentieth century saw the suspension of the dollar's convertibility into gold as well as unprecedented defence spending which rendered the United States a debtor nation.

Wages have stagnated since these latter decades and Americans have become more indebted. As their prospects have narrowed, their lives have become more precarious.

What chapter one does not capture, however, is how financial services institutions like banks have contributed to the precarity that increasingly marks Americans' lives. Below, building on the claims summarised here, I draw on Lisa Servon's work to zoom in on how these institutions' policies have historically sanctioned particular social hierarchies and how they have, more recently, doubled-down on rent-seeking strategies that have negatively impacted many Americans' finances. Taken together, I argue, that these factors have contributed to the appeal of alternatives like crypto.

Banking and the new middle-class

If the dominant American narrative of the twentieth century was one of economic progress, as Goodwyn claims, Servon's book, *The Unbanking of America,* demonstrates that for many twenty-first-century Americans, this narrative no longer rings true. Servon describes a deeply dysfunctional consumer finance system and the way that Americans must patch together their subsistence via meagre wages, overdrafts, payday loans, check cashing services, and informal lending and savings strategies in the face of receding welfare and contracting credit (Servon 2017). Servon conducted research first by working at a check cashing service in the Bronx, then at a payday loan office in Oakland and, finally, as a volunteer for a Virginia-based advice hotline for people struggling to repay payday loans. Policymakers generally portray check cashing services and payday loan providers as "the bad guys," Servon writes, while banks are construed as the "good guys" (ibid: xvii). But banks "do a lousy job of serving" almost everyone but the wealthiest Americans, she contends, and are particularly impractical for those who lack financial security (ibid: xix).

Servon highlights that banks have long excluded certain Americans from accessing their services and details the ways they have sanctioned particular racial, gendered, and class hierarchies. For example, redlining—in which the Home Owners' Loan Corporation "used racial and socioeconomic characteristics to determine whether a neighbourhood was a safe investment"—

was used to deny black Americans access to loans and marked out entire neighbourhoods as unworthy of investment (ibid:42). Financial institutions have also discriminated against women—Servon notes that until the passing of the 1974 Equal Credit Opportunity Act, banks assessed a woman's creditworthiness against the "financial standing" and "wishes" of her husband (ibid: 65).

More recently, banks have shifted their business models in ways that penalise people who lack financial security and stability—formerly the trappings of middle-class life. These institutions have increasingly turned to fees to bolster their bottom lines—from overdrafts to debit card replacements to taking a cut of international transactions, Servon shows that banks have leaned into rentier capitalism. At the same time, they have ceased to provide small loans and have poured resources into complying with shifting regulations. Payday loans and check cashing services have proliferated to fill the gaps left by banks, and Servon offers a far more nuanced picture of these businesses than is normally provided. For example, she details how many of the employees at these businesses rely on the very services they provide to others (ibid). Yet policymakers fail to recognise this, instead assuming, as James has found elsewhere, "a classic distinction between borrowers and lenders with a separate regulatory strategy appropriate for each, rather than recognising their interdependence and mutually reinforcing character" (James 2012: 24). Likewise, for Servon, to villainise check cashing services and payday lenders is to ignore the role they play as "lenders-of-last resort for borrowers with no other options" (Servon 2017:83).

Servon's findings echo the claims of my interlocutors: "We assume that educated, neatly dressed, accomplished students don't share the struggles of the black and brown 'underbanked' living in the poorest neighbourhoods," she writes, "But many do. It's time we understood that a much larger group of people is feeling the effects of economic insecurity" (ibid:118). Millennials, the working class, and the middle-class all suffer from financial insecurity, she finds: "Instability is the new normal" (ibid:48). These findings echo those of anthropologists working inside the United States (see for example Zaloom 2019)—and strikingly—those working in the global south. For example, in the South African context, James found that "the

people who turn out to be most in debt are not the poorest of the poor, but the 'black diamonds': the upwardly mobile and fast-growing African middle-class" (James 2012:20).

Echoing James' work as well as statements by my interlocutors, Servon complicates the stereotype of the imperilled consumer who makes poor decisions due to being uninformed or irrational (James 2012), arguing that "we need to rethink our assumptions about the way people make decisions. Most people have very good reasons for doing what they do with their money" (Servon 2017:168). Mandating that banks provide further disclosures on their products, she contends, is unlikely to help consumers as disclosure "tends to result in long fine-print documents that no one reads or understands" (ibid: 173).

Nor is regulation a panacea. Servon suggests that regulations have directed banks' funds away from innovation into compliance and have contributed to banks' shift away from small loans—the consequence being that services providing costlier forms of credit have grown as a result (ibid). Whatever the solution, the reality is that increasing numbers of Americans are fed up with, or simply do not trust, banks. Millennials especially distrust traditional financial services institutions and contest the fees levied by banks. They simply "don't think banks should be charging them when the banks are holding on to their money," Servon reports (ibid: 111). While she notes that a variety of fintech companies have emerged to capture the business of the discontented, I would add that many millennials and other members of Servon's "new middle class" (ibid:50) have also sought refuge in crypto.

Why? What Servon's book makes clear is that the reckoning with inequality that was promised in the aftermath of the financial crisis never came to fruition. Though the narrative of economic progress Goodwyn describes may persist only in the annals of the twentieth century, his observation that Americans have resigned themselves to political impotency still stands: "People do not believe they can do much 'in politics' to affect substantively either their own daily lives or the inherited patterns of power and privilege within their society" (Goodwyn 1978: xiii). Indeed, the nineteenth-century reformers' worries that waning economic opportunity would deal a blow to democracy (Ritter 1997) seem to be supported by contemporary events. For, in order to "rectify the situation of liability that pervades their lives" (Roitman 2003: 215), people are not

making legislative demands. Rather, they seek an "escape hatch," to use the words of my interlocutors, from the doldrums of democracy and the traditional financial system—one that offers the tantalising possibility of acquiring "generational wealth." This is wealth which can do more than merely providing basic subsistence or servicing debt—it is wealth that contributes to social reproduction, or to use the framing of chapter two, to the long-term transactional order (Bloch and Parry 1989).

II.   Crypto as a technology of financial inclusion

Though the Bitcoin and Ethereum communities diverge somewhat on their theories of financial inclusion, the basis for their theories is the same: they are premised on the way the blockchain organises social relationships. More specifically, the structure of the blockchain enables the creation of consensual relationships—which importantly includes the ability to opt in and out.

To fully grasp this, it's necessary to understand that the core innovation of the blockchain was its solution to the double spend problem—the difficulty of ensuring that digital currency users are unable to spend a digital coin more than once. This was a technical problem: unlike cash, which is physically transferred from a payee to the recipient (and of which counterfeiting is rigorously policed by governments), digital files are easily copied and changes to those files are not easily tracked. But it was also a social problem—until Bitcoin the use of a trusted middleman to verify transactions was the only means of preventing double spending in online commerce. This empowered the banks and fintech companies that feature in Servon's book to control the flow of money online, enabling them to extract fees from users, gather users' data, and censor users' transactions.

With Bitcoin, Satoshi Nakamoto offered users the ability to refuse these extractive relationships and others worse still. His alternative was a distributed network run by a global, open system of computers, each of which contributes to maintaining a shared ledger of all the transactions carried out on the network in its native currency, bitcoin. Miners around the world confirm transactions, and no single entity can reverse or censor transactions. The ledger is tamper-proof because every change to the network is tracked on the blockchain, and changing the content of

one block—for the purpose of fraud, for example—is impossible because every other block in the network must be changed to do so.

Though scholars such as Nigel Dodd have argued that crypto people believe "Bitcoin has *replaced* social and political relations" (Dodd 2018: 37), I found little evidence that this was the case. For crypto people, blockchains like Bitcoin do not substitute for, or eliminate, social relationships—miners, developers, node operators, and users are of course present. Rather, the blockchain is an "infrastructure for the social" (Pardo-Guerra 2019: 108). It is something that reorganises social relationships and places technical constraints on what actors can and cannot do within the system. To put this another way, the blockchain codifies the kind of "relational work" (Zelizer 2012) that is always a part of economic activity—the "creative effort people make establishing, maintaining, transforming, and terminating interpersonal relations" (ibid:149). It is something that "bound[s], format[s], and enact[s]" relations between people (Pardo-Guerra 2019:122). Importantly though, Nakamoto's blockchain was an outward-looking design—it was intended to act, not only on the social relations between the people that use it, but also on the relationships between those users and other "market participants" (ibid:122), such as the state, banks, and fintech companies.

An understanding of the blockchain as such indicates that it is not trustless, as has often been said, but rather a system which enables users to refuse some relationships in favour of others—a system which gives people more choice over whom they trust, as one interlocutor explained. It is not based on debt or coercion, but on consent and consensus. It does not deny entry to anyone on the basis of their location, nationality, political persuasions, etc. and can be used by anyone with an internet connection and enough funds to purchase some crypto. This does not mean, as is sometimes supposed, that a user must have the funds to buy a whole bitcoin or an entire ether. These currencies, like others, are divisible. All of this amounts to a very different social contract than that which is offered by the traditional financial system. It is one that is premised on decentralisation, openness, permissionlessness, censorship-resistance, and transparency. These characteristics are also the basis for crypto people's claims regarding financial inclusion.

Like all cryptocurrency communities, the Bitcoin community comprises members with a wide
variety of political views and affiliations. It is therefore necessary to caution that the notion of
financial inclusion does not have a fixed meaning that is shared amongst all members.
Nonetheless, Bitcoiners' conversations about financial inclusion tend to revolve around two
central themes: the state and monetary policy. Calls for the separation of money and state are
frequent and emanate from a conviction that the government and central bankers are incompetent
managers of monetary policy who debase the currency. This concern is more complex than it
may initially seem and is closely related to several issues discussed in chapter one: the creation
of an independent central bank (the Federal Reserve) in the early twentieth century, the shift off
the gold standard, and the rise of deficit spending.

When Bitcoiners reference the debasement of currency, they are speaking partly about
quantitative easing—which they refer to as "money printing"—but also about debt. "The
euphemisms for fiat money printing are legion," Bitcoin developer and educator Jimmy Song
writes in a blog post: "'loans,' 'debt', 'bond issue' or some other financial instrument that
implies being paid back. This is to give the illusion that value is being taken, not from the
holders of the dollar, but from some specific entity that lent it the money and that the debt will be
paid back in some way later" (Song 2020).

This "monetary expansion…is an unjust seizure of wealth", Song explains, because it is
essentially non-consensual: "The open and honest way for any government to pay for its services
would be to explicitly tax the citizens. People generally don't like taxes so will not consent
without a really good reason. This is how governments were held accountable in hard money
societies, as governments couldn't tax too much without a revolt" (ibid). It would be a mistake to
analyse Song's arguments as only reproducing the convictions of the nineteenth-century gold
bugs described in chapter one. Song is arguing that if the currency supply was limited and the
government had to levy a tax on citizens for every war, social program, foreign aid campaign, or
infrastructure project, citizens would have greater veto power than they do now. This power has

become unavailable to them due to the use of debt to finance much government spending and the inviolability of central bank independence.

It is true that, as for the gold bugs, Song regards the "hardness" of money like gold bullion as a check on the government's potentially corrupt inclination to spend, yet his argument does not end here. It is also an argument about the accountability of the government to its citizens—a concern that more closely resembles the grievances of the anti-monopolists who were concerned about money's capacity to degrade the integrity of the government and to empower some groups over others (Ritter 1997). A close reading reveals that Song's claims also dovetail with the arguments of Michael Hudson introduced in chapter one—specifically, Hudson's assertion that "U.S. government international finance capital['s]" shift away from "congressional funding" toward borrowing abroad enabled it to "sever itself from domestic constraints. It was beginning to emerge as a totally autonomous institution capable of effectuating policy decisions without the need to secure the support of the American people" (Hudson 1972: 163). Americans' views on foreign policy and other matters might shift, but for Bitcoiners, this hardly matters. The loss of democratic power over monetary policy and the suspension of the dollar's convertibility into gold means that there are few remaining possibilities of checking the spending funded by the Federal Reserve's "money printing" and the "super imperialism" (ibid) it sustains.

Bitcoin, in contrast to the dollar, offers a fixed-supply currency which cannot be altered except by community consent—however unlikely a prospect this might seem: "…[I]t is impossible to inflate Bitcoin beyond the supply schedule created at its inception," Song explains, "The entire community of full node operators and Bitcoin holders would have to agree to make that happen (spoiler: it won't). That is, it's hard money with a hard cap" (Song 2020). Likewise, as Bitcoin educator Andreas Antonopoulos explains, Bitcoin is debtless: "Bitcoin is fundamentally different because in Bitcoin you don't owe anyone anything and no one owes you anything. It is not a system based on debt. It is a system based on ownership of this abstract token. Absolute ownership" (Antonopoulos 2015).

Bitcoiners recognise the role of debt as "an economic and political strategy" (Roitman 2003: 212) which possesses the capacity to ensnare "the citizen, state, and the market into a network of

interconnected obligations" (Bear 2015a: 9) which are often involuntary. For them, deficit spending not only renders democracy impotent, but also threatens citizens' financial futures. "Almost all budgets are deficit spending," Song laments, "meaning that they get goods and services now in return for debt paid by future generations. Sound money creates motivation to treat the future like an investment to be made instead of a resource to be raided" (Song 2017).

What can we discern from the above analysis about Bitcoiners' conception of financial inclusion? Importantly, the aforementioned discussion has demonstrated that it encompasses not only economic opportunity but also political rights and consent. Bitcoin enables users to refuse certain relationships and obligations that the state and institutions such as banks seek to impose and offers an alternative organisation of social relationships. Yet it is worth clarifying that Bitcoin is not straightforwardly the "anarcho-libertarian *populist* reaction to finance's failures during the Global Financial Crisis," that Maurer and others assume it to be (Maurer 2023: 9, my emphasis). Bitcoiners share many of the grievances of the nineteenth-century anti-monopolists, but Bitcoin takes key design cues from their gold bug counterparts, yielding a complicated hybrid. Its design is not populist, but highly technocratic in that monetary policy is inscribed in the code so that no one can meddle with it. Bitcoin also seems clearly designed to imitate the "discipline of gold" which was afforded by the metal's natural scarcity (Ritter 1997: 84). Nonetheless, this arrangement is entirely opt-in and exists by consent only. This is a bottom-up implementation of technocracy rather than a top-down one like the gold standard that prevailed in 1896, but it is technocracy nevertheless.

Bitcoin is also a Hayekian attempt to discipline the state by breaking its monopoly on money issuance—if Bitcoiners cannot influence the state from within the system, Bitcoin provides a means of doing so from the margins. This is also evidenced in Bitcoiners' tendency to refer to Bitcoin as an "escape hatch" or means of "opting out of the system."

To this end, one Bitcoin Core developer explained that she was attracted to Bitcoin because she wanted money "to be a store of value" that could provide for her long-term future and which "empowered" her "just in case the government doesn't like me or decides to print money." "I used to think I would earn more than I would spend and, over time, it would be ok," she

explained. "Now I realise that if you're just storing USD—even if 'number is going up'"—meaning, even if the dollar's exchange rate increases against other currencies— "value is going down." "It's terrifying how much they printed last year," she added. "It's a bad way to participate in society. I want savings to take time off or to lose my job—for future things. I want to be able to accumulate—USD doesn't serve that."

For this developer, the dollar's ever-increasing supply had rendered it a useless tool for accumulating wealth. There was a disconnect between the dollar's price tag—its exchange rate—and its real value, which inflation was constantly eroding. She could no longer rely on the dollar to accumulate the generational wealth that was described at the beginning of this chapter—wealth "for future things," making the dollar a "bad way to participate in society." Muir found a similar situation amongst her middle-class Argentinian interlocutors in the aftermath of a devastating devaluation of the peso in the early 2000s when it became unpegged from the U.S. dollar. Her interlocutors bemoaned the "fictionality" of the peso's value before the valuation and described "what they considered its suddenly visible but long-standing failure to 'reflect the true worth of the country's wealth,' 'to encourage a trustworthy community,' and 'to let us build a real future'" (Muir 2015: 311).

Strikingly, the developer brought up Argentina in our interview—as, indeed, others did during my research. The country, she explained, "had a strong economy during our lifetime. Now it's one of the worst." This was a way of highlighting that the U.S. economy's relative strength was in no way a reliable indicator of its future endurance. Just as the peso's value had been a "fantasy" (ibid) before the devaluation, the illusion of the dollar's value could come crashing down at any time.

Another Bitcoin Core developer told me that childhood experiences of inflation had catalysed his interest in Bitcoin as an adult. Witnessing inflation had been formative, he explained: "My family were really into gold. I didn't understand the obsession," he said. "But I later understood that the inflation [my country] was experiencing as it was globalising made it hard for my parents to afford a modest apartment." Later in our interview, we discussed Modern Monetary Theory (MMT). "Modern Monetary Theory argues that an elastic money supply is important,

because otherwise, in a crash, liquidity goes away. That's true, but is it fair to the people who hold the wealth? I don't think so," he told me. "Debasing the wealth and giving to people who need income in times of crisis is not fair," he concluded.

Yet it was not only this logic of redistribution that was unfair, he continued. Like the other developer, he emphasised that a currency with an elastic supply also had an "elastic value" which undermines knowledge of the economy and inhibits the creation of generational wealth. "If you have an elastic money base and an elastic value base, then what you're really doing is playing this funny game [in which] people have to be constantly thinking about what money is and what it means to them. If you have an inelastic money base and value base, people don't have to do that."

Elasticity made money and value elusive, unknowable. Prices, denominated in a particular currency, are supposed to be a form of information, "something we measure other value in," he explained. Elasticity rendered them useless. This was not a problem about the uncertainty of a crisis-ridden economy, but rather the uncertainty of "the knowledge we have about it" (Gell 1992: 57). In other words, elasticity makes "pinpointing stable sources of wealth" (Roitman 2005: 77) difficult. This has consequences for the accumulation of wealth for the future—elastic money isn't conducive to long-term saving. "People will eventually demand that their salaries are denominated in harder currency," he predicted. "Athletes," for example, "need not to have a debased salary since they have a short time for earning [income]—they need money to last." Athletes, he implied, are particularly exposed to the vagaries of elasticity—especially inflation— because they tend to accrue significant earnings over a short period of time. They must save for the future, but the elasticity of fiat money means that the real future value of their savings will be uncertain. Inflation, as a covert and illegitimate means of redistribution in elastic money systems, threatened their capacity to build generational wealth.

In discussions pertaining to financial inclusion, Bitcoiners made it clear that their concerns about the impact of U.S. monetary policy extended beyond themselves and the domestic economy to people abroad. "When the government prints money, I get value as an American citizen, but other people in the world who hold USD don't benefit," one Bitcoin developer told me. She went

on to express concerns about the unravelling of the dollar's reserve currency status: "If money printing in the U.S. went poorly, there would be a huge shift in the whole world. There would be wars, and famines—human pain. That could be what leads to the adoption of Bitcoin. I don't want that, but it's important to have [Bitcoin as an alternative]." Other Bitcoiners have lamented the dollar's role in the U.S.'s expansionist aims, arguing that "dollar privilege or dollar hegemony is propped up through its position in international trade" which forces foreign governments to maintain dollar reserves; inflation, meanwhile, means that these dollar holders are essentially taxed without representation (Song 2020). The attention to these issues indicates that Bitcoiners understand that U.S. monetary policy sanctions particular logics of authority and redistribution not only at home, but also abroad. Their vision of the financially excluded, therefore, is broad and even tinged with anti-imperialist sentiment.

In sum, the contrast between Bitcoin and the U.S. dollar could hardly be starker for Bitcoiners. Monetary expansion is seen as an underhanded mechanism of redistribution, imperialism, and devaluation grounded in illegitimate state authority which has been secured via unthinkable amounts of borrowing. This borrowing, in turn, has degraded citizens' ability to affect government spending through normal political processes and their knowledge of the economy. What is lacking so badly in U.S. monetary policy, then, is both consent and consensus. The Bitcoin community's ideal of financial inclusion rests on a rejection of the social relationships and logics of redistribution and authority that form the basis of U.S. monetary policy. Its answer to this is a decentralised system which replaces central bank monetary policy with code that can be altered with community consensus.

The Ethereum community

While Bitcoiners' vision of financial inclusion has been shaped significantly by monetary policy, the Ethereum community's vision has been greatly shaped by their encounters with regulators. These encounters intensified during the initial coin offering (ICO) era from 2017 to 2018. In chapter two, I described ICOs as a novel mechanism for distributing fungible tokens that crypto people saw as combining elements of crowdfunding and initial public offerings (IPOs). Tokens sold through ICOs were marketed as serving a function in the product or network for which they

were launched, rather than constituting equity in the project. Many ICOs turned out to be scams, but some projects did come to fruition. Ultimately, however, the U.S. Securities and Exchange Commission (SEC) sued many ICO projects, alleging the token offerings were unregistered, and thus illegal, securities offerings.

Crypto people saw ICOs not just as a means of distributing tokens, however, but as a way of enabling wider participation in investing—financial inclusion, even. This put them at odds with the SEC, which was committed to upholding securities laws that operate with an explicit policy of financial exclusion via the accredited investor standard. The standard prevents most Americans from investing in private securities. In some cases, the Commission forced projects to shut down entirely and refund investors, while others escaped with hefty fines. By the time I started fieldwork in 2019, the SEC had opened so many investigations into ICO projects that news of new lawsuits elicited little more than exasperated eye rolling. For instance, at one gathering I hosted, one attendee told us that he had freelanced for a crypto company that had been freshly indicted by the SEC in the weeks before the gathering. Learning this and sensing his slight apprehension at sharing this news, another attendee quipped: "If you're not being investigated by the SEC, *are you even in crypto?*"

The aggressive posture of securities regulators did little to dampen enthusiasm in the Ethereum community for creating technology that sought to widen participation in investing. If Bitcoiners envision financial inclusion through the lens of money, then the Ethereum community imagines it through the lens of speculation. Ethereum's decentralised finance (DeFi) protocols, introduced in chapter two, particularly advanced a vision of financial inclusion that emphasised the need for money to be "productive" in order for it to grow into generational wealth. These protocols, which aspired to be decentralised versions of traditional financial services, also sought to negate the policies of exclusion with which their traditional counterparts operate. These included not only the accredited investor standard but also policies which excluded certain would-be market participants from accessing services on the basis of their geographical location, nationality, or other characteristics.

Automated market makers (AMMs) represent one such example. AMMs are key to much of the speculation that takes place in DeFi because their creation ushered in a significant expansion of the number of assets that crypto investors could easily buy and trade. Prior to the development of AMMs, investors executed trades either via peer-to-peer arrangements, which usually involved counterparty risk, or through centralised exchanges who limit the crypto assets they list based on best-guesses about which assets the SEC might deem to be securities. Obtaining tokens that were thinly traded often proved difficult. As bridges between crypto and fiat money, centralised exchanges are also supposed to carry out Know Your Customer checks on customers and participate in the policies of exclusion characteristic of traditional finance, though they have done so to varying degrees.

AMMs facilitate token-to-token exchanges via liquidity pools and do not deal in fiat money. On an infrastructural level, developers emphasise that AMMs are simply a set of self-executing smart contracts, which no one can "turn off." If a company has developed an AMM, it aims only to accept liability for the interface it provides to facilitate easy interaction with the smart contracts, rather than for the smart contracts themselves. Users with the relevant technical knowledge are able to interact with the smart contracts without the interface; therefore, if the company restricts its use or eliminates it entirely, this does not mean that the smart contracts themselves (and thus the AMM) are restricted or eliminated. As a result of these characteristics, AMMs do not require users to provide ID or complete anti-money laundering and terrorist financing checks (known as Know Your Customer (KYC) procedures in the United States). Anyone can start a liquidity pool for a token and anyone can swap tokens. In short, AMMs seek to leverage the non-human quality of code to prevent regulators from imposing policies of exclusion on them. This is a characteristic example of the kind of legal hacking that open source software developers have long engaged in and reflects their conviction that "the route to achieving change is through direct experiment with the system of law and administration" (Kelty 2008: 182).

As AMMs reshaped the way tokens were bought and sold, a host of other DeFi protocols emerged in a quest to make those tokens productive. Among them were decentralised money markets, liquidity aggregators, synthetic assets, lending protocols, and new stablecoins. "Yield

farming" protocols arose to help investors move their tokens within the complex ecosystem of DeFi protocols to chase the best yield. New projects rapidly emerged, quickly securing billions of dollars worth of investors' crypto assets, as stunning profits (and losses) were realised from investment in projects with curious names like Yam Finance, Based Money, SushiSwap, and Spaghetti Money.

Investors announced on Twitter that they had "aped in" to projects—meaning they had purchased tokens they knew little about, motivated largely by the fear of missing out (FOMO). Large sums of money were lost to hacks, bugs, and "rug pulls." Nonetheless, degenerates or "degens," as DeFi traders called themselves, were undeterred. They knew their investments were risky, and carried on anyway—spurning the stereotype of the imperilled retail investor. In an era of historically low interest rates and limited access to risk, the Ethereum community had quickly carved out a means of securing returns on their tokens—sometimes, spectacular ones.

Booming participation in DeFi markets in mid-2020 led the crypto community to dub the period "DeFi Summer." It was during this period of intense speculation that the community also experimented with the "fair launches" and ideas of ownership described in chapter two. Fair launches not only reflected ideas of how property ought to be distributed in crypto, but, with their undertones of Rawlsian justice, also spoke to broader ideas about inequality and how the economy should operate.

Specifically, in insisting that property ought to be allocated as if Rawls original position obtained, fair launches represent an attempt to suspend not only the hierarchy between "whales" and smaller holders of crypto—but also the hierarchies of gender, race, and class which mark the logics of distribution in the American economy. These, as we saw with redlining and the long-time limits on women's access to credit, have long been endemic to the American financial system. Today, these hierarchies have taken on a different form—in programs like affirmative action, for example—but they persist nonetheless, even if the way they are framed may sometimes be considered progressive.

By emphasising fairness—equality of opportunity, rather than equality of outcome—fair launches exemplify that, for crypto people, financial inclusion—and crypto itself—is not about resolving inequality. Rather, it is about eliminating barriers to access, undermining concentrations of power, and refusing identity-based distributional privileges. For crypto people, the rejection of these hierarchies is a key part of their attempt to build a moral community around the principles of decentralisation, openness, and permissionless-ness, via blockchain-based experiments with social relations.

Like fair launches, ideas of community also spoke to convictions about the principles that ought to govern the economy—and the consequences of the distributional logics which currently govern it. As one interlocutor explained to me, community-owned protocols (facilitated via the ownership of tokens) were connected to economic empowerment. "Tokens are the next enabler of continual empowerment of the individual," he claimed, and as a result, he predicted, "individuals will take over the practice of investing" from institutional investors. His claims echoed those of other members of the Ethereum community that I had met; with crypto, "anyone can be an investor," they said repeatedly. Ownership, my interlocutor told me, creates wealth—and people our age had been shut out of conventional forms of ownership. "Our generation has been rumoured to be financially helpless and has had declining prospects," he said. "No wonder that these kinds of narratives around individual empowerment and wealth building are resonating with our generation—because the last twenty years has been the complete opposite. We've rented things instead of owning them, and we haven't been able to build wealth."

In an interview, another interlocutor made similar claims. "In previous generations, the thing you work towards is buying a house," he told me. "Now it's difficult, so our generation is looking to own assets elsewhere—so we put our money towards investment in things like tokens. There has been a displacement of property to other asset classes like crypto." Both interlocutors expressed a desire to build wealth and the difficulty of doing so during a time in which conventional markers of affluence, such as home ownership, have become prohibitively expensive for most. Yet it is notable that my interlocutors created a link between the ownership of a home and the ownership of crypto assets—both were seen as the means through which generational wealth

could be built. During my fieldwork, I also saw these comparisons play out in visual media, such as memes.

Figure 3 A meme comparing the prospects of two generations (Unknown 2022a)

Figure 3, for example, compares a man with his parents at the same age. The father is represented by a "chad" figure—a common character in memes that represents an "alpha" male with attractive, masculine features—while the mother is represented by a "trad girl," a blonde character in a blue dress who is associated with conservatism (Know Your Meme 2020). The house is a stereotypical American suburban home, large and inclusive of a prominent garage. Meanwhile, the main character is represented by a fatigued and frazzled-looking Wojak character whose haggard appearance contrasts sharply with the freshness of his parents. The text adjacent to him describes the chaos of his crypto investing, which involves multiple blockchains, numerous crypto wallets and computers, and a dizzying number of Discord channels. "My taxes are 317 page[s] long," it reads, gesturing at the convoluted way that tax law in the U.S. has been applied to crypto assets.

The meme is a commentary on financial opportunity—or lack thereof—contrasting the ease with which "boomers" have been able to build wealth with the struggles of younger generations who must resort to new assets like crypto and far more complex strategies to achieve the trappings of their parents' lives. Faced with downward mobility, the absence of lucrative investing opportunities in the public markets, and priced out of home ownership, the Ethereum community has demonstrated a keen awareness that speculation underlies contemporary mechanisms of accumulation. They have, therefore, laboured to seize the means of speculation themselves.

III. Crypto as unsanctioned wealth

This seizure of the means of speculation has set up a clash with regulators who view the Ethereum community's activities as "unsanctioned wealth"—that is "wealth that contrasts [with] representations of ideal economic practice and legitimate modes of redistribution" (Roitman 2005: 75) and which "involves accumulation that is not authorised by the prevailing socioeconomic hierarchy, or both official and unofficial instances of regulation" (ibid: 79).

In the last five years, the SEC has become the most notorious regulator in the crypto community. Though the agency's claim to jurisdiction over crypto remains unsettled, it has sought to suppress crypto's unsanctioned wealth by asserting that almost all crypto assets, apart from Bitcoin, are unregistered securities. Yet, the crypto community has long complained that the Commission has never issued guidance on how existing laws and regulations apply to crypto, nor has it created crypto-specific rules. Instead, the SEC has merely pointed crypto projects toward a pivotal case in securities law, *SEC v. W.J. Howey Co*, which was litigated in 1946 and pertained to the development of citrus groves.

The case crucially produced the Howey Test—four criteria (*SEC v. W.J. Howey Co.* 1946) that establish whether a financial instrument is an investment contract under the Securities Act of 1933—which the SEC has repeatedly referenced in enforcement actions that assert that crypto assets are securities. With little else to guide them, crypto projects have been forced to scrape what they can from the lawsuits filed by the SEC, as well as from the public remarks made by its commissioners[18].

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[18] These remarks are usually accompanied by disclaimers stating that they do not necessarily reflect the views of the SEC.
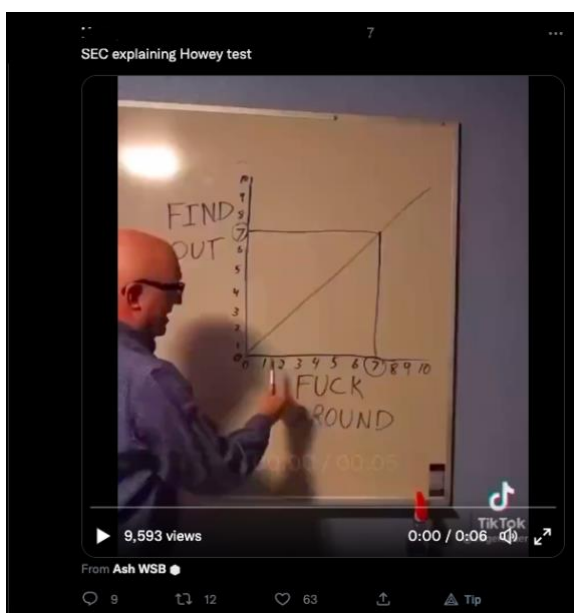
Figure 4 A tweet/meme parodying SEC regulation (HaileyLennonBTC 2022)

This has been of little help, however. Making light of this, the Ethereum community circulated Figure 4, a meme which implies that the SEC's decision to regulate by enforcement has forced the community to adopt a "fuck around and find out" approach in order to discern which kinds of crypto projects are permissible under current laws. Nevertheless, this approach tends to result in anxious, protracted periods of guessing and waiting as the agency sometimes waits years before taking action against projects.

For his part, SEC Chairman Gensler has repeatedly argued that the SEC has been clear on crypto regulation and has encouraged projects to engage with the SEC. Projects that have pursued this path, however, have found the SEC to be less congenial behind closed doors. Crypto exchange Coinbase, for example, reported that it engaged with the SEC about a lending program it sought to launch. This included meeting with the SEC; answering its questions in writing and in person; providing documents and written responses after the Commission launched a formal investigation into the program; and providing an employee to act as a "corporate witness" to testify about the program. The SEC responded with a demand for the "name and contact information of every single person on our Lend waiting list," Coinbase said in a blog post, and later "told us they consider Lend to involve a security, but wouldn't say how or why they'd

reached that conclusion" (Grewal 2021). With the SEC threatening to sue if Coinbase launched the lending program, they opted to kill it instead—to the grave disappointment of many crypto people.

For other projects, engaging with the SEC is impractical. If crypto projects wished to offer their products to retail investors, they would be required to submit a registration statement to the SEC which included disclosures regarding their "operations, financial condition, results of operations, risk factors, and management" as well as "audited financial statements" (SEC n.d.) and wait for the SEC to approve it. But for many crypto projects, these disclosures are often not possible. While traditional companies with clear management structures exist in crypto—such as Coinbase—many crypto projects do not follow this model.

Instead, projects consist of open-source code, created and maintained by often anonymous developers who come and go over time. Decisions regarding changes to crypto projects are usually made by one of two means. In the first, "rough consensus," the community discusses changes to the project at conferences and meetups, and in blog posts, op-eds, and forums. Developers create "improvement proposals"—code, which users and miners can accept or reject by updating their software (or not).

The second is a mechanism we encountered in chapter two: decisions are made by a group of people who hold a governance token that entitles them to vote. In many cases, this type of token was initially not *issued*, but earned by people in exchange for doing certain things, such as contributing their crypto assets as liquidity to an automated market maker (Levine 2022). These tokens often eventually make their way to decentralised exchanges which no one controls, where they will be traded. Ultimately, centralised exchanges will also list the token. Assigning responsibility for the project—or its registration with the SEC—to any of these individuals or entities is dubious at best.

The research presented in this chapter also importantly calls into question the validity of securities regulations that centre on disclosure. When I was in the field, it was clear that the people I met understood the risks associated with investing in crypto and that they operated with

a different culture of accountability than that embodied by the SEC and its regulations. They knew that some projects would inevitably flop or turn out to be scams, yet, they invested anyway. Indeed, they often invested *because* of the risk—something they had little access to in the regulated economy—because it was the only way to obtain the kinds of spectacular returns required to build generational wealth. This is not to say that they did not find scams to be problematic—indeed crypto people devote no small amount of energy to outing and ostracising scammers, sharing tips on how to avoid scams or theft, and counselling newcomers on the ins and outs of blockchain technology. Instituting investor protections via disclosure policies, however, would have little effect—the investors do not want to be "protected".

Regulators, however, have taken little notice of the broader context in which people are making their investments. Gensler has attempted to mount a public defence of the SEC to counter the crypto community's condemnation of the agency for failing to regulate through rulemaking. In 2021, he was quoted in the *Financial Times* as saying, "Right now…we just don't have enough investor protection [in crypto] …Frankly, at this time, it's more like the Wild West…This asset class is rife with fraud, scams and abuse in certain applications" (Silverman 2021). This characterisation is reminiscent of what Roitman found in Cameroon. Those who participate in the creation of unsanctioned wealth, she explains, were "typically portrayed as marginal elements" and were "often described as 'predatory'" people who "are said to destabilise the market"— "ignoring customary economic practices and resisting long-standing modalities for ensuring authority relations and social redistribution" (Roitman 2005:215). Gensler mirrors these claims with his illusions to the lawless American West and his claims that investors require protection from the deceptive practices of crypto—protection, of course, that can only be provided via submission to the SEC's authority and expertise.

In an article on mobile money regulation, Maurer suggests that regulation could amount to a type of ethnography—that we should "read regulations as narrative descriptions of social life" which illuminate "actual social practices of technology, of phones as well as currency objects, and thus provide a window into user experiences of new mobile and money technologies" (Maurer 2012: 312). "To the extent that regulations address risks and seek to reduce those risks or mitigate harm," he writes, "regulations provide a document of people's actions" (ibid: 313). This chapter

calls this view into question—there is little in the SEC's regulatory activities in crypto that suggests an ethnographic understanding of those being regulated. Indeed, in one recent proceeding against a crypto company, a judge sanctioned the SEC for "deliberately perpetuating falsehoods" in the case (Reuters 2024).

To regard regulations as "narrative descriptions of social life" (ibid:312) makes it all too easy to ignore the moral and "social evaluations" (Bear 2020:2) inherent in these narratives. Likewise, this perspective omits consideration of the distributional consequences of regulation and the ways that regulators are implicated in debates about economic governance which have issues of legitimacy, expertise, and democratic representation at their core. Crypto people know that securities regulations have far-reaching consequences—that Gensler's refusal to engage in rulemaking for crypto is ultimately an effort to erase "the space of economic mobility" that they have created (Roitman 2003: 215).

"Have fun staying poor!"

The SEC is not alone in its portrayal of crypto as unsanctioned wealth. In a 2021 congressional hearing, Senator Elizabeth Warren offered a similarly negative appraisal: "instead of leaving our financial system at the whims of giant banks, crypto puts the system at the whims of some shadowy, faceless group of super-coders and miners—which doesn't sound better to me." Warren's characterisation of miners and coders, quickly condensed to the more headline-ready "shadowy super-coders" began to rapidly circulate on crypto Twitter. Mugs, t-shirts, and other merchandise proudly bearing the "shadowy super-coder" moniker hit the market shortly thereafter. Though Warren's remarks were met with humour from the crypto community, some crypto friends were also disappointed that she failed to see crypto as a technology of financial inclusion. As a consumer advocate whose research led to significant reforms of the financial system, Warren's villainisation of crypto was felt bitterly by those who saw her as a potential ally. Warren's consumer protection advocacy, however, was firmly rooted in the paternalism that crypto people vigorously protest, and she remains a staunch critic of the community.

The notion that crypto is unsanctioned wealth has also seeped into popular culture, where crypto people are stigmatised through a variety of derisive labels, including accusations that they are gamblers, fraudsters, tax evaders, money launderers, and crypto bros. Though crypto is often criticised for counting comparatively few women amongst its ranks, little attention has been devoted to analysing the gendered stereotyping of crypto people as "crypto bros." These stereotypes denigrate young men for participating in activities which yield unsanctioned wealth in a way that also resembles Roitman's Cameroon, where young men were stigmatised for having "refuted the structure of exclusion and difference" (Roitman 2005:95). For example, one article declares that "crypto bros embody a very specific strain of toxic masculinity" and presents several "types" of crypto bros, including a raw meat-eating, anti-vaccine type and another— "more of a gremlin, festering in his parents' basement in an unwashed, crunchy hoodie" (Smith 2022). In this article, crypto's break with economic orthodoxy is elaborated into a variety of other dangerous departures from the mainstream that pose a threat to socially sanctioned ways of life.

Academics have also taken up these tropes in their work. For example, in an article titled "Dark Personalities and Bitcoin: The influence of the Dark Tetrad on cryptocurrency attitude and buying intention," Martin et al. posited that "price volatility…and autonomy from government oversight make crypto attractive to that subset of crypto buyers who are prone to gambling and are suspicious of government" and sought to "examine effects of the Dark Tetrad" of personality traits—Machiavellianism, sadism, narcissism, and psychopathy—on decision making (2022: 1). They concluded that "narcissists like crypto which is based on positivity. Psychopaths and sadists fear missing out on investing rewards but lack positivity about their prospects. Machiavellians want to buy crypto because of their beliefs about politicians and government agencies" (ibid: 5).

Like regulators' assessments of crypto, these critiques contain moral and "social evaluations" (Bear 2020: 2) that reinforce the hierarchies of gender, race, and class which have been woven into the American financial system. The consequence of the moralising quality of these evaluations is that it is easier to overlook crypto's critiques of economic governance and its claims of financial inclusion. In response, crypto people have conjured up a moralising rebuke of

their own. During my time in the field, "Have fun staying poor," or simply "HFSP," was used as a cutting reply to those who criticised crypto online. Written in all caps in replies to tweets from regulators, figures from traditional finance, and many others, and printed on hats in a way that resembled the bank HSBC's logo, "have fun staying poor" was both an insult and an irreverent expression of crypto people's conviction that crypto will yield generational wealth (Kuhn 2021). Though some crypto people found the phrase distasteful, few disagreed that the mainstream's closed-mindedness to crypto would cost them in the end.

IV.   Conclusion

In the video described at the start of this chapter, Chairman Gensler sought to impart investing advice to college students. In order to save for retirement, the video implied, college students must grow their money through sound choices, prudent investing, and the magic of interest. The crypto community took exception to this advice and pilloried Gensler for what, to them, was nothing short of deception. The path to accumulating wealth that he described couldn't have been more incongruous with their experience.

This chapter has examined the conditions which precipitated my interlocutors' turn to crypto as a technology of financial inclusion that also provides a means of accumulating "generational wealth"—wealth that contributes to social reproduction, wealth that does more than furnishing a basic means of subsistence. Given its mainstream reputation for imperilling retail investors by exposing them to risk or scams, it would be easy to dismiss crypto as a mere effect of financialisation and to compare its speculation and aspirations to something like subprime lending, which—though it is a process of inclusion insofar as it incorporates the poor as homeowners— "traffics in borrowers' class ambitions and dreams of upward mobility" (Schuster & Kar 2021: 390).

However, this chapter has sought to advance a more nuanced view of crypto which reflects upon the precarious economic conditions which lead people to invest in what are perceived as "risky assets" in the first place. To this end, I have argued that the American financial system and its institutions have long operated with policies of financial exclusion which have contributed to the

destabilisation of the middle-class and younger generations, who face declining prospects and the realities of downward mobility. I have offered an ethnographic reinterpretation of financial inclusion which captures my interlocutors' attempts to remake their financial circumstances through a reorganisation of social relationships, which is facilitated by the blockchain. This relational work, I have suggested, is about refusing the extractive relationships of the traditional economy in favour of experiments which emphasise fairness and have undertones of Rawlsian justice.

Additionally, I outlined the related but distinctive visions of financial inclusion that have emerged from the Bitcoin and Ethereum communities. Bitcoiners' account of financial inclusion is particularly attuned to issues of monetary policy, illegitimate mechanisms of redistribution, and the dollar's role in imperialism. It probes the fictitious, uncertain nature of money's value and emphasises political rights, consent, and consensus. The Ethereum community, meanwhile, has sought to seize the means of speculation. Their account of financial inclusion has been greatly shaped by their encounters with securities regulators who are at odds with their aspirations to expand access to investing and opportunities for speculation.

This chapter also engaged with the remarks of regulators and critics, whose narratives about crypto are laden with moral judgements. The resulting clashes were more than a battle of words, however. I argued that regulators and critics view crypto as unsanctioned wealth. At the heart of this chapter, then, is an intergenerational conflict over which logics of redistribution, accumulation, and authority ought to govern the economy. This conflict calls into question regulators' assumptions about the necessity of protecting investors—especially the efficacy of disclosure policies and the necessity of the policy of exclusion enforced by the accredited investor standard. For their part, crypto people are largely undeterred by the stigmatisation that has come with the creation of unsanctioned wealth. This is captured in one of their most irreverent ripostes to critics: "have fun staying poor."

CHAPTER FOUR:

Magic Internet Money: Tricks and Techniques of Value and Speculation

Just over four years after the first Bitcoin block was mined, Theymos, moderator of Reddit[19] community r/bitcoin, was querying its members. They had secured enough funds to purchase Reddit ads to help attract users to both the subreddit and Bitcoin, he explained. But what should they say? "A lot of the suggestions I've seen so far aren't very likely to catch someone's attention, IMO," he wrote. "I doubt that anyone would click on an ad with 'Bitcoin: Monetary Freedom' as the text, for example." He rattled off a few "decent suggestions" that members had made: "Bitcoin—The Internet's Currency;" "Sending money is now as easy as sending a text message;" "Bitcoin—free your money;" and "Be your own bank with Bitcoin." "But," he added, "I still feel like very few Reddit users would click those ads. Any better ideas?" (theymos 2013).

While members debated the merits of different catchphrases, a redditor called mavensbot posted an imgur link to his contribution (Figure 5), adding, "Hope it is adequate" (ibid). Roughly executed in Microsoft Paint, the image is perhaps best described as Lady Liberty meets *Lord of the Rings,* rendered in an aesthetic of early web nostalgia. It displays a wizard with a long grey beard, attired in a blue cloak and pointed hat. In one hand, he holds a flame high above his shoulder. In the other, a staff with a Bitcoin at its top. "r/bitcoin" is scrawled above him, while mavensbot's proposed slogan, "magic internet money," fills the space under the wizard's staff. "Join us" beckons from his feet.

Figure 5 The Magic Internet Money Wizard created as an
ad for r/bitcoin (mavensbot 2013)

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[19] Reddit is an internet forum that hosts a wide range of online communities called subreddits, which are devoted to particular topics. r/bitcoin is one of the Reddit communities that is devoted to the discussion of Bitcoin.

mavensbot's image was ultimately selected to run as the subreddit's ad and proved more than "adequate" in the end, receiving a wildly enthusiastic response. "I thought Leonardo da Vinci was dead," one redditor joked in a comment on the ad (r/ads 2013). Others expressed surprise and delight that the image had succeeded in piquing their interest in Bitcoin. Ten years later, "magic internet money" remains a favourite meme within the crypto community and the thread from which it emerged also arguably has lasting relevance.

r/bitcoin is hardly the first, nor the last, group to struggle to articulate Bitcoin's appeal. Yet, their attempts should be read as more than mere marketing statements. At its core, r/bitcoin's discussion was about the *value* of Bitcoin: the members' thread represents one instance of the "ongoing collective negotiation of what things are worth or mean within a community" (Haiven 2011: 97). The thread also exemplifies the form that claims about value tend to take in the crypto community, with each suggestion representing what my interlocutors would call a "narrative."

When I asked my interlocutors to help me understand why cryptocurrencies are valuable, they often suggested that there was a link between narratives about value and value itself. Value, they insisted, is really just a story we tell ourselves. When enough people believe the story of why something is valuable, it simply becomes valuable. Bitcoin, one Bitcoiner told me, "has intrinsic value because people believe it does. Same with fiat." At the heart of this account of value, I argue, is the conviction that value is a function of collective belief. To take this one step further, if value is about belief, then it is ultimately also about persuasion—or perhaps, politics—"that domain of human action and experience where reality is whatever one can convince others to accept" (Graeber 2012: 29).

In this chapter I examine the ways crypto people invoke belief, politics and even magic—as in magic internet money—as a means of explaining the value of Bitcoin or other cryptocurrencies. I argue that these are all ways of talking about the "social wizardry" that makes people "willing to take worthless pieces of paper or accounting entries in exchange for goods and services" (Carruthers and Babb 1996:1558). Put another way, these are means of highlighting the socially constructed nature of money.

The assertion that value is a function of collective belief was one I heard repeatedly throughout my fieldwork, yet it contrasts with the perspective offered by the existing literature on the value of cryptocurrencies which largely focuses on Bitcoin. Previous scholars have claimed that Bitcoiners subscribe to the commodity theory of money—that they understand its value as being derived from "its material properties as a medium of exchange"—specifically from the way it imitates some features of gold (Dodd 2018: 42). This claim clashes with the accounts of my interlocutors, however, and overlooks the important ways that Bitcoiners—and other crypto people—regard money as "originally a relation between persons in society" (Hart 1986: 638). Crypto people's philosophy of money, I contend, has social constructionism at its heart.

This chapter starts by reviewing the existing literature on Bitcoin's philosophy of money. It re-examines claims that Bitcoiners subscribe to the theory of digital metallism (Maurer et al. 2013) and introduces the claim that Bitcoiners and other crypto people are social constructionists who believe they can shape the value of crypto assets through discourse—in other words, they embrace the principle of performativity (Callon 2007). I draw on critiques of performativity and recent work on speculation to argue that this embrace of performativity has corresponded with an escalation of speculative activity in the economy more generally—a time in which "performative gestures came to be seen not just as the basis of the economy but also as the central principle of politics and even our understanding of the nature of social life" (Graeber 2012: 28). I go on to argue that crypto people see money as something that confers power and that, for this reason, it is implicated in the intergenerational struggles described in chapter three. I explore this theme through comparative examples from anthropological work on money in Melanesia, where money is similarly associated with agency.

This chapter also posits that crypto people's social constructionism is key to their strategies of accumulation. In crypto, social constructionism acts as a technology of imagination that seeks to uncover the hidden structures and agencies that shape society with the aim of channelling them for accumulative ends (Bear 2015b). Likewise, following Bear, I draw connections between crypto people's speculative labour and anthropological studies of magic. In this light, "magic internet money" takes on new significance and I argue that this meme points to the mystifying conditions under which money becomes naturalised as a social institution. The "tricks" that serve

to naturalise money, are for crypto people the source of money's power. Drawing on recent work on crypto scams, however, I argue that crypto people see these tricks as "techniques" (Taussig 2016) that can be imitated and leveraged to accumulative ends.

I.　　　Philosophies of money, technologies of imagination

Digital gold? Bitcoin and commodity theories of money

In their 2013 article, Maurer et al. argue that though Bitcoin is a digital currency, its "discursive politics" emphasise materiality (2013: 262). They highlight a variety of examples: Bitcoin's coins are mined rather than minted, its miners use rigs, its total supply is limited, and the creation of new coins is algorithmically regulated in a way that is suggestive of the slow and ever-decreasing trickle of gold from mine to market (ibid). Bitcoiners, they contend, see Bitcoin's value as the result of its "digital metallism"—the way that it mimics gold-based media of exchange through its fixed supply (ibid). Other scholars took up this analysis to condemn Bitcoin as incorporating "the most regressive elements of historical money, those tied to ecological devastation, colonial subjugation, and primitive accumulation" (Zimmer 2017: 330). Likewise, arguments that Bitcoiners subscribe to digital metallism have been used to bolster claims that "the ideology behind Bitcoin is essentially that it removes politics from money altogether" (Dodd 2018: 37). Just as gold standard advocates sought to displace the state as the manager of the monetary system in favour of the market, the argument goes, Bitcoiners have displaced the state and banks in favour of code (ibid).

Writing five years after Maurer et al., however, Nigel Dodd detected some "inconsistencies" in Bitcoiners' expression of the digital metallist philosophy. "When I asked a Bitcoin trader about the theory of money underlying his understanding of cryptocurrency," he recounts in an article, "he compared Bitcoin to gold; indeed, he suggested that the currency was *superior* to gold because its supply could be absolutely fixed (at 21 million coins) by the underlying software" (2018: 42). Dodd went on to question his interlocutor about the possibility that the supply cap could be removed—what then? "When I put this point to the trader in a question," Dodd writes, "he suggested that the *belief* that the total number of Bitcoins would never exceed 21 million acts

like a socially necessary fiction that holds the network together" (ibid:43). "In other words," Dodd concludes, "the trader I was speaking to appears to behave like a gold bug while thinking like a social constructionist. He saw no contradiction in his position" (ibid:43).

Dodd's account echoes that of my own interlocutors and raises a key question. Is it scarcity or a *belief* in scarcity that gives Bitcoin value for its adherents? As Dodd indicates, the former position is suggestive of metallism while the latter is suggestive of social constructionism. Dodd does not seem to have dwelt on this curious distinction long enough to analyse it thoroughly, however. Rather, he explains away this anomaly by arguing that Bitcoin "is a techno-utopia that must be embedded within a set of social practices that are sustained by strong beliefs" (ibid:43). Yet, there does seem to be an important distinction between scarcity, on the one hand, and a belief in scarcity, on the other, which I'd like to linger on. The scarcity of any given object would seemingly be a quality that is empirically determined by its relationship to other objects. Gold is scarce relative to other types of metal, for example. Meanwhile, a *belief* in scarcity has nothing to do with the actual relationship between two categories of metal—it is simply a matter of being *convinced* that scarcity obtains, and in the case of Bitcoin, that it will continue to obtain.

The idea that belief maintains the fixity of Bitcoin's supply cap somewhat resembles Callon's notion of performativity, the idea that various types of discourse—"scientific theories, models, and statements" and so on—are "actively engaged in the constitution of the reality that they describe" (2007: 318). That is to say, though Dodd's interlocutor knew there was a chance that Bitcoin's supply cap could be changed, his belief—and that of other Bitcoiners—that it will *not* be changed has the effect of actualising the lack of change.

Performativity is not traditionally the terrain of commodity money theorists, however, but that of advocates of fiat money. Consider, for example, the monetary debates featured in chapter one between the conservative bullionists or gold bugs and the reform-minded Greenbackers that took place during the post-bellum period in nineteenth-century America. This debate could be framed in terms of performativity. On one side were the Greenbackers who believed that certain materials—be they paper or metal—became money via "an act of language" (Callon 2007: 317)—that is, via the government's pronouncement that the material in question was legal tender

(Carruthers and Babb 1996). On the other side were the bullionists who resisted the premise of performativity and argued that language itself could not imbue money with value.

Consider Ritter's explanation of the conservative position, for example: "According to the conservatives, there were two types of money—real money based on intrinsic value, and fiat money based on *government declaration*" (1997: 86, my emphasis). The conservatives attacked the Greenbackers' embrace of performativity through a variety of famous cartoons. One, created by Thomas Nast and titled "Milk-Tickets for Babies, in Place of Milk," shows a withering child being handed a piece of paper that reads "this is milk by act of con[gress]" (Foster 1999: 215). A declaration that a ticket was milk, did not bring milk into being, Nash quipped with his cartoon. And just as a milk ticket was not milk, a greenback was not money, but rather, to use Foster's words, a "substanceless symbol" (ibid: 214). Hence, value, the conservatives insisted, was not something that could be performed or socially constructed—not "legislated or artificial; it was intrinsic and natural" (Carruthers and Babb 1996: 1567). The Greenbackers, however, were unconvinced. Some—following Edward Kellogg, whose ideas provided the basis for greenbackism—did not dispute that commodities like gold were intrinsically valuable, but argued that intrinsic value was not a necessary quality of money (ibid). Money, according to their view, "needs only to have legal value, conferred by the government" (ibid: 1570).

If gold and greenbacks represent opposite ends of a political continuum of money which has "substance" on one side and "inscription" on the other (Shell 1999: 44), then Bitcoin—as unbacked but scarce money, based on a digital ledger which is itself the product of written code—perhaps sits somewhere in the middle. My reason for rehashing these bits of monetary history is to solidify a key point that I have been working toward since the beginning of this chapter. That is, if we are to take my interlocutors— as well as Dodd's—seriously when they assert that belief confers value, then we have reason to doubt that digital metallism captures the full complexity of the monetary politics of Bitcoin. Likewise, consider the role that Bitcoiners assign to belief. If belief is central, assertions that Bitcoin is about removing politics from money, as Dodd claims, are dubious. I agree with Dodd, Maurer et al., and others that Bitcoin mimics certain characteristics of gold-based currencies—such as their relative scarcity and delimited issuance—with the aim of eliminating a centralised authority that could manipulate the

currency. However, I do not agree that this amounts to removing politics from money entirely, nor do I see this as sufficient evidence that Bitcoiners truly subscribe to metallist theories of value as defined by them.

In short, a revision of this theory is in order. In my view, the primary flaw of digital metallism is it misleadingly suggests that Bitcoiners act as if there is "an opposition between commodity and token theories of money" (Hart 1986:645). In fact, I have tried to demonstrate that Bitcoiners act with both in mind when they acknowledge that belief prevents changes to Bitcoin's fixed supply and when they argue that belief confers value. We might satisfactorily amend digital metallism to reflect this if we return to the sources of the terminology that Maurer et al. use. For instance, Maurer et al. speak of Bitcoin's "practical materialism" to reference its allusions to mining among other things (2013: 262). This term is, in turn, derived from Ingham's use of "practical metallism" (2004: 212) which, Maurer et al. suggest, refers to the way that "the discursive work of commodity money theories" emphasises "materiality" over "credit relations" (2013: 262). Likewise, they alter the term further to create digital metallism, which they say "parallels very old discourses about the 'soundness' of 'commodity money'—that is, currency deriving its value from the material out of which it is made" (ibid: 269). Yet Ingham's "practical metallism" is itself borrowed from Schumpeter, who defines it as "the principle that the monetary unit 'should' be kept firmly linked to, and freely interchangeable with, a given quantity of some commodity" (1954: 288).

Schumpeter's practical metallism is arguably a more accurate and useful way to account for the way that Bitcoiners think about the value of Bitcoin. For Schumpeter makes a distinction between practical metallism on the one hand, and the more dogmatic theoretical metallism on the other. The latter refers to the theory that money *must* be made of a substance like gold or silver such that its exchange value is derived from the value of the substance "considered independently of its monetary rule" (ibid: 288). Likewise, Schumpeter usefully clarifies that it is possible to be a practical metallist without being a theoretical one. Similarly, he writes that it is equally possible to pair practical metallism with other philosophies of money—chartalism, for example—which hold that money need not be made of gold (or another commodity) or

convertible into gold (ibid). Indeed, Schumpeter could have been writing about Bitcoiners when he wrote,

> Lack of confidence in the authorities or politicians, whose freedom of action is greatly increased by currency systems that do not provide for prompt and unquestioning redemption in gold of all means of payment that do not consist of gold, is quite sufficient to motivate practical metallism in a theoretical c[h]artalist" (ibid: 289).

On this note, it is worth putting to rest one last claim about Bitcoin related to its digital metallism—the notion that it backgrounds credit relations (Maurer et al. 2013). Bitcoin's practical metallism must be analysed in the context of that which it is a reaction against—debt-based fiat money which has financed huge amounts of deficit spending. Taken in context, though Bitcoin is debt-free money, its fixed supply and disintermediation of the state and banks can be read as a comment on the state's creditworthiness—these features amount to a withdrawal of "public trust" (Graeber 2011: 53). As one Bitcoin core developer explained to me, "opting out" of fiat money is "super political. It is a very different take on how we should organise society's spending and what sort of monetary policies are acceptable." In other words, Bitcoin's practical metallism is not about creating an ideal version of money—it is the product of a dialogical relationship with fiat currencies like the dollar and means of problematising the credit and debt relations they entail.

In sum, acknowledging the nuanced and syncretic quality of Bitcoiners' philosophy of money—its hybrid of practical metallism and social constructionism—is key, not only to understanding Bitcoin relative to other historical forms of money, but to capturing the complexity of community members' convictions and their political potential. It is to this element of crypto people's philosophy of money that I turn to next.

Speculation and the performativity of value

Within the crypto community, the success of crypto assets such as bitcoin and ether has given rise to a great deal of guesswork about "the agencies animating value" (Maurer 2006: 28)—not just with regard to crypto assets, but also with regard to fiat currency. Among crypto assets, Bitcoin is in many ways exceptional for the way its characteristics speak to particular theories of

money. Other crypto assets are less easily assimilated into conventional economic theories of value. Perhaps for this reason, a variety of "narratives" have emerged over the years to explain why particular crypto assets are valuable.

Descriptions of bitcoin as "digital gold" or "sound money" represent two such examples. These attempts to theorise value always seem to be partly about making sense of the crypto asset in question and partly about the "intelligibility" (Roitman 2005) of existing economic frameworks of value as applied to that asset. Often, there is an element of mimesis in these narratives, as with digital gold—the notion that bitcoin amounts to a digital representation of some of gold's characteristics. In other narratives, the element of mimesis plays out not in the way that a crypto asset imitates a commodity, such as gold, but in the way that it imitates another crypto asset. For example, during my fieldwork, developers implemented an update to Ethereum's code which, the community anticipated, would transform ether into a deflationary currency. As a result of this, some Ethereum community members propagated a new narrative—ether would be "ultra sound money," even more sound than bitcoin.[20] While this particular narrative was a competitive jibe at Bitcoin, the digital gold narrative, and others like it, often seemed to me a way of addressing outsiders' anxieties about the value of Bitcoin—specifically, the concern that it might just be a bubble, a "performative illusion" (Lempert 2014: 386)—by facilitating a comparison that underlined its "fundamentals" for prospective investors.

Yet, within crypto, my interlocutors understood narratives like digital gold as not just making the value of Bitcoin intelligible to outsiders, but also as creating value. In the words of one interlocutor: "the narrative is very critical to the value proposition of a cryptocurrency," especially in its early stages. I think most people rally to a narrative better than they'll rally to most other things." This idea that narratives about value create value brings us back to the idea of performativity. In a way that resembles Callon's contention that economists shape the economy and economic actors with economic theory (Callon 2007), my interlocutors believed in their

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[20] The idea that an imitation could be more authentic than the real thing is one that recurs in crypto. Bitcoiners often claim Bitcoin is better than gold because it is even more scarce, for example. Likewise, in chapter two, I described the Ethereum Killers—blockchains who claim they can better facilitate the original vision of Ethereum with their technologies. In chapter two, I also mentioned Bitcoin Cash, which claims it fulfils the original, authentic vision of what Bitcoin was intended to be. I am indebted to Deborah James for originally pointing out this tendency.

ability to shape the value of crypto assets and the markets which emerge around them through discourse.

This mirroring of economists' performativity is interesting not only ethnographically, but historically. It is striking, for example, that Bitcoin and other cryptocurrencies emerged during a period, as Graeber notes, in which "the amount of money placed globally in speculative markets quickly came to dwarf that invested in trade and industry, and when almost everyone in wealthy countries was encouraged to invest in the resulting speculative markets in one form or another" (2012: 28). This magnification of speculation has made it "crucial to the generation of surplus value" and has resulted in the entanglement of "the commons of the state" as well as citizens in projects of extraction (Bear 2020: 6). As Graeber notes, this period also saw an embrace of "performative gestures" not only in economics—with the dire result of the financial crisis—but also in politics as politicians espoused the belief that "power creates its own truths and its realities" (Graeber 2012: 28). Graeber was writing specifically about George W. Bush, but the principle lives on. In short, Graeber argues, "the age of the financial bubble corresponded to a kind of high watermark of the political"—an embrace of the principle that "reality actually is whatever one can convince others to accept" (ibid: 29).

Yet, Graeber argues the much-embraced principle of performativity came with a paradox; that is, it wasn't supposed to work if you told people about it (2012: 38). He offers an example: "If I were to convince everyone in the world that I was Emperor of Argentina…I would indeed be Emperor of Argentina;" yet, "I cannot very well convince the world that I am Emperor of Argentina by telling everyone that if they believe this, it will become true" (ibid: 29). In crypto, however, people claim that the latter is precisely what happens—crypto people transparently promote the idea that if enough people believe in the value of a cryptocurrency, it will have value. Recall, for instance, the words of my interlocutor that featured in the beginning of this chapter: "Bitcoin has intrinsic value because people believe it does. Same with fiat." This principle has also arguably been tested more recently in the public markets with so-called "meme stocks," in which companies on the brink of bankruptcy have been salvaged thanks to the coordinated channelling of small-time investors' collective belief.

Money and power: a comparative example

But why do crypto people choose to believe in the value of cryptocurrencies when the performative quality of value is laid so bare? Asserting that value is a function of collective belief—that it is ultimately performative—is one means of pointing to the ways that value and money are socially constructed. For the moment, I want to concentrate on how this vision of money also suggests that it is a "potent conductant of power" (Robbins & Akin 1999: 22) which has the potential to be appropriated to other ends. When considered in the context of crypto's challenges to state currencies, for example, pointing to the socially constructed nature of money is a way of pitting the power of the people against the power of the state by highlighting citizens' ongoing acquiescence as critical to the legitimacy of fiat currency. If the people remember the socially constructed nature of money, then the "institutional stability" of money will be undermined as well as the social relations that underpin this (Carruthers and Babb 1996: 1558).

Crypto people readily understand that there is political potential—specifically the potential to shake up existing social relations—in the act of unveiling the socially constructed nature of money. For example, consider the remarks of one interlocutor, as expressed at a Crypto Salon. During the meetup, he described crypto as a way for groups of individuals to seize the power of the state for their own ends: "I want the powers of a nation-state—and the foundational tool that the cabal of the world has [is money]. Do some research on the Fed and the World Bank and how the world *really* works—the people want that power for themselves. They're kind of over it, this whole, let's say banking as a representation of control." Here my interlocutor suggests that the world is not as it appears at first glance—a closer look, he implies, will reveal that money is key to the way that the state and institutions like the Federal Reserve and the World Bank concentrate power among themselves and control citizens. Likewise, in seizing the ability to create money themselves and the knowledge of its socially constructed nature, my interlocutor suggests that the people too can access the power that money affords. Crypto creates a kind of "chaos," he suggested, "but in its wake it creates opportunity and the breaking down of this boomer society." The idea that money could break down the social relations associated with a society dominated by "boomers" suggests that money is capable of dissolving social hierarchies—a kind of radical reformulation of Simmel and Marx's view of money as a social acid (Bloch and Parry 1989).

My interlocutor's understanding of money has interesting parallels to the Melanesian context, where money is seen as containing "unrevealed possibilities for the future, hidden agencies, and identities that might be exploited or might engender exploitation" (Foster 1999: 230-1). Likewise, in the Melanesian context money is seen as something that makes people "hot"—a term also associated with the power of magic and sorcery—meaning it confers the ability "to change people's minds, and thereby influence their actions" (Mosko 1999: 42). In North Mekeo, Mosko shows that this quality was conferred to money as a result of an influx of commodities and money (*moni* in pidgin) in the 1990s which had the effect of destabilising existing social hierarchies. More specifically, the "hot" powers of magic were once monopolised by select male hereditary officials who diverted most of the money and commodities that entered the community towards themselves as a means of enhancing their power and authority (Mosko 1999). When an influx of wealth entered the community in the 1990s due to the recently successful growing and marketing of betel, however, regular people were newly able to access money and commodities. As access to money and commodities widened, so did the power of being "hot," because money, like sorcery, "makes people think or do what otherwise they would not, or not think or do what otherwise they might" (ibid: 42). The result, Mosko reports, is that "ordinary villagers, previously dominated by the ritual monopoly of hot sorcery powers by hereditary officials, have now become hot moni sorcerers themselves" (ibid: 43).

The Melanesian context is, of course, different from the crypto community in myriad ways— especially in the ways it has been shaped by colonial encounters. However, I cite these examples because both Melanesians and crypto people make explicit links between money and power or agency (Robbins and Akin 1999) that get at the "invisible potency" of money (Graeber 1996: 20) and its magical ability to influence social relations. Likewise, Foster, citing Mosko's work, suggests that it is helpful to consider how the introduction of new types of money into a given context might result in their entanglement in "struggles over key relations of social reproduction" (1999: 221), which are "often organised as intergenerational contests" (ibid). Considered in the context of chapter three—in which I argued that crypto people are engaged in an intergenerational conflict over which logics of redistribution, accumulation, and authority ought to govern the economy—the example cited from Mosko's work seems particularly relevant.

Indeed, the interlocutor whose remarks I cited above went on to decry younger generations' powerlessness: "this generation has no control," he lamented. With the creation of money and control over flows of capital concentrated largely in the hands of gerontocratic unelected government officials and bankers, the introduction of cryptocurrencies has given younger generations the opportunity to become "hot moni sorcerers" (Mosko 1999: 43) themselves—something that is visually embodied all too well in the magic internet money wizard pictured at the start of this chapter.

Social constructionism as speculation

I'd like to briefly return to my interlocutor's assertion that the world is not as it appears at first glance—that value, money, and power can be explained through the machinations of various institutions whose power has been naturalised. The act of remembering this power—this insistence that reality is socially constructed—is a key part of the crypto community's strategies of accumulation. In aiming to reveal the mysterious means through which social institutions like money function, social constructionism ultimately works like a technology of imagination (Bear 2015b). Through its acts of "disclosure" which denaturalise social institutions, social constructionism "evoke[s] the possibility of a parallel second world alongside the obvious surface of relations" (Bear 2015a: 101). In other words, crypto people's social constructionism is a way of getting at the *really real* dimensions of value and their connection to power—it is a strategy that aims to harness these revelations "to create profit by moving beyond the limits of the tangible and visible" (ibid). Politics, insofar as it is performative, always requires this sort of suggestion that there is "something more real behind one's claims" (Graeber 2012: 29). Money, as a political institution, is no exception. As one of my interlocutors quipped, "even the nation-state needed God to make currency, d'you know what I mean?" I understood this to be a reference to the "In God We Trust" motto on the dollar—a kind of branding, my interlocutor implied, that invoked a divine realm beyond the nation.

Intriguingly, my interlocutors sometimes tried to draw me into their efforts to harness the revelations of social constructionism by tapping into my knowledge of anthropology. They perhaps recognised a connection between their own acts of disclosure and the way that

disciplines like anthropology and sociology probe "the *reality of reality*" in an attempt "to reach a reality that is more hidden, more profound and more *real*" (Boltanski 2014: 32). For example, at the end in chapter two, I mentioned that crypto people often asked me about what makes communities "work." Some people who asked this explicitly said they wished to understand community so that they could harness its power to improve their own projects and the prospective profits that might result from them. My relationships with my interlocutors, therefore, might resemble the "complicit friendships" that Bear describes as critical to the governance and development of the Hooghly river in India. These friendships "promise that it is possible to know the truth *beyond* and *behind* the public truth" (Bear 2015a: 101). In interviews, meetups, and other venues, my interlocutors and I engaged in "mutual speculation" (ibid: 102) about the reality beneath the surface—about the origins of money and value, how community really works, and what crypto people are really doing.

It is notable that there is yet another connection to anthropological work on magic here. In this instance it is between the "speculative labour" of crypto people's social constructionism and classic anthropological studies of "divination or magic"—in that both "reveal a hidden order of human and non-human powers that explain the past, present and future" (Bear 2020: 8). Indeed, for Taussig these acts of revelation always exist in a dyadic relationship with acts of concealment (Taussig 2016)—"the exposure of the [magic] trick is no less necessary to the magic of magic than is its concealment" (ibid: 460). In the next section, I continue to explore how social constructionism is linked to crypto people's labours of speculation and strategies of accumulation by examining recent work on crypto scams. I draw on anthropological work on magic to make sense of their ambivalence about scams and argue that scams are acts of revelation which reinforce the "magic" of crypto.

II.   The sympathetic magic of magic internet money

What does it mean to call Bitcoin or other cryptocurrencies magic internet money? In my view, this is an expression of wonder at the way that money comes into being as a social institution. The mystification surrounding the creation and maintenance of the conditions under which this takes place lends these conditions the air of magic. For crypto people, then, it is arguably the way that money and its value are brought into being that is the source of its power (Gell 1992: 46). Below, I show that crypto people regard the performativity of value as, at once, a trick which has been used against them to ensure their compliance in a particular construction of the economy, and as a technique which can be mobilised in subversion of this economy.

Scam as technique

Graeber argues that magic has proven a particularly challenging concept for anthropologists to work with. For early anthropologists, he explains, magic "had simply been a collection of mistakes," a "category" which "included all those techniques that the observer thought possibly couldn't work," such as charms or curers (2001: 240). Likewise, anthropologists have long struggled with the "air of trickery, showmanship, and scepticism" that always accompanies magic (ibid: 240-1). There are some interesting parallels to crypto here. For, as mentioned previously, crypto is often conceived of by critics as a sort of trick or illusion, a particularly persistent bubble that is destined to collapse—and when it does, they have long claimed, the truth about crypto's value will be plain for all to see.

As with magic, anthropologists and other scholars have struggled to engage with the "trickery, showmanship, and scepticism" that is clearly present in crypto (Graeber 2001, 241). Scepticism especially is pervasive amongst crypto people; they readily acknowledge that there are scams, "rug pulls," and various other tricks at play in their communities. Indeed, crypto sleuths regularly tweet blockchain-based evidence to "out" certain members as scammers or frauds in an effort to protect people from their deception. These tweet threads have, in some cases, catalysed investigations by state authorities. Likewise, disputes between communities often involve allegations of scamminess, as I demonstrated with my analysis of Bitcoin and Ethereum in

chapter two. There is, however, a certain ambivalence about scams amongst crypto people that academics have struggled to understand in recent works on crypto. I turn to this next.

In an article on the initial coin offering (ICO) boom, Swartz tries to make sense of the ambivalence she detected amongst her interlocutors. The ICO boom, as explained in previous chapters, was a period during which new crypto projects proliferated—many of which turned out to be scams. ICOs enabled people who had an idea for a crypto project to finance the project via the creation and sale of Ethereum-based tokens. Some of the projects eventually built the products they set out to create, while others simply ran off with the funds they had raised.

In the article, Swartz argues that the ICO boom was a "network scam," or "a collaborative effort to bring about a shared future, but one that is fundamentally characterised by arbitrage on uneven belief among participants in that future ever coming to pass" (Swartz 2022: 1696). For Swartz, crypto is a utopian project which is fundamentally concerned with bringing about a particular vision of the future which hasn't yet arrived and probably never will. ICOs were scams because of this temporal "misalignment": "ICOs were predicated on the coming 'Internet of value' run on a 'token economy' and vice versa," she explains (ibid: 1706). Though the tokens arrived, the Internet of value did not; as a result, Swartz argues, the tokens are not worth anything and amount to scams (ibid). Here, Swartz understands scams to include projects that were fraudulent from the start as well as those that set out to build something but which, in the end, amounted to "vapourware" (ibid).

Yet, what made the ICO boom a *network* scam was crypto people's collective contribution to the creation of "hype"—a term which seems to make a distinction between real and fictitious value (Bear 2020; Gilbert 2020). This hype is something in which crypto people do not, according to Swartz, "really believe" (2022: 1707, 1706). The evidence for this lack of belief is crypto people's ambivalence. One interlocutor told her, for example, that if "enough people hold…their investment [in ICO tokens] long enough," then the tokens cannot be considered a scam. Nonetheless, this person emphasised, knowing when to sell the tokens is key because no one wants to be left *holding the bag*—slang for holding tokens after their price has declined precipitously (ibid: 1706). This is the "arbitrage on uneven belief" referenced above (ibid: 1696).

Likewise, Swartz reports that her interlocutors claimed that "all crypto projects are…a 'little bit scammy'" (ibid: 1706) and says they cautioned that she should "beware of everyone else that I'm interviewing or reading" (ibid). "The thing you have to understand," they told her, "is that you can't trust anything anyone says because everyone is just pumping their bags" (ibid).

I'd like to break down Swartz's claims one by one. First, I believe there is reason to doubt her interpretation of crypto people's ambivalence or scepticism as a sign that they do not believe in their own hype. As Taussig suggests, anthropological studies of magic have demonstrated that belief or "faith seems to require that one be taken in by what one professes while at the same time suspecting it is a lot of hooey" (2016: 455). That is to say that faith or belief "seems to not only happily coexist with scepticism but *demands* it" (ibid: 455). For example, in his analysis of several classic studies of magic, Taussig shows that even those who doubted the authenticity of magicians feared magic (ibid). Graeber reports a similar dynamic in Madagascar where he found that no one was certain whether a curer's magic was real—there was a constant vacillation between belief and scepticism (2001: 243-4). This was because there was always a chance, he explains, that the curer might be magical; but it was equally possible that he or she "*might* be one whose power was based on their ability to convince others that they had it" (ibid: 244).

This dynamic similarly exists in crypto with regard to new projects, such as those that emerged during the ICO boom. In crypto, community members know that their knowledge of other members' intentions is only ever partial—there is always a possibility that a person you think you know and trust, or the token you have invested in which looks so promising, is really a fraud. This has especially been the case in recent years as project founders have increasingly chosen to remain anonymous. Nonetheless, there is a general feeling that any one of the projects emerging could be genuinely innovative. However, most projects do not succeed at changing the world, and they are sometimes unveiled as not simply having failed, but as having been a scam all along—a mere performance of innovation, not the real thing.

Swartz's next claim that crypto people engage in "arbitrage on uneven belief" (2022: 1696) points to the issues of short- and long-term cycles of exchange discussed in chapter two. Her interlocutors told her that if "enough people hold…their investment [in ICO tokens] long

enough," then the tokens cannot be considered a scam (ibid: 1706). Ultimately, in my view, this is not a problem of belief. Rather, it relates to the issues of token disposability and community discussed in chapter two. More specifically, I would interpret Swartz's interlocutor as speaking to the way that crypto projects must transform token holders into community participants through mechanisms which temper the disposability of tokens. The failure to do so leaves projects with token holders who are interested in short-term speculation, rather than the long-term success of the project. Arbitrage may be the result, but it is not, in my view, as cynical as Swartz suggests.

Next, we have what is perhaps one of the most interesting details from Swartz's article—her interlocutors' assertion that "all crypto projects are…a 'little bit scammy'" (ibid: 1706). In my view, what these crypto people are trying to convey is the view that all value is performative—it is the product of persuasion (Graeber 2012). The consequence of this political view of value, in which reality is that which people are persuaded to believe, is that essentially everything is, to some extent, a scam: "a scam, after all, is a deceit, a misrepresentation—and in politics there is only representation" (ibid: 29). Importantly, Swartz also says that her interlocutors cautioned that she should be wary of other crypto people's claims (2022: 1706). "The thing you have to understand," they told her, "is that you can't trust anything anyone says because everyone is just pumping their bags" (ibid).

Yet the fact that apparently so many people made this remark is notable to say the least. My own reading of this is that the repeated expression of scepticism seems "culturally important" (Taussig 2016: 466) to crypto people. Similar to Kwakiutl society, in which "just about everyone…revels in declaring shamans to be fakes and rarely lets an opportunity slip to insist on this elemental fact" (ibid: 467), few people in crypto pass up an opportunity to call others grifters. But the accusation that individuals are grifters because they are pumping their bags is not the same thing as casting doubt on the *practice* of "pumping" tokens, which ultimately involves making them valuable by saying that they are. This commentary, which often involves claims about the radical potential of the token project, aims to enchant. It seeks to cause people "to perceive social reality in a way favourable to the social interests of the enchanter" (Gell 1988: 7). When crypto people cast aspersions on each other, it is not this enchanting commentary

that is problematised. Rather, it is the commentators—the practitioner, not the practice (Taussig 2016).

Why would this be culturally important? Arguably this is an example of the revelation/concealment dyad that Taussig argues is essential to magic's mystique. The admission that crypto always involves an element of scamminess paradoxically reinforces the magic of the practice of performativity for crypto people. Crypto people's claims that all crypto projects have some element of scamminess act as "vehicles for confession" (ibid: 468) that reveal the trick of performativity. This is an intensely relativistic way to look at value. Yet it is important to note that crypto people's assertion that all projects are *somewhat* scammy makes a subtle distinction between scamminess and genuine fraud or theft.

Arguably, that distinction hinges on whether people are awake to the performance. If they understand the value of whatever they are buying into is performative—the product of techniques of enchantment or social construction—then the project or token in question is simply a little bit scammy. If it is only the project creators who are "in" on this deception, however, then the project is a scam. For example, my interlocutors often described how they had "aped in" or thrown money into crypto tokens which they knew little about. They knew that these tokens might flop or that the projects associated with them might disappear entirely, but, with this knowledge, the act of investing in them amounted to a conscious act of self-deception. However, their reaction was entirely different when the popular crypto exchange FTX was revealed to have misused users' funds. This was a deception to which crypto people were not privy; moreover, it involved theft. Therefore, it was an instance of genuine fraud.

Though outright theft is problematic, the revelation of the trick of performativity is not, however, because it is seen as a mimesis of the kind of equally performative speculative value that is created in traditional finance and through fiat money and which is key to accumulation in the contemporary economy. Consider for example, the following tweet which suggests a relation of equivalence between the US dollar and certain crypto coins which are transparent money grabs: "These scam coins are getting crazy. Someone just shilled me: 27 trillion in circulation; unlimited supply cap; only 1 node; 25% of supply minted in last 6 months; 1% of holders own

30%. jk that's the US dollar" (joinryze 2021). This tweet is impactful because of the way that it recasts the characteristics of the dollar in crypto terms. No crypto investor in their right mind, it implies, would invest in such a coin given these "tokenomics"—that is, these characteristics of distribution and supply. Seen through the lens of crypto analysis, the dollar is far too centralised. What's more, its unbridled supply and the concentration of ownership amongst "whales" are both red flags which indicate that these entities could "dump on" smaller holders at any time.

The perception of this mimetic relationship between performative forms of value created by crypto and those created in the mainstream economy has the effect of legitimating the performativity of value—the trick is revealed to be a technique (Taussig 2016) for accessing and harnessing the "hidden order of human and non-human powers" (Bear 2020: 8) that make possible the accumulation of capital. This is perhaps a kind of sympathetic magic—the imitation has usurped the accumulative power of the original (Taussig 1993: xviii). That the technique is perceived as legitimate is well-captured by the remarks of another crypto person cited in a recent work on scams. In his recent doctoral thesis, Yogarajah describes his experience as a "scam hunter" and writes of his frustration when he could not convince his interlocutors that he had identified a scam: "the term seemed to lose all meaning for many of my participants," he laments (Yogarajah 2022: 211). Waving off his attempts at persuasion, one interlocutor simply told him, "if everything is a scam, nothing is a scam" (ibid). Though the trick may be a legitimate technique, its equation with scamminess also suggests that crypto people are making an implicit moral critique of the contemporary economy. If value is performative—"if everything's a game"—one of my interlocutors suggested in a meetup, "then nothing matters." Another interlocutor suggested that discovering how things *really* work isn't always a good thing. "My first foray into academia was in applied physics," he told us, "and I was surrounded by people that became nihilistic once they discovered how minuscule we are in the space of the universe." Perhaps, then, in the same way that applied physics brings our cosmic insignificance into perspective, social constructionism reveals the hollowness of the pursuits of value in which we are all entangled.

III.   Conclusion

Internet money sorcery has largely been the purview of groups, rather than individuals, in crypto. However, with the arrival of social tokens—tokens issued by influencers and internet communities to monetise the forms of value they create—individuals increasingly began to try their hand at conjuring up money and value. As noted in chapter two, the cult of personality inherent in the social tokens that were issued by individuals rather than communities was objectionable to many crypto people who felt that this exemplified the kind of centralised authority that crypto was supposed to disintermediate.

Though a variety of narratives emerged to account for the development of social tokens—they were about empowering creators or allowing people to invest in individuals' futures—some crypto people saw personal tokens as a blatant "power grab." One interlocutor, for example, conjectured that social tokens were "not about any person who's pushing this kumbaya thing"— meaning individuals who issued social tokens were not, in fact, attempting to build community around themselves or trying to monetise the value they create, as they usually claimed. Instead, he claimed, social tokens were about power—the creation of a mini nation-state. "It's about having a nation with people in the nation and you controlling the currency means that you can pull the levers in that community." Investors in social tokens, he said, "*see through it*, but they also see an opportunity to get value themselves so they're willing to play along." These tokens would be most successful, he suggested, when branded not after the individuals who had created them but "for something else—just with something that can *become its own thing*—separate from them even though it initially started with them."

Once again, it seems we are back to revelation and concealment, trick and technique— sympathetic magic even (Taussig 2016; 1993). But the implication of this example is that social tokens do not act like other cryptocurrencies, which provide egalitarian access to the money magic of states and traditional financial institutions. Social tokens, rather, have the potential to transform a technique of accumulation into one of domination. The outcome of magic internet money and its techniques, therefore, remains somewhat indeterminate—there is always the possibility that money magic falls into the wrong hands. The anxieties about power and money's

hidden potential here, as well as the dynamics of revelation and concealment, are at the heart of this chapter.

In sum, I have tried to capture the complexity of the crypto community's philosophies of money and value, while introducing the idea that crypto people see money and value as socially constructed. I have suggested that this development tracks with the expansion of the role of speculation in the economy as well as the embrace of performativity in politics. Additionally, I have suggested that crypto people's social constructionism is a key part of the strategies for the accumulation of generational wealth documented throughout this thesis. However, I should clarify that crypto people's embrace of performativity and social constructionism does not mean that they deny the role that state force plays in backing fiat money. On the contrary, they are acutely aware of it. Rather, as one interlocutor explained, it's simply that they perceive state violence as not having been "migrated" to "the digital world."

Crypto people's social constructionism is a technology of imagination which bears a resemblance to magic in that it aims to lift the veil on the techniques which create value and confer power. Scams and scamminess in crypto, I argued, can also be usefully explored through the lens of magic, which provides a framework for making sense of scepticism, ambivalence, trickery, and mimesis. Allegations regarding scams and scamminess, I posited, act as key moments where the crypto people's subscription to performativity is revealed as a trick. These moments of revelation paradoxically reinforce the magic of crypto. Likewise, this section reveals that the trick of performativity is rendered a technique due to the way it mimics the creation of value in traditional finance. Taken together, this chapter's insights emphasise the way that crypto people view value, money, and accumulation as intensely political activities. These insights act as an important counterpoint to previous works on crypto which suggest that blockchain technology is designed to remove politics from money as well as those which focus solely on links between crypto and commodity theories of money.

CHAPTER FIVE:

Memes: A Technology of Enchantment and an Enchanted Technology
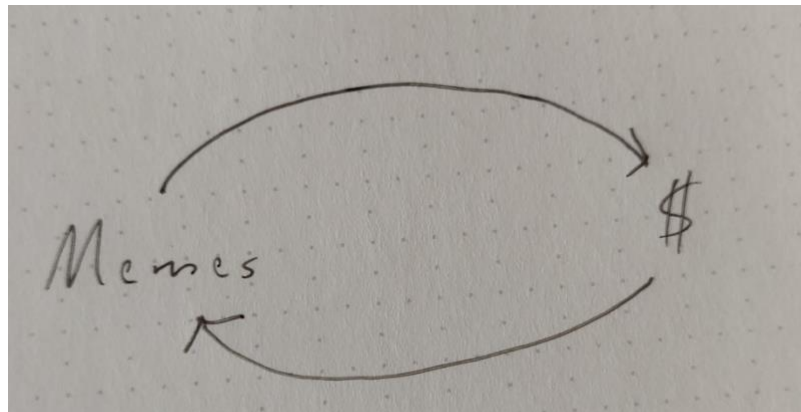
Figure 6 An interlocutor's drawing (maxwells_d3mon 2020)

"If we meme it, they will come," quipped one crypto project founder on Twitter (owocki 2021). He was seeking to attract applicants for the job listing to which his tweet linked: "Meme artist/ shitposter/community manager" for a decentralised autonomous organisation (DAO). The "ideal candidate" would have "great vibes" and would be tasked with "meme-ing" the DAO's "community governance process into existence" (ibid). Internet forums have long been populated by memes, which can be loosely described as humorous images and videos that circulate widely around the internet or within a particular online community, often incorporating simple text elements and repeating characters or tropes. More recently, the term "meme" has also come to encompass behaviours, words, trends, and narratives. Though memes have appeared throughout this thesis, I have yet to offer sustained analysis of the role they occupy in the crypto community. This chapter aims to fill this gap.

As the phrase "meme into existence" indicates, for crypto people, memes have generative potential—the capacity to bring new practices and new forms of value into being. As such, the creation and circulation of memes is a key part of the labour of speculation that is critical to crypto's strategies for accumulating generational wealth. Indeed, Figure 6, provided by one of my interlocutors on Twitter when I asked for a drawing of how the blockchain works, suggests that memes and money exist in a circular relationship.

In this chapter, I analyse memes as art objects which contribute to the "technical system" that Gell refers to as the "technology of enchantment" (1992: 43). Gell sees this system as underwriting processes of social reproduction by providing the means "whereby individuals are persuaded of the necessity and desirability of the social order which encompasses them" (ibid: 44). I treat technologies of enchantment as a subset of the technologies of imagination I have described elsewhere in this thesis; I make this distinction to particularly emphasise how memes are implicated in the practices of persuasion which generates and sustains the collective belief that crypto people see as critical to creating value. Additionally, I deviate slightly from Gell's definition to suggest that, equally, technologies of enchantment can be used to challenge or exploit the existing social order. More specifically, in this chapter I show that memes are key tools in crypto people's efforts to reveal value, power, and society writ large as socially constructed. Likewise, for crypto people, memes play a key role in the animation of crypto capital.

I.   Dangerous memes?

A little more than a decade ago, Ryan Milner struck a positive note in an oft-cited article about Occupy Wall Street memes, arguing that memes contributed to a "vibrant polyvocal discourse" (2013: 2357). In more recent studies of memes, however, academics have put forward rather less optimistic arguments about this loosely defined genre of internet art objects. Indeed, ever since the Great Meme War that preceded the 2016 American presidential election, scholars have increasingly regarded memes as fertile sites for the reproduction of ideology (Lovink & Tuters 2018).

Similar concerns appear in recent studies of crypto memes and in adjacent works on non-fungible tokens (NFTs) which are often used to represent digital art. Some NFT artworks borrow stylistic techniques and characters from memes, which has meant that academics have similarly scrutinised NFTs for the aesthetics of right-wing neo-populism. For example, Frieman makes an aesthetic link between NFTs and fascist futurism via memes (Frieman 2023); Yogarajah posits that the context in which crypto memes are shared on 4chan supports the notion that right-wing

ideology underpins crypto (Yogarajah 2022a); and Maurer sees parallels in some NFT collections to the meme culture of the alt-right (Maurer 2023).

In this chapter, I aim to advance a more agnostic view of memes in crypto which channels something of Gell's "methodological philistinism" (1992: 42) and starts with the premise that, though crypto memes may share characters and tropes with memes associated with right-wing groups, it should not be taken for granted that these characters and tropes have the same meaning in both contexts. It is imperative that the aesthetics of memes are considered alongside the social processes which shape the circulation of memes. Below, I revisit the Great Meme War with a view to understanding how the perception of memes has shifted since. The first section aims to establish that the efficacy of memes as a technology of enchantment is derived from the "enchantment" of memes as a technology (Gell 1992: 44)—something that results from the mysterious processes through which memes are created and circulated. The latter sections aim to demonstrate that the effect of the memes utilised in the Great Meme War was to create a spectacle which centred on the disclosure of secrets which allegedly give order to society.

The Great Meme War

When Donald Trump was declared the winner of the 2016 American presidential election, media reports from election-night gatherings were filled with quotes from shocked voters. "What happened? What did we just do" one woman at a gathering at New York's Javits Centre asked a Guardian reporter. The same article reported that Trump had "shattered expectations," and that his success had revealed a "deep anti-establishment anger among American voters." The country—and the world—had been sent on "a journey into the political unknown" (Roberts et al. 2016). For many Americans on the left, the election exposed what seemed to be a gaping chasm between their views and the views of their countrymen. Opinions they had previously considered to be fringe had suddenly prevailed—or, to use Lepselter's words, the "emergent" had somehow become "dominant" (2021: 26).

Published in the aftermath of the election, a *Politico* article explored one phenomenon that was thought to have contributed to Trump's shock victory: the Great Meme War. The article's

tagline: "how a group of anonymous keyboard commandos conquered the internet for Donald Trump—and plans to deliver Europe to the far right" (Schreckinger 2017). The article referred to a variety of "pro-Trump" memes which had emerged from the depths of 4chan, an imageboard with a reputation for playing host to a variety of irreverent, anonymous trolls who post content that is intentionally shocking and offensive to outsiders (Coleman 2015: 41-2). "The meme battalions," the article lamented, had produced pro-Trump propaganda that rivalled the power of Obama's famous "Hope" posters and which spread conspiracy theories about Trump's opponent, Hillary Clinton (Schreckinger 2017). Memes weren't new, of course, but during the 2016 campaign, "they began colliding with a real campaign operation and doing useful work" (ibid).

The notion that memes perform "work" is an intriguing slippage that recurs in media and academic analyses of memes and seems to conflate meme-makers and meme-disseminators with the memes themselves—both are treated as agentive. Indeed, in the article, the reason that memes are construed as dangerous is at least partly because they appear to embody the agency of the right and help to channel it to new effect. While this assignment of agency to memes can come across as fetishistic, it is perhaps more useful to think of memes not as fetishes, but as "secondary agents"— objects which mediate and distribute the agency of people ("primary agents") (Gell 1998: 20). Memes then, are not objects which act on their own, but rather objects which are an extension of the people with which they are identified, things which act as "objective embodiments of the *power or capacity to will their use*" (ibid: 21, emphasis original). Memes, of course, are rarely identified with one person, however, since their success is contingent upon their widespread dissemination which requires the participation of many internet users. As a result, memes are perhaps objects that seem to embody the will of the crowd, rather than the power of any one person. For this reason, they are also associated with populism (Milner 2013: 2359) and the "hive mind"—groupthink which is facilitated by social media.

It is this aspect of distributed agency which arguably contributes both to the alarm about memes' potential and the mystification surrounding the processes through which memes become popular or "go viral"—one facet of so-called "meme magic" (Yogarajah 2022: 482). Though memes may start their lives in 4chan imageboards, the precise means through which they are propelled into the feeds of more mainstream social media sites are long obscured by the time they arrive on

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these platforms—as are the reasons for which their appeal registered in the first place. As an object whose production and circulation exceeds the efforts of any one individual, therefore, the meme "transcends the normal sense of self-possession of the spectator"—and despite his usage of rudimentary renderings, the meme artist is seen as an "occult technician" (Gell 1992: 49, 51)—one that, during the Great Meme War, was capable of "genetically engineering" Trump memes to make them appealing to mainstream audiences (Schreckinger 2017).

Gell argues that art, as a technology of enchantment, derives its power from the "technical processes" which contribute to its creation and which are so remarkable that they seem magical: "it is the way an art object is construed as having come into the world which is the source of the power such objects have over us—their becoming rather than their being" (1992: 44, 46). This analysis seems to be as applicable to memes as it is to the other forms of art that Gell describes—including a particularly realistic painting and a dazzling Kula canoe. While memes do not share the painting's photo-realism or the canoe's stunning and intimidating effect, they do similarly inspire wonder at the processes through which they came into being. For Gell, it is this that is important—this wonder "creates a social relation" between the spectator and the artist that "provides a channel for further social relations and influences" (ibid: 52).

Yet this channel is not necessarily between the spectator and the artist himself. The artist is sometimes an analogue for a more powerful figure—a patron that is a king for example. For Louis XIV, it was Bernini's marbles which provided a "physical analogue" for his authority, buttressing it while sending the message, "what Bernini can do to marble…Louis XIV can do to you" (ibid). Were pro-Trump memes an analogue for Trump's power? Or for the populist masses? Or for Russian Twitter sock puppets? Each of these is a way that such memes have been interpreted. Regardless, the channel of influence between the creators of memes and the viewers of memes—which transformed viewers into disseminators—was alarming to critics who saw pro-Trump memes as critical to mobilising the tide of sentiment online and turning it against Clinton.

A sinister symbol?

Many of the pro-Trump memes circulated during the Great Meme War made use of Pepe the Frog, a meme character which started life on the internet as an innocuous cartoon but later came to be associated with racism, sexism, and antisemitism. Indeed, in September 2016, the Clinton campaign posted an "explainer" of Pepe the Frog on its website, warning that "the cartoon frog is more sinister than you might realize" (Chan 2016).

The post featured a meme in which the faces of pro-Trump conservatives had been superimposed onto an image from the film *The Expendables*, with Trump's face represented as an iteration of Pepe. "THE DEPLORABLES" cut across the middle of the image, a reference to Hillary Clinton's declaration that "you could put half of Trump's supporters into what I call the basket of deplorables. The racist, sexist, homophobic, xenophobic, Islamophobic—you name it" (Know Your Meme 2016). Clinton's statement triggered furious reactions from the right, who argued that it was inflected with elitist disdain for a significant portion of the American electorate.

Clinton quickly apologised for the remark, and on the left, the right's cries of elitism were largely brushed off. Soon, the left moved on from Clinton's blunder to focus on the meme it had spawned. Days before the Clinton campaign posted their Pepe explainer, an NBC article quoted an employee of the Southern Poverty Law Centre, a civil rights organisation that tracks hate groups (Southern Poverty Law Center n.d.), who claimed that "Pepe the Frog is a huge favourite white supremacist meme" (Vitali 2016). The Anti-Defamation League, a civil rights organisation which fights antisemitism and extremism, followed soon after, condemning the meme as a "hate symbol" (Smith 2016). The notion that Pepe was an alt-right symbol quickly gained ground as articles on the subject proliferated in the news media.

But how did Pepe fall from innocent neutrality into the hands of the alt-right? In the Clinton campaign's telling: "Pepe is a cartoon frog who began his internet life as an innocent meme enjoyed by teenagers and pop stars alike"—the likes of Katy Perry and Nicki Minaj had tweeted Pepe memes—"But in recent months, Pepe's been almost entirely co-opted by white supremacists who call themselves the 'alt-right.' They've decided to take back Pepe by adding

swastikas and other symbols of anti-Semitism and white supremacy" (Chan 2016). But there is a different, more nuanced way to tell this story.

Trolls and trickery

First, however, some additional context is required on 4chan and trolling. 4chan, Coleman explains, is credited as the birthplace of populist trolling (Coleman 2015). It is also regarded as the birthplace of the hacker collective, Anonymous, about which Coleman writes, but which has more recently been associated in media reports with involuntarily celibate people (incels) and the alt-right. Trolls, Coleman writes, aim to unsettle—they distribute offensive content and revel in the creation of chaos. What is also critical to understand about 4chan is that it is the way its users—typically shrouded in anonymity—take freedom of speech to the extreme with their comments and content (ibid). The shock-value of the content, which often makes use of slurs and other language that is generally considered to be offensive or hateful, acts as a "discursively constructed border fence meant to keep the uninitiated…far, far away" (ibid: 42). Importantly, however, whatever the effects of their content, the intentions of 4chan users cannot simply be bracketed off as bigoted. "What's characteristic of the meme speech act," Lovink and Tuters write, is a structure of feeling that we could call ironic reason, which, in distinction to cynicism, allows its spokesperson to purport belief" (Lovink and Tuters 2018). Yet, "whether or not any of this purported belief is in fact serious is unknown and perhaps even unknowable—this is the point it tries to make" (ibid). Coleman echoes this point, suggesting that trolls often take on "identities, beliefs, and values solely for their mischievous potential" (2015: 4)—as a result, she likens them to tricksters (ibid: 34).

Extending this idea, I suggest that we regard the transformation of Pepe the Frog as belonging to a genre that Coleman describes as "trickster tales" which "reveal their lessons playfully" despite retaining a critical element, "allowing norms to be laid bare for folk-philosophical challenge" (ibid: 34). Read as a trickster tale, how does the Pepe story unfold? An abridged version goes something like this: After beginning its life in a comic series called Boy's Club in 2006, the image of Pepe the Frog surfaced on 4chan some years later, where its meaning evolved to Pepe "the sad frog." In 2014, Pepe began to circulate amongst "normies" in other forms, appearing on

Instagram and in tweets by celebrities—much to the chagrin of 4chan users who declared him dead by 2015 ("Pepe Timeline" n.d.). Later that year, however, 4chan users decided to reclaim Pepe from the normies in typical 4chan form: that is, via trolling and for the lulz, using particularly transgressive language and symbols.

Lulz, Coleman explains, is a derivative of *lol*, but a slightly more sardonic one in that those who are lulzing are laughing at someone else's expense (2015: 31). Coleman distinguishes the people engaging in lulz on the internet from people engaging in lols. The former, she suggests, "know exactly what the underbelly [of the internet] is about" while the latter do not (ibid: 32). When Katy Perry tweeted a Pepe meme, she was LOLing. When 4chan trolled the Clinton campaign into calling Pepe a symbol of white supremacy, they were lulzing. In short, I am reading Pepe's transformation into a hate symbol as the deliberate product of trolling. This is a critical trickster tale, spun by 4chan trolls—one that aims to use Pepe as bait to lure elites into revealing their censorious tendencies, thereby revealing unspoken norms to illuminate the way that society *really works*. Which norms does the story aim to disclose?

One concerns the transmission of ideas, or perhaps, the reproduction of culture itself and how this works. The Pepe story as a trickster tale is effectively a thought experiment. It poses questions about how an idea becomes legitimate, authorised, and accepted. It similarly asks who has the authority to label certain groups as illegitimate, unauthorised, and unaccepted in a democracy. It demonstrates that 4chan, an imageboard which is far from mainstream, has the capacity to influence the mainstream nonetheless. Yet the story also seeks to expose the alleged power of another group—the authorised, legitimate, sanctioned figures like Clinton, the SPLC, and the ADL—which it aims to reveal as a coordinated elite who exerts influence over the boundaries of civil discourse.

The Pepe story also interrogates norms around speech in America, which have become increasingly fraught as Americans have debated the merits of political correctness, cancel culture, and crises of representation stemming from social justice movements. For 4chan, these tensions were ripe for exploitation. As Coleman writes, for trolls, "any presumption of our world's inviolability becomes a weapon; trolls invalidate that world by gesturing toward the

possibility for Internet geeks to destroy it—to pull the carpet from under us whenever they feel the urge" (2015: 33). Not only do 4chan trolls gesture at their ability to destroy the inviolable world, but they create a spectacle which conjures the possibility of another world entirely—a spectacle that leverages tricks and conspiracy theories to reveal the allegedly opaque techniques which secretly shape America.

Indeed, what 4chan trolls are trying to show is that the Clinton campaign—and the left more generally—has such restricted norms around speech that they are incapable of engaging in the thought experiment that 4chan has placed before them. The point of 4chan's transgressive memes is to demonstrate that they are free—and this involves speculations on the social construction of society which demonstrate both their willingness to be transgressive and their willingness to call into question the contours of the social order. Here we see another instance of some of the themes that appeared in the previous chapter: ambivalent tricksters who espouse a kind of social constructionism that is underpinned by a belief in the efficacy of performativity—performativity which is realised, here, through memes and bolstered by acts of revelation and concealment.

From this perspective, Pepe looks less like an actual hate symbol, and more like an ironic performance of one. For those who are only LOLing on the internet—those who are not in the know—however, this subtle distinction goes unnoticed. This is, for 4chan, a victory—a successful deployment of political performativity, the idea that "reality actually is whatever one can convince others to accept" (Graeber 2012: 29)—a modality of power used against those elites who they perceive as usually doing the performing. This is trick as technique once again (Taussig 2016).

To those doing the lulzing, however, Pepe is intended to connote, not white supremacy or antisemitism or other views associated with the alt-right, but democratic freedom exercised in the extreme. The effects of Pepe memes may be separate from their intentions, but to regard the effects as only propagating hate would be to overlook other aspects of the spectacle they create. Specifically, I am referring to the way that the meme spectacle creates an atmosphere of secrecy and disclosure—this is critical to understanding how memes contribute to popular politics. It is

worth emphasising, once again, that the aesthetics of memes must be considered alongside the social processes which bring them into circulation, and in turn, the link between those processes and other aspects of society, such as the political context (Gell 1998: 3). Analysing memes in this way reveals that they have a dialogical quality—they are not simply making claims about the world but also anticipating responses to these claims. With all of this in mind, scholars who are quick to gloss transgressive memes and their creators as symptoms of authoritarian or anti-democratic sentiment must face a critical question: could the trickster tale of Pepe the Frog, which questions the limits of citizens' authority and speech in a democracy as well as the machinations of hidden forces which undermine democratic influence, have emerged from any other context *but* a democracy?

Approaching memes after the Great Meme War

In the above sections, I have revisited the Great Meme War with the aim of contextualising what I see as a shift—precipitated by this event—in the way that scholars perceive and analyse memes. Likewise, in doing so, I have used this pop-historical aside to draw out two aspects of memes that I see as important—both for understanding the Great Meme War and for understanding the role of memes in crypto. The first is that memes are often treated as agentive. Rather than regard this treatment as characteristic of a fetish, I suggested that it is more useful to look at memes as secondary agents which embody the power of their creators to put them to use (Gell 1998). Likewise, I proposed that the bewildering and decentralised process through which memes achieve success effectively enchants them so that they appear to be almost magical (Gell 1992). The relationship of influence (ibid) that this creates between meme creators and viewers, I suggested, perhaps accounts for at least some of the alarm about the potential for memes to be deployed for nefarious political ends.

The second aspect of memes that I sought to draw out was the way they were used to gesture at hidden forces that lurk below the surface of reality and which allegedly influenced the 2016 presidential campaign as well as American society more generally. This strategy, which I suggested amounted to an ironic attempt to imitate a modality of power utilised by political elites, is reminiscent of crypto people's mimesis of the performativity utilised in traditional

financial markets, as described in chapter four. It is these two aspects, if anything, that crypto memes share with the memes circulated during the Great Meme War. With this in mind, I now shift my focus to analysing several ways that crypto memes reflect crypto people's social constructionist leanings and bolster their strategies for the accumulation of generational wealth. The memes analysed below were all circulated by crypto people during the time that I was in the field.

II.   Crypto memes

"Based" memes: subversive speculations

In crypto, it is exceedingly common to hear people talk about the moment in which Bitcoin or Ethereum, or crypto more generally, finally made sense to them—the moment things clicked. One crypto investor I interviewed, for example, told me that he had gotten into crypto relatively recently, but that he had been "very deep into the rabbit hole" since; another investor told me it took him "two years to go down the rabbit hole" and when he did, "I looked into the cryptography…I started studying about the history of money…my takeaway is that it's unbelievable [given] what we know of the traditional financial system…It's revolutionising." Crypto people invoke their journeys "down the rabbit hole" to describe both crypto's ability to fascinate and capture the attention of its enthusiasts, but also to describe the way that crypto initiated a dizzying awakening to a layer of reality that had previously been hidden to them. Usually, this starts with a realisation that is related to the socially constructed nature of money, and sometimes, it spirals from there. There is perhaps a parallel between these experiences and what Lepselter describes in her ethnography of American UFO experiencers as a feeling of resonance. "Resonance," she explains, is something that strikes a chord, that inexplicably rings true, a sound whose notes are prolonged. It is just-glimpsed connections and hidden structures that are felt to shimmer below the surface of things" (2016: 4).

Another way that crypto people describe their encounters with these glimmers of reality is via a meme that references the film, *The Matrix.* "Red pill" memes posit that there is a choice between discovering the truth about the world and remaining unaware of it. Taking the red pill signifies

choosing to confront the truth, while taking the blue pill signifies choosing to remain blissfully in the dark. Figure 7, which makes use of a scene from *The Matrix* and has been widely circulated within crypto, suggests that Bitcoin is not worth selling, no matter how high its price climbs. Ultimately, the meme implies, fiat money is a worthless ruse that could never rival the value of Bitcoin, no matter the quantity offered for it. In crypto, Bitcoin is often referred to as the "orange pill" because of its orange branding and to suggest that it provides a means of unplugging—to use the terminology *The Matrix*—from the traditional financial system which, it is implied, has made "slaves" of us all. This is a continuation of the theme of "opting out"—the idea that crypto provides an escape hatch—which is also featured in chapter three. This "right to exit" is considered critical in crypto, first because it represents the polar opposite of state fiat money, which crypto people see as coercive due to the way it entangles citizens in debt and supports America's expansionist aims. Second, it embraces the Hayekian idea that allowing private forms of money to compete with each other is more likely to produce quality money than in situations where governments and banks have a monopoly on the creation of money. This competition cannot be achieved if there is coercion—people must be allowed to freely choose between currencies as and when they wish. Red pill memes, therefore, are not just about unplugging from the financial system, but about waking up to its coercion and corruption while taking steps to withdraw one's participation .

Figure 7 A Bitcoin meme remixed from the film, The Matrix (Gill 2014)

Red pill memes are not unique to crypto, but belong to a broader category of internet memes described as "based"—a term that originated with the rapper Based God but, as one interlocutor explained, now denotes an ability to see "the truth"— even when to do so risks clashing with prevailing opinions or expectations of propriety or acceptability. It is in this category that crypto memes containing symbols like Pepe the Frog—and a host of other characters that have emanated from 4chan—belong. The incorporation of these characters into memes does not signal adherence to right-wing ideology, but rather that crypto people are "red pilled"—that they are "awake" to the matrix—the reality that is hidden—and that they maintain a critical distance from prevailing norms and trends. This is, in short, a means of signalling speculative subversion rather than affinity to any particular political orientation. The use of Pepe the Frog in crypto memes, therefore, perhaps is an example of what Fernandez describes as a "latent factor" in metaphors— the idea that a comparison is "made in relation to a third term" (1974: 130). In other words, the inclusion of Pepe in crypto memes does not evoke a comparison between crypto memes and pro-Trump memes, but rather between the subversive effects of both genres of memes. Attending to this latent aspect "involved in associations," Fernandez argues, "leads in the same direction as… the recognition that a metaphoric predication is a hypothesis about the world or a part of it that responds to a specific intention or plan" (ibid: 131).

Based memes can also act as a more explicit visual instantiation of crypto people's theories about the nature of the world—specifically, their social constructionism. They suggest, as exemplified in the meme below, that crypto people are (somewhat uniquely) awake to the tricks and techniques that contribute to the naturalisation of social institutions such as money. Figure 8,

Figure 8 A Bitcoin meme which refers to Plato's allegory of the cave (Unknown 2020b)
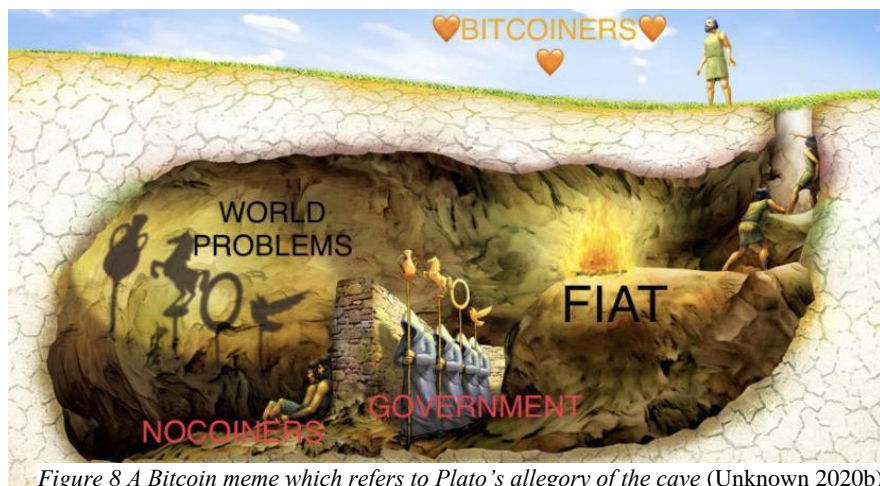
for example, references Plato's allegory of the cave to suggest that the world's "problems" are not actually real, but instead are misrepresentations—distortions of reality. However, "nocoiners"—people who do not own any crypto—are unable to distinguish between representation and reality—they cannot see the cause of the shadows. The light which is the source of these distortions comes from the fire that is behind them—fiat money. The light the fire throws off is, in turn, manipulated by the government, whose puppets cast shadows upon the wall. In the back of the cave, we see Bitcoiners making their way out to the surface—literally into the light—and into the "real" world. They have escaped the deceptions of the government which are fuelled by fiat money.

This meme visually mirrors much of what I described in chapter four. It visually links money, power, representation, and performance. Likewise, it posits a causal relation between fiat money and government "lies" and suggests that Bitcoiners are immune to these misrepresentations— they have crawled out of this den of deception and have reached the light. Memes like this one are a key part of crypto people's speculative labours and strategies for accumulating generational wealth. As one interlocutor explained, "people always talk about crypto as a rabbit hole, a paradigm shifting thing, and the red pill memes. These all have a powerful effect of creating hype." Here hype is shorthand for the persuasive discourse *about* value that, as I claimed in chapter four, crypto people see as actually *creating* value. Memes provide a visual medium for this hype that is readily distributable, helping to mobilise the collective belief that is necessary for performatively realising value. This is arguably the generative capacity of memes that I referenced with the anecdote that opened this chapter. The ability of memes to bring belief into existence can generate not just values, but also the products and structures to support it—such as the community governance process mentioned in the opening anecdote.

It is also notable that these memes provide "a symbolic 'commentary' on technical strategies in production, reproduction, and psychological manipulation"—this commentary, Gell argues, is what magic consists of (Gell 1988: 8). Gell makes an intriguing connection between magic and play that seems particularly relevant for this analysis. He notes that children "provide a continuous stream of commentary on their own behaviour" when they play, which has the effect of situating what they are doing while shaping the way their imaginative play unfolds. This also

furnishes "a means of internalising it and recalling it, as well as raw materials for subsequent exercises in innovation and recombination" (ibid: 8). Children's commentary during play, Gell suggests, is strikingly similar to "the format of spells" and "the relation between reality and commentary in play and in magic-making remain essentially akin; since the play-commentary invariably idealises the situation, going beyond the frontiers of the merely real" (ibid). Some crypto memes offer a comparable type of commentary—sometimes with words, sometimes with images, but often with both. This commentary similarly narrates what is happening in crypto— what it is doing—and idealises it in a way that establishes a goal to which the community's work can be directed—such as making fiat currency obsolete (ibid). This is not about summoning a utopian and ultimately unrealisable future. Rather, it is about setting an "ideal standard" toward which crypto people's technical efforts can be directed (ibid).

In this way crypto memes are spell-like. A spell, Gell suggests, "does little more than identify the activity which is being engaged in and defines a criterion for 'success' in it" (ibid). Consider, for example, the way that the Bitcoin cave meme comments on the differences between nocoiners and Bitcoiners and suggests that, by escaping fiat currency, they can similarly escape the consequences of the government's misrepresentations. Alternatively, recall how the *Matrix* meme suggests that it will one day be unthinkable to sell Bitcoin for fiat currency—even for millions. Additionally, a related and common verbal meme—"the dollar is going to zero"— represents an ideal and is often said in a way that has the quality of an incantation. Though these memes are oriented especially toward describing the ideal, others that appear later in this chapter offer more of the step-by-step commentary that is reminiscent of the child's play to which Gell links magic.

Crypto memes also feature in the community's efforts to forge alternative modes of knowledge production that do not revolve around, or depend upon, traditional financial experts or technocrats. Instead, financial knowledge is sourced from TikTok videos, Telegram chats, Discord channels, Reddit posts, guides published by blockchain projects, and tweets invariably disclaimed as "not financial advice" (NFA). Crypto memes circulate and critique the financial knowledge garnered from these sources while juxtaposing it with traditional approaches to financial advice, education, and the economy—the validity and profitability of which are called

Figure 9 Money printer go BRRR meme (Institute for Memetic Research & Development 2020b)

into question. Some of these memes comment on macro-level economics, such as Figure 9. This meme was widely disseminated on crypto Twitter during the early days of the pandemic after the Federal Reserve announced that it intended to engage in massive amounts of quantitative easing. The Fed is represented by a suited Pink Wojak character who is furiously printing dollars as bloody tears run down his anguished face. To the left of him is a chart that shows the price of bitcoin (denominated in U.S. dollars) climbing, implying that the central bank's decision to engage in quantitative easing has caused concerned investors to flee to bitcoin. The creators of this particular version of this meme also produced a game, titled "The Fed," in which users could play the chair of the central bank whose job, the game's description explained, was to "inflate the U.S. dollar uncontrollably by printing money like nobody's business" (Institute for Memetic Research & Development 2020a). As the meme gained ground

on crypto Twitter, crypto people changed their Twitter usernames to incorporate "brrrrr." This created a spectacle which implied that these users were "in" on an inside joke and signalled disapproval of the central bank's policy—they predicted what, to them, was the inevitable outcome of the Federal Reserve's tactics: inflation. This summoning and clarifying of the future was aimed at directing capital into bitcoin in the present, consequently sustaining a key source of generational wealth.

As in other contexts, memes as a technology of enchantment or imagination are wielded by "exemplary figures" (Bear 2015b, 2020)—namely talking heads on Twitter—that aim to achieve what Leins calls "narrative authority—that is the ability to come up with narratives that are accepted by other market participants as expert knowledge" (2022: 360). However, these figures are liable (and likely) to be labelled as "shills" whose performative authority is called into question due to their notoriety for spinning up narratives or sometimes due to suspicions that they are being paid by projects behind the scenes to tweet favourable commentary. Narrative authority in crypto, therefore, is more often attributed to the crowd and the memes which are perceived as most powerful are those which are thought to have been organically created by the community rather than any one individual. Here, the mystery of the production and reproduction of memes is again associated with their ability to enchant—and likewise this is associated with the creation of realisable value.

The usage of memes to circulate financial advice and education also contributes to the establishment of investing as a social, group activity—something that has been central in the community's efforts to accumulate generational wealth. Though the wealth accumulated may be directed toward individualistic ends, the accumulation of this wealth is often portrayed as a collective activity—due in part to the causal relationship that crypto people perceive between collective belief and value. This is an explicit recognition that community members constitute the "raw material" out of which capital is "generated" (Weiss 2018: 456). At times, this is acknowledged in memes with a wry cynicism. Consider, for example, Figure 10, which portrays a group of Bitcoiners encouraging a fellow investor to "hodl"—a corruption of hold—his bitcoins through a bear market rather than sell them. Each member of the group is portrayed as a "brainlet"—someone who is unintelligent ("Brainlet" 2017).

Figure 10 Just hodl meme (Unknown 2021b)

As excretions drip from their eyes, noses, and mouths, they try to reassure the investor that all will be well. They imply that bitcoin's price drop simply indicates that "we're shakin' out the weak hands"—meaning, the investors who lack conviction in their investment and the courage to hold through periods of volatility are selling their bitcoin. This is often portrayed as a good thing within the crypto community because it redistributes the ownership of bitcoin and does away with investors who are prone to panic-selling and who thus negatively impact the price of the asset during these periods of volatility.

Other members of the group reassure the investor by predicting that "institutional money"—money from institutional investors in traditional finance—will shortly flow into crypto and push up the price of bitcoin as a result. "Lambo soon" is a reference to another meme in which successful crypto investors purchase Lamborghinis with their profits; this is similarly a vote of confidence that the price is bound to increase. Meanwhile, "down in USD but up in satoshis" implies that the investor's investment is only "down" if valued in U.S. dollars; when valued in terms of bitcoin—whose smallest unit is called satoshis—the investor is still "up." "Buy the dip" is a slang phrase which denotes the purchase of bitcoin (or other crypto assets) when the price is down—the implication being that, in the long run, the price will only go up and this will therefore be a profitable choice. All of these statements are at once reassurances and performances—incantations that are recited in hopes of convincing the investor that they are true and, therefore, with the intention of shaping his behaviour. In sum, the meme seeks to reveal the

strategies—the technologies of enchantment—that are deployed by Bitcoiners to keep capital invested in bitcoin as brainless and points to a herd mentality. This is a moment of cynical disclosure, but it isn't necessarily intended to dissuade the viewer from accepting these strategies—most crypto people, I found, do actually buy into at least some of them. Rather it simply holds up a mirror to them. In this way it is characteristic of the dynamics of revelation (accompanied with acts of concealment) described in the previous chapter which bolster the performative magic of crypto's strategies of accumulation.

Other memes acknowledge that investing in crypto relies on the collective efforts of the community and others with less cynicism. For example, elsewhere in this thesis, I mentioned that crypto people sometimes described "apeing" into investments. This meant that they bought (usually Ethereum-based tokens) with little knowledge about the issuing project and largely to avoid a feeling of FOMO (fear of missing out) because everyone else was doing it. This phrase—apeing in—was derived from a meme that emerged from the film, *Rise of the Planet of the Apes.* What it conveys, one interlocutor explained, is that one ape is weak, more apes are strong. In other words, apeing into a possibly questionable token investment as a solo investor would be riskier—or at least significantly less fun—than doing so as part of a group, even if it involves a certain suspension of reason. Unlike Weiss' interlocutors, described in the article cited above, who are made to accept the financial system's exploitation of them by the financial planners who advise them, crypto people embrace the idea of being the "raw material" (2018: 456) which provides the basis for their speculative accumulations—so long as they are the ones doing the exploiting.

Some of my interlocutors also suggested that practices of investing "together" and the formation of social communities around investing represented a generational shift. These practices were thus assimilated into the framework of intergenerational conflict that I described in chapter three. "In older generations, you don't openly talk about money with people," one person explained. "The idea of being in an online community like crypto or like Wall Street Bets mixes finance with social aspects. Everyone [in our generation] grew up on the internet and people who play games are used to digital finance. But [what is happening now] feels more interesting and social—almost like creating a new world [or] almost like a form of empowerment."

The dissemination of financial information and commentary that takes place in this context, therefore, was not so much associated with the financialisation of the social as with the socialisation of finance. Memes, as persuasive devices that also help to establish shared meanings amongst community members, did not only help to conjure up a parallel world, about which secrets could be disclosed and from which profit could be gained. They also had the effect of creating a new world entirely—the crypto community—where investing together provides an empowering way to beat the system. Likewise, to this crypto person, memes were "so important for people to grasp complex concepts." In simplifying, or adding humour to, financial commentary or technical information, she saw memes as something that could help crypto achieve its ideal of mainstream adoption—something that would require the "enchantment" of far greater numbers of people.

Social evaluations and imaginings

Memes also make visible the evaluations of social differences that always "permeate acts of speculation" (Bear 2020: 8). These evaluations often invoke gendered differences, but equally, they frequently centre on the differences between crypto and its others—regulators, for example, or even gold bugs, as demonstrated by Figures 11 and 12.

Figure 11 Investor protection meme ("You're here to protect the investors, right Gary?" 2022)

Figure 11, remixed from a still in a *Star Wars* film, suggests that Gary Gensler, the chairman of the United States Securities and Exchange Commission (SEC) is hiding behind the SEC mandate of investor protection. His motives, it implies, are actually more nefarious. The meme, therefore, is used to cast doubt on what interests investor protection actually safeguards and, by implication, questions whether investor protection-oriented critiques of crypto are valid. Figure 12 portrays a drowning gold bug who reaches his hand above the surface of the water in a plea for help. A Bitcoiner's hand appears in the next square, seemingly prepared to lift the gold bug out of the water. However, it is subsequently clear that the Bitcoiner is actually attempting to high-five the gold bug, rather than save him or her. "Have fun staying poor," the Bitcoiner tells the gold bug as their hands meet. In the final square, the hand of the gold bug is shown disappearing into the water. This meme provides cutting commentary on gold bug's investment decisions. It suggests that Bitcoin is superior to gold and that, unless gold bugs come to terms with this, they will figuratively "drown" in their unfortunate choices and will remain "poor." The meme therefore suggests that Bitcoiners have triumphed over the gold bugs, and represents a moment of self-congratulation.

Figure 12 Bitcoiners vs gold bugs meme (Bitcoiners/Gold Bugs 2020)

Likewise, memes are also used to represent differences within the crypto community—those qualities which are thought to distinguish individual sub-communities from one another. Consider, for example, Figure 13 which creates a comparison between Bitcoin (on the left) and Ethereum (on the right) and suggests the superiority of the latter.

This meme specifically references activities in Ethereum's decentralised finance (DeFi) community during a time in which it was creating spectacular returns (and sometimes losses) for investors. On the left, a zombie-like Bitcoiner is shown with blood-stained eyes and tears running down his pale cheeks as he crawls around on the ground. The squiggly lines above him appear to imply that he is rotting; he is also surrounded by flies. The meme suggests that Austrian economics—which is popular within the Bitcoin community—and the notion of "sound money" have not produced the returns that DeFi has.

Figure 13 Bitcoin vs DeFi meme (Unknown 2020a)

Bitcoin is up only 0.38% compared to the 20000% APY that DeFi investors are realising on their tokens. "Hodl"—the incitement to hold rather than sell—is represented as a fruitless endeavour. "100k soon" refers to Bitcoiners' predictions that bitcoin's price will soon reach $100,000—a further reason, they say, to hodl. On the right, Ethereum is represented as Pepe the Frog, who appears as a floating priest or god. He extends his hand to the Bitcoiner, as if to offer to absolve him from his misery by showing him the way to Ethereum. The meme makes a variety of references to DeFi. Its association with scams is referenced by the "30x scams" and "listing pumps"—which refer to the pumping of tokens as soon as they are listed on exchanges; this is often followed by a dump of the tokens. "Fresh hype daily" references the emergence of new "narratives" about DeFi, DeFi projects, and their potential, while "buybacks" refers to some DeFi projects' practice of buying back tokens from investors, usually in order to "burn" or

destroy them with a view to decreasing the overall token supply and increasing the price per token. The meme also references "crypto stimulus"—an allusion to the stimulus checks that Americans received during the COVID-19 pandemic. Crypto people saw these cash infusions as fuelling speculative activity in DeFi at the time. In short, this meme aims to compare and contrast the Bitcoin and Ethereum communities. Despite Bitcoiners' consternation at the "scammy activity" on Ethereum, the meme implies that they are missing out on significant profits due to their practices and ideology.

A variety of memes circulated around this time also visually evaluate the differences between investors. Consider Figure 14, which compares and contrasts "virgin DeFi analysts" with "chad DeFi degens." Degens is short for degenerates, the name DeFi investors gave to themselves at the time to describe the risky nature of their investments. This name was at once a joke and a morally tinged acknowledgement that speculation was an activity that threatened to discredit crypto and to jeopardise its long-term reproduction (as is described in chapter two).
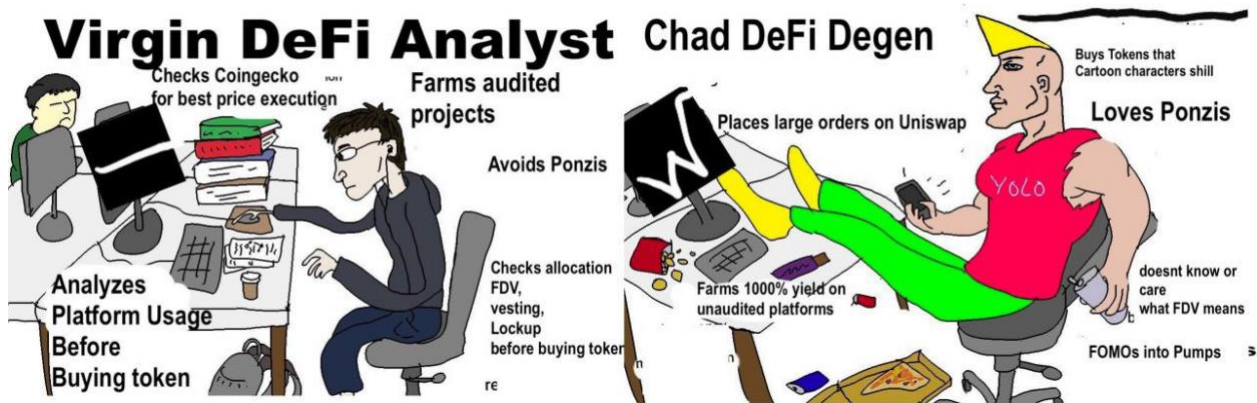
Figure 14 Virgin DeFi analyst vs Chad "degen" meme (Unknown 2020a)

On the left, the virgin DeFi analyst is represented via a virgin character—a recurring character in memes that is used here to denote a lack of investing confidence and an unwillingness to take risks. The virgin is thin and pale; his spindly arms are particularly exaggerated and notably contrast with the strength of the "chad" he is compared to. A grey backpack sits under his desk, mirroring the dull colours of his clothing. The meme implies that the virgin researches his investments prior to buying tokens, particularly assessing the tokenomics—the fully diluted

value (FDV) of the token supply as well as any vesting and lockup arrangements which place limits on token disposability. This contrasts with the degen chads who simply "ape in" to these investments with little fear of the consequences and with virtually no knowledge of the tokenomics which, here, are analogous to "fundamentals" in traditional investing. Similarly, the virgin checks Coingecko, a site that provides data and rankings of cryptocurrencies and tokens, to determine which crypto exchange offers the best token price. The flat line on his computer screen represents his portfolio which has no volatility and, therefore, no upside.

Rendered in contrast to the hunched-over, glasses-wearing virgin is the "chad DeFi degen"— represented by a "chad" character, which is used in memes to typify and parody masculinity and to represent men who are able to attract women as sexual partners. The chad has his feet carelessly thrown up atop his desk. His exuberance is captured in the practically neon colours he is attired in; his top is typical of a t-shirt whose sleeves have been cut off—the sort of thing one might wear to the gym. He reclines in his chair as his phone vibrates in one hand and, in the other, he carelessly grasps a beverage. A pizza box with a single slice can be seen on the floor below him, and other objects are strewn about his room and on his desk. He is surrounded by a variety of text strings that describe his actions. "Loves ponzis" implies that he knowingly buys into scam tokens while "FOMOs into pumps" implies that he joins pump and dumps for fear of missing out on gains. His placement of large orders on Uniswap means that, unlike the virgin, he is not checking Coingecko to see where he can best execute his trade. He also risks attracting front-runners with his transaction, but does not care. The meme claims that he "farms 100% yield" on unaudited DeFi platforms, meaning he invests in platforms which promise to produce substantial amounts of interest on his tokens, but whose code has not been audited and therefore may contain bugs or be susceptible to hacks. The implication is that he might lose his investment, but that he proceeds without caution nonetheless. The line on his computer screen shows the ups and downs of his investments—but importantly, the line trends dramatically upward.

In sum, the meme both glorifies and parodies the risky investing strategies of the DeFi degens through gendered imagery that contrasts virility with a lack thereof. The degen, it implies, stands to make huge gains, but also to experience huge losses. His investing strategies are revealed as

producing spectacular returns, but also as embodying the kind of short-term speculation that threatens to undermine crypto and to swallow its larger goals. As is so often the case in crypto, the meme embodies an ambivalence about the kinds of activities that take place in the community. The visual portrayal of these activities has the effect of revealing them. However, this portrayal effectively shrouds these activities in humour just after the moment of revelation. As in chapter four, this is the scamminess of crypto revealed for all to see—yet, the effect, for those in the community at least, is not to make to activity repugnant, but funny; it is to be reminded of the dangers and benefits of speculation without taking either too seriously.

III.   Conclusion: "money is a meme"

This chapter opened with the suggestion that memes have a generative quality and that they can be analysed as art objects which contribute to the technology of enchantment—that system which underwrites social reproduction by persuading people of its necessity and inevitability (Gell 1992). Memes, I argued, are key tools in crypto people's efforts to reveal power, value, and society more generally as socially constructed. Existing analyses of crypto memes, however, have suggested that they exhibit an affinity with right-wing politics. Through an examination of the Great Meme War, I suggested a different reading of crypto memes. Though they may utilise some of the same symbols and characters as those memes associated with the alt-right, what crypto memes have in common with pro-Trump memes is first, that they are seen as embodying agency, and second, that they create a spectacle of secrecy and disclosure.

I applied these insights to analyse three types of crypto memes. First, I examined "based memes," which aim to reveal the hidden forces that shape society. These, I suggested, are key to distributing the social constructionist ideology that is the foundation of crypto people's performative theory of value. Likewise, I identified a spell-like quality in these memes in the way that they narrate what is happening and crypto and establish magical ideals to which the community can aspire.

Next, I examined memes that convey financial commentary and strategies of accumulation. These memes critique and call into question traditional financial knowledge while also rendering

investing a social, collective activity. This is key to creating the collective belief that crypto people see as sustaining their strategies of accumulation. Finally, I explored several memes which contain social evaluations, some of which make comparisons between crypto and its "others" and some of which make comparisons between crypto people and crypto sub-communities. The latter, I showed, provided ambivalent reflections on speculative activity taking place on decentralised finance (DeFi) platforms. The former, I suggested, casts doubt on the authority and motives of regulators and the investing prowess of gold bugs.

To conclude this chapter, I would like to briefly return to Figure 6—the drawing from my interlocutor that I included at the start. The drawing suggested that there exists a circular relationship between memes and money—memes create money and money creates memes. What does this mean? Throughout this chapter, I have suggested that crypto people perceive a generative quality in memes—they are directly implicated in the construction of value. This point is also summarised by a common claim in crypto: "all money is a meme." The slippage between these two categories is perhaps not surprising. Just as memes appear as embodiments of agency, so does money. Likewise, just as memes become successful under opaque circumstances which involve the efforts and buy-in of a range of seemingly faceless individuals, so does money. And just as memes spawn more memes, money makes more money—it is "credited with a life-like power" (Bloch and Parry 1989: 6). I am not suggesting that, in fact, money and memes really *are* the same—and I'm not sure that my interlocutors are either. What they are perhaps suggesting is that the same kind of magic that is involved in the creation of money is involved in the creation of memes—and therefore, it can be sympathetically exploited for accumulative ends. Memes visually embody the narratives—the speculative labours—that mobilise the collective belief which crypto people see as creating the value of money. To say that money is a meme is perhaps a way of saying that memes are what animate capital— especially crypto capital. The acknowledgement of the generative capacity of memes, therefore, provides an epistemological foundation for crypto's accumulative strategies—a kind of answer to the problem of infinite regress that inevitably results from the notion that value is a function of collective belief. What, then, is their reply? It's memes all the way down.

CONCLUSION:
"We're all gonna make it"

By the final weeks of my fieldwork in 2021, Covid-related restrictions on gatherings had started to ease in New York, and the city's crypto community began to gather offline once again. On my last night of fieldwork, I ventured across the city to the opening of a crypto company's co-working space in Dumbo, a trendy neighbourhood in Brooklyn that is home to a variety of tech start-ups. I arrived in the pouring rain and jogged hastily up to the door of the large former industrial building which held the co-working space. I found a man dressed all in black, clutching a guest list in one hand and an umbrella in the other, who directed me to the third floor.

I stepped out of the elevator into a buzzing, open-plan office, and after grabbing a drink, I wandered around and caught up with a friend in one of the space's fishbowl-like, glass-walled meeting rooms. Later, I mingled, chatting to several people I had not previously met—a graduate student in business, a tech worker who had recently relocated from San Francisco, and a woman who described herself as being "in TradFi" but offered reassurance that she was "a big fan of blockchain technology." As I was preparing to leave the party, a young man approached the group of friends with which I was speaking. He introduced himself and I soon learned he was a programmer. Mostly, he had done "Solidity stuff," he told me, referring to the programming language Ethereum is written in—but he had recently shifted to Rust, another programming language, in order to work on Solana, one of the Ethereum-killers. As he was speaking, I couldn't help but notice the baseball cap atop his head. It was, I quickly realised, embroidered with "WAGMI"—an acronym for "we're all gonna make it."

WAGMI, and its sister-acronym NGMI ("not gonna make it"), started making the rounds on crypto Twitter toward the end of my field research—they were part of a growing body of new crypto slang that had emerged out of that year's bull market. Both often served as pithy, humorous replies to tweets. NGMI was used to cast doubt or express scepticism about the viability of crypto projects and the prospects of individuals' decisions—investing-related or otherwise. In contrast, WAGMI was an irony-tinged expression of optimism—a conviction that, together, crypto people really might survive and prosper. It was this sense of optimism, shared

among the crypto people I met, that has, to me, always been one of the community's most striking features. This is not to say that there is no pessimism or cynicism amongst its ranks— this too exists. Nonetheless, crypto people stand out for their hopefulness—something which seems to arise from the "can-do" approach they take, not just to imagining, but also to actually building solutions to the problems they see as plaguing the financial system.

Crypto's critique of American economic governance

These problems—financial insecurity, downward mobility, uneven access to investing opportunities, and a lack of input into economic governance—are not just the result of the 2008 financial crisis—though this calamitous event no doubt exacerbated them. Rather, in chapter one, I traced an extended historical trajectory through the decades of American history, starting with the nineteenth century—the last forty years of which witnessed passionate debates amongst citizens about the future of the nation's monetary standard and economic governance. In the boldness of the aspirations of that era's monetary reformers and in the content of their concerns, I recognised a kindred spirit to contemporary crypto communities. The downfall of these reformers in the final years of the nineteenth century, I suggested, laid the groundwork for the creation of the Federal Reserve and the diminishing role that Americans have played in the nation's economic governance ever since. Despite Americans' lack of influence over their financial system and currency, the rise of the crypto community has demonstrated that many citizens have not lost their appetite for engaging with these issues. On the contrary, crypto people have a sophisticated understanding of the blow America's deficit spending has dealt to what remained of popular influence over government expenditure. Likewise, they recognise the distributive implications of financial regulations put in place by unelected regulators as well as the quantitative easing undertaken by independent central bankers. Facing downward mobility in the midst of stagnating wages, rent-seeking financial institutions, and increasing levels of consumer debt, crypto people have taken matters into their own hands and have sought to create an "escape hatch" from the mainstream financial system. They see this system as coercive, corrupt, and unable to furnish the generational wealth that sustains long-term processes of social reproduction. This view permeates their discourse, their innovations, and even their memes.

In placing crypto people's grievances in historical perspective, this thesis has sought to counter the notion that these are simply frivolous or marginal gripes. At the core of crypto's grievances, I have argued, are questions about the relationship between the economy and democratic society that have pressing implications for America and beyond. Among these are questions concerning if and how America can reconcile its commitments to democratic representation with the power that unelected officials wield in shaping the nation's economic landscape. As chapter three demonstrates, crypto people see deficit spending and quantitative easing as underhanded mechanisms of redistribution which devalue the dollar and contribute to America's imperialist aims—all without the consent of citizens. Likewise, chapter three emphasises that unelected officials' policies involve evaluations of social differences based on class, race, and gender (Bear 2020) which have resulted in an uneven distribution of the fruits of America's financial system. It highlighted crypto people's critiques of securities regulations which purport to protect retail investors who allegedly lack the sophistication and rationality to avoid investment losses. Yet, I suggested that the efficacy of disclosure-based investor protection policies is dubious at best. Rather, the accredited investor standard is characteristic of other policies of financial exclusion—such as redlining—that have marred America's history.

Another question that this thesis raises, therefore, is about the kinds of considerations that should influence policies of redistribution in the United States. Should race- or class-based inequality be factored in? Or should traditional liberal notions of fairness and justice hold sway? As chapters two and three show, crypto people have designed their own infrastructures with these questions in mind. I have suggested that their blockchain-based systems reject the traditional economy's policies of exclusion—indeed, crypto people see their creations as technologies of financial *inclusion*. More specifically, Bitcoin and Ethereum seek to break with the social hierarchies that are endemic to the mainstream economy in favour of prioritising openness, permissionlessness, and censorship-resistance. Likewise, they emphasise Rawlsian ideas of justice and fairness over notions of equality which encompass corrective measures, such as affirmative action. The way that such programs prioritise providing access or resources to some groups over others in order to address disparities between them is unpalatable to crypto people. These ideas of justice and fairness become especially visible in disputes over how crypto property ought to be allocated. As demonstrated in my account of the "fair launches" of DeFi-related tokens that became popular

during my fieldwork, crypto people emphasise that token issuers should avoid creating asymmetries between holders by ensuring that no one has an advantage over anyone else in obtaining the tokens. This is characteristic of their preference for notions of fairness and justice that foreground equality of opportunity rather than equality of outcome.

In short, this thesis has demonstrated that crypto people have reframed economic governance as a political, moral, and ethical practice (Bear 2015a) that is ripe for challenging. They are attuned to the social relations that are produced by existing governance practices—relations of extraction, coercion, domination, discrimination, and ultimately—as chapters four and five sought to show—deceit. Armed with code, they have attempted to rewrite the rules of the financial relations and infrastructures that tower over our lives. The alternative economic ecosystem that crypto people are building is, despite its basis in technology, very much an experiment in the "human economy" (Hart et al. 2010). It is a place in which the economy is questioned, rethought—rebuilt, even—every day, and where the notion that the economy could be a place for "human emancipation" is taken quite seriously by many of the community's members (ibid: 6). This is not to say that crypto and its community are without flaws or struggles—these too are documented in the pages of this thesis. From scams and hacks to the challenges of managing unwieldy speculators, the crypto community's economic experiments have not always been successful.

Labours of speculation, strategies of accumulation

This thesis has also documented crypto people's attempts to create and accumulate generational wealth. This is wealth that can do more than just sustain basic needs—wealth that is seen as contributing to long-term social reproduction. In comparing the realities of their lives to the financial stability enjoyed by their parents' generation, many of my interlocutors felt they had been short-changed; their financial futures were far from secure and the prospect of buying a home, for example, seemed remote to many. Unable to secure wealth through traditional financial means, they turned to crypto instead. However, crypto has also become entangled in intergenerational conflicts over the principles and logics that ought to govern the economy. Its rejection of the prevailing logics of authority and distribution has resulted in confrontations with

regulators and critics who regard crypto as "unsanctioned wealth" (Roitman 2005) and who, as a result, have tried to severely restrict its accumulative activities. In the process, these critics have portrayed crypto people as reckless gamblers and scammers who imperil retail investors with their lawless tactics and unbridled speculation, which, one day, may even threaten the economy writ large.

This thesis has pushed back against these portrayals in a variety of ways. For one, it has offered a far more complex portrayal of crypto people and the structural reasons for which they engage in what critics see as risky behaviour. Likewise, it has offered a similarly nuanced view of speculation in crypto. As in so many other societies, it has been a challenge in crypto to achieve a balance between short-term exchanges centred on profit and long-term, morally-charged exchanges centred on the creation of wealth that fuels social reproduction (Bloch and Parry 1989) has been a challenge in crypto. As chapter two demonstrated, crypto people do not regard the generation of profit as irreconcilable with their wider goals; on the contrary, making a profit is considered legitimate and important. Nonetheless, they see the speculative activity that generates these profits as a double-edged sword that must be wielded with care in order to ensure that it does not unduly subordinate crypto's resources to short-term gains, thus threatening its larger aims of building out its alternative economic ecosystem. As a result, speculators, I showed, must be converted into community members. To achieve these conversions, crypto people deploy various mechanisms and incentives with the intention of shaping the behaviour of investors. These devices amount to "technologies of imagination" (Bear 2015b)—they are the means through which crypto people aim to "hack" human nature—revealing the patterns of behaviour that guide our choices with a view, first, to anticipating these, and second, to redirecting them toward desirable ends.

Yet these devices and incentives are far from the only technologies of imagination that crypto people call upon. As chapters four and five revealed, crypto people's social constructionist views also amount to a technology of imagination. Through its acts of disclosure, social constructionism gets at the *really real* aspects of value, power, and the contours of social institutions more generally. Social constructionism has played a critical role in crypto people's attempts to seize the means of speculation—they utilise it to uncover and exploit the tricks and

techniques (Taussig 2016) which contribute to the naturalisation of social institutions such as money. What are these tricks and techniques? I identified performativity as a trick that crypto people recognise as salient in the traditional economy and which they have tried to harness as a technique to further their own accumulative ends. This should not be read as an endorsement of performativity—as I argued, crypto people identify this modality of power and value-creation as fundamentally scammy—but as an exploitation of it.

With this in mind, I followed Bear (2015b, 2020) in turning to the anthropological literature on magic to analyse this exploitation of performativity as an instance of mimesis—a case of sympathetic magic (Taussig 1993) that is bolstered by acts of revelation and concealment (Taussig 2016). Indeed, by the end of the thesis, magic emerged both as a recurring trope in the crypto community's discourses and practices and as a useful analytical device through which to understand them. From magic internet money to meme magic, this thesis demonstrates that crypto people are not simply interested in the tricks and techniques that contribute to the naturalisation of social institutions, but also in their enchanting effects. As with magic, at the heart of crypto's speculative labours is a concern with the strategies that produce and reproduce the social order and that secure the enduring assent of those who live within the conditions of that order (Gell 1988). In memes, for instance, crypto people recognise a powerful medium for the visual portrayal and circulation of their speculative labours that is critical for the mobilisation of the collective belief they see as generating value. Memes are at once an enchanted technology and a technology of enchantment (Gell 1992).

In short, this thesis demonstrates that speculation is activity that encompasses but also exceeds profit or gain. In crypto, acts and strategies of speculation express a hypothesis about the world as it *really is*. The sometimes spectacular accumulation of wealth that can result from the deployment of such hypotheses has the effect of validating them—reinforcing their hidden truths. Additionally, crypto people recognise that speculation has become a key means of accumulating wealth in the contemporary economy. For this reason, they have sought to seize the means of speculation themselves, and it is through a variety of technologies of imagination that they have created new vistas of accumulation in which their search for generational wealth unfolds.

Bitcoin and Ethereum: the politics of the social layer

Though this thesis has often spoken of "the crypto community," it has not treated that community as a monolith. Instead, it has sought to portray Bitcoin and Ethereum as two communities with related yet separate visions of blockchain-based economic freedom. Whereas Bitcoin has largely been concerned with the creation of a decentralised alternative to fiat currency, Ethereum has experimented with a range of decentralised applications (dapps), including social tokens and decentralised finance (DeFi) platforms. Bitcoin and Ethereum, I have argued, are very much in dialogue with each other as well as the outside world; this has contributed to the vibrant polyvocality of crypto's "social layer"—something which is often underestimated. Relatedly, this thesis has sought to counter claims that Bitcoin and Ethereum represent utopian projects. In emphasising their political engagement, this thesis has treated them, instead, as financial reformers and has sought to take their aspirations and notions of the public good seriously.

Chapter two documented the fragmented and dynamic nature of the community's evolution and suggested that Bitcoin and Ethereum constitute the main axis of difference within the wider crypto community—difference which is expressed through the dual idioms of decentralisation and speculation. These idioms are respectively concerned with the connection between property, power, and production and the short- and long-term orders of exchange; both greatly shape the development and governance of both communities' infrastructures as well as their thinking about the mainstream economy. Evaluations of the differences between the two communities are salient in memes, which are often used to juxtapose the two and constitute a visual representation of the communities' dialogical relations. Additionally, this thesis has also contributed an account of Bitcoin and Ethereum which moves beyond money and infrastructure. In chapter two, for example, my account centred on the various types of crypto property that have emerged over the years and the relations that are mediated by these categories of property.

Throughout this thesis, I have tried to convey that Bitcoin and Ethereum's blockchain-based solutions to the doldrums of the American financial system are deeply social technologies. As a technology that codifies "relational work" (Zelizer 2012) in its code, the blockchain must be

regarded as the product of social and political reflections—not something that disintermediates them. Keeping this relational work in mind helps to illuminate the separate visions of financial inclusion that are promoted by the Bitcoin and Ethereum communities, which are described in chapter three. For Bitcoiners, Bitcoin represents a means of rejecting the coercive, non-consensual social relationships that form the basis of U.S. monetary policy. Bitcoin's fixed supply represents a rebuke of the monetary expansion that they see as both illegitimate and as designed to further American imperialism. The Ethereum community's vision of financial inclusion has been shaped by their encounters with securities regulators and is largely concerned with the expansion of access to investing and speculation.

Likewise, this thesis' attention to the relational work of the blockchain, especially the way it has been designed as a reaction against traditional financial infrastructures, has laid the groundwork for its interventions on crypto's philosophies of money and value. Chapter four revisited Maurer et al. (2013) and Dodd's (2018) contention that Bitcoiners subscribe to a digital metallist philosophy of money and suggested that these works underestimate the extent to which Bitcoiners and other crypto people regard money as related to power. Bitcoin, I suggested, can be read as a comment on the state's creditworthiness, with its features indicative of a withdrawal of public trust. I suggested that Bitcoiners' philosophy of money is syncretic in that it has aspects of practical metallism as described by Schumpeter (1954) as well as social constructionism, as exemplified in the performative role that belief occupies in ensuring the fixity of its coin supply. Other crypto people, I argued, dispense with practical metallism entirely in favour of social constructionism and the notion that value is the product of performativity. In chapter four, I also critically examined recent work on crypto scams to make the case that crypto people's ambivalence about scams can only be understood in light of their view that performativity generates value.

In sum, this thesis has tried to sensitively portray the complex politics and social relations of the crypto community. It has set aside the often reductive labels used to describe crypto people, largely eschewing terms such as anarchism, libertarianism, capitalism, financialisation, neoliberalism, and populism; instead, this thesis has tried to leave space for complexity, indeterminacy, contradiction, and ambivalence. Rather than explain these moments away, it has

sought to listen to how crypto people make sense of them—dwelling in these moments alongside them and finding much that is rich in the process. This thesis has also hopefully captured something of the liveliness, humour, and determination of the people who enliven its pages. My intention throughout has been not to speak for them, but rather to convey what I understand to be the principles, aspirations, speculations, and techniques that animate crypto so that others might understand them too.

So, in conclusion, is crypto "gonna make it?" This, of course, remains to be seen. However, in the more than fifteen years after the mining of Bitcoin's genesis block, Americans' satisfaction with the economy has hardly improved—especially among its younger generations. As for crypto, the community seems to have little inclination to fade away quietly. For them, there is little doubt that if the economy is allowed to remain as it is, the traditional financial system is NGMI.

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