

Chapter 1. Introduction: Inventing value

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This book begins the task of reconstructing the theory of value. Value is central to the commodity and asset sectors of the contemporary economy: nothing can be bought or sold, whether goods, services or assets, without beliefs about what it is worth. Given the enormous influence of market economies in our social world, value thus plays a key role in determining events and outcomes in contemporary society. Yet the best-established theories of value are radically inadequate to the task of explaining the role that value plays. On the one hand, mainstream economics sees value as the equilibrium price produced by the forces of demand and supply, but most prices are not in equilibrium and this model ignores many of the most important forces that influence them. This is much more than just an explanatory problem, since the model of equilibrating markets is central to the legitimation of the current economic system: without it the economic emperor has no clothes. On the other hand, critiques of the contemporary economy have been heavily influenced by the notion of value as the amount of socially necessary labour embedded in a product, drawn from Marx, which is equally untenable. This version of value theory has dominated critical political economy, not only in its Marxist variants, but also more subtly through its influence on concepts like *value creation* and *value extraction*. We need a more coherent concept of value so that we can expose how value actually operates in our economy and the increasingly problematic ways in which it is being manipulated for profit.

In their place, this book develops a theory of value that returns to its historical roots and to our common-sense understandings: value is, deceptively simply, *what an item is worth*. The book draws on recent work in valuation studies and in the French tradition of the economics of conventions, but also goes beyond that work by reintroducing explicit consideration of the role of social structures in shaping value, thus also re-structuring contemporary work on value. Our sense of the value of a thing is personal, but also draws deeply on normative standards of value, and a coherent understanding of value must therefore examine those normative standards and how they are formed, transformed and supported. The book's empirical focus is on the value of financial assets, and on the ways in which that value is *constructed* – or indeed *invented* – by actors in the finance sector pursuing their own interests. The very existence of financial assets depends on them being perceived as having value, and that perception in turn depends on the existence of distinctive structures that I have called *asset circles* and *asset complexes*, theorised for the first time in this work.

This introductory chapter outlines the argument of the book and positions it both politically and intellectually.

Theories of value

The first step we must take in this journey is to confront the contentious concept of *value* itself. Existing understandings of economic value are dominated by two traditions of economic

thought. On the one hand, we find the mainstream marginalist tradition in economics, which tends to ignore explicit mentions of value, but in practice treats it as identical to the notion of equilibrium price – the price a commodity would have if demand and supply for it were in balance. In a sense, value is an objective quantity for the marginalists: at any one time, every commodity is seen as having a single price for all, determined by the larger forces of the market. On the other, we find Marxist understandings of value as the product of labour. For Marx, value is also an objective property of commodities, determined by the amount of social necessary labour time required to produce them, and it sits at the heart of his critique of capitalism, which is concerned with how the value produced by labour is appropriated by the ruling class. Chapter two rejects both of these understandings of value, but also explores how the Marxist approach has seeped into and distorted other progressive attempts to get to grips with the problem of value. The concepts of value creation and value extraction, common in these discourses, rest on a Marxist-influenced productionist concept of value that is no more sustainable than the orthodox Marxist version. These discourses are at their strongest when they ignore the idea that value is created by production and instead frame decisions about the economy in terms of what we might call the *social value* of its products, recognising that value is not an objective but a normative quality. Indeed, despite their facades of objectivity, I suggest, both the Marxist and marginalist accounts have normative undercurrents and there is a good reason for this: value *is* fundamentally a normative concept.

Chapter three begins to develop this insight by building on a more promising recent literature on value. In practice, as the French conventions theorists have pointed out, talk of value functions in the economy as a set of justifications for prices (Boltanski & Esquerre, 2016, p. 37). There is therefore a sense in which value is subjective – each of us forms our own opinion of the value of a thing. However, this is not a purely individualistic subjectivity: The opinions of value we form are shaped by social forces, mediated through what I call *lay theories of value*. A lay theory of value is an everyday argument about a factor that affects the price that ought to be paid for a certain type of thing. When we form an opinion of the value of a thing, we usually take account of several such theories. The theories themselves are fundamentally normative, in at least two respects. First, they are theories about the price at which something *ought* to be bought and sold. Second, they are socially shared theories. Not only do we learn about them from each other, but we also learn which theories are socially accepted and in what circumstances from our interactions with each other. We may deploy such theories in making decisions about transactions, but also sometimes in negotiating prices, and only those theories that others also accept can be deployed successfully in negotiations.

One part of the study of value, then, must be to examine how it is that some lay theories of value rather than others become established as norms. This is often strongly influenced by what we may call *value entrepreneurs*, or *inventors* of value, typically producers or suppliers of goods who do discursive work – often in the form of advertising and marketing – to persuade potential customers to adopt favourable valuation conventions and apply them to their products. Because value depends on what we think about it, value entrepreneurs can invent value if they can shape what we think, creating reasons – reasons that would not otherwise have influenced us – for us to value goods more highly. Most obviously, this strategy is widely adopted by the producers of so-called luxury goods. These lay theories of value have a significant influence on the prices that purchasers are willing to pay for goods, and also on the prices that sellers are prepared to accept, but prices are not entirely determined by our theories of value. Rather, these are one important group of causal factors amongst others, and chapter three also discusses how we

should think of the relationship between value and price in a context where other factors also influence price outcomes.

When we turn more specifically to value in the finance sector, in chapter four, we find that lay theories of the value of financial assets are closely linked to beliefs about future returns from those assets. For most investors, the significant benefit from buying a financial asset is that it entitles the holder to a stream of income, often in the form of payments like interest or dividends and the price that is realised when the asset is subsequently resold. Conventional accounts of financial value suggest that we can forecast these payments, sometimes giving a range of probabilities to different possible outcomes, then calculate the present value of the stream of income. But all such forecasts are inherently uncertain, and so beliefs about the value of financial assets depend upon stories: fictions, as Jens Beckert calls them, that are made up about those future returns (Beckert, 2016).

At one level, those stories work in much the same way as our understandings of value more generally: they depend on persuading investors to accept certain lay theories of value (also known as valuation conventions) and to accept that a given asset should be valued on the basis of a particular theory or set of theories. During the Internet stock boom of the very early twenty-first century, for example, value entrepreneurs argued that companies would be able to convert visitors to their websites into profit in the long term and therefore that the more visitors a company had to their site the higher it should be valued, regardless of how much profit (or, usually, loss) it was making in the short term. Many investors were persuaded of this theory of value, and persuaded to apply it to the stocks of a series of so-called “new economy” companies, many of which subsequently collapsed under the weight of their losses (Thrift, 2001).

The chapter draws on the work of John Maynard Keynes and André Orléan on financial valuation conventions, Pierre Bourdieu’s work on symbolic value, and Jens Beckert’s work on fictional expectations to build an explanation of how financial value is invented. The stories that are told about financial value are central to this explanation, but stories do not weave this magic in the abstract, as some accounts of the influence of discourse seem to imply. On the contrary, their influence depends on who tells them, and on whom they are told to. Some groups or classes of financial actors have enormous discursive, social, political, and/or economic power, giving them the capacity to construct more influential narratives: the power to sell promises, to become successful financial value entrepreneurs. The power of those promises is squared in the realm of financial assets, because not only their value, but also the very existence of the assets themselves, depends on what we think about them. Financial value entrepreneurs not only invent or manipulate the discourses about how we should value their assets, but also invent the assets themselves, and the discourses that construct them as being assets at all. But those promises have to be sold to someone to have any effect. An audience must be persuaded by the story, and in particular a group of investors must be created that is willing to take the story and its connection to a particular asset seriously enough to consider buying the asset. In other words, these stories work in part by constructing what I call *asset circles* for the financial asset concerned. Only once a group has been created that takes the asset seriously as a potential investment does it become important on what basis – on the basis of what lay theories – those potential investors are prepared to value the asset.

Chapter five develops the concept of asset circles and outlines the structural elements of the book’s approach to value in general and financial value in particular. As a variety of norms, lay theories of value are backed by structures I have called *norm circles* (Elder-Vass, 2010). Assets,

however, are more complex. Unlike ordinary goods and services, but like money, financial assets cannot *exist* without a belief that they can be redeemed or sold on at some point in the future, and so they depend on a further layer of social construction. The chapter develops the argument through the parallels between financial assets and money. Both depend for their very existence on social structures. In the case of money I call these *monetary complexes*, which include both a monetary infrastructure and also a *monetary circle*: a group of social actors that are willing to accept the particular monetary instrument concerned in payment. Without a monetary circle, money is worthless, indeed it is not even money. Similarly, I argue that the existence of financial assets depends on structures that I call *asset complexes*, which in turn consist of a combination of an asset circle – a group of investors open to buying the asset – and an asset infrastructure – the technology and institutions that record the existence of the asset and make it tradable. Both norm circles and asset complexes are themselves subject to influence from structures like banks and other finance sector organisations, and the discursive structures through which those organisations exert some of their influences.

Financial value in practice

The second, more empirically oriented, part of this book is about these processes of influence. It discusses how asset circles are constructed and how their members are persuaded to apply particular lay theories of value to the assets they are interested in. Having introduced these concepts in the first four substantive chapters, the next three use material from publicly available sources to apply the argument to three different classes of financial assets. All three are cases where value remains in doubt, either because the assets are relatively new or because their valuation has been in crisis. First, I discuss venture capital, which constructs high valuations for companies with highly uncertain futures in order to launch them onto the stock exchange; second, the cryptocurrency Bitcoin, where the entire valuation system still remains in doubt, and may yet collapse; and third, mortgage-backed securities and related derivatives: the precarious assets, invented and then constructed as safe by leading investment banks, that brought about the 2008 crisis.

My cases are all drawn from the riskier end of the spectrum of financial assets. In a sense the advocates of each of these groups of assets are seeking to borrow the discourses and theories of value that underpin the valuation of financial assets at the safer end of the spectrum – assets like shares in well-established companies with steady divided flows, state issued money and government bonds – and apply them to quite different types of asset. The very uncertainty of these cases makes the work that is done to persuade potential investors more apparent.

I begin in chapter six with the case of venture capital, which in some ways is the simplest case because venture capitalists are not trying to introduce a whole new class of assets, but rather to invent value for new examples of a familiar asset class. Venture capitalists buy stakes in private companies and seek to develop them into larger companies that can be sold on, often by floating them onto the public stock exchange, ideally as unicorns – private companies valued at over a billion dollars – so that they can sell their stake at a large profit. In doing so they aim to create a new financial asset – public shares in the company they have invested in – but in a context where shares in companies more generally are a familiar asset within a well-established institutional and discursive context.

While venture capitalists seek to develop the revenues of the businesses they buy, arguably their largest contribution is to build an asset circle for the company's stock and to spin a set of narratives about its value. The chapter traces this process through its typical stages, beginning with the business plans that form the basis for an initial investment by the venture capitalists – works of fiction that create a narrative about the business's revenue prospects. Ultimately, however, venture capitalists have little interest in the revenues of the companies they back, except as a means to a very different end: the possibility of selling its shares at a profit. They thus gradually construct an asset circle, beginning with other venture capitalists who are persuaded to join in subsequent funding rounds, and then on to other major institutional investors when it is time to launch the stock on the public exchanges. At each stage narratives are constructed that connect the business being promoted to existing theories of corporate value and existing schemes of categories. At each stage every possible effort is also made to associate the business with existing institutions possessing the symbolic capital required to consecrate its value in the eyes of potential investors. Finally, in some of the most successful cases for venture capitalists, the initial public offering of shares provides a test of both the size of the asset circle that has been established and the success in establishing narratives that justify a value for it – and if successful, positions the venture capitalists for their payday. Venture capitalism is thus a complex of practices and organisations that builds businesses but also constructs their valuations, drawing on but also developing the wider culture of valuation that prevails in the finance sector.

By contrast with the case of venture capitalists, the advocates of Bitcoin have invented a whole new class of assets from scratch, and done so outside the framework of established financial institutions. Bitcoin is an electronic currency, based on a blockchain: a cryptographically secured distributed database of previous transactions. Chapter seven investigates how this new type of asset has come to be regarded as having value. What kinds of discourses have been deployed? What valuation conventions have been invoked or developed? Which audiences have these discourses been addressed to? What forums have been used to address these audiences? How have they been persuaded to join the asset circle for Bitcoin? These discourses have functioned largely outside the mainstream financial system and yet they have succeeded in constructing a purely virtual asset as valuable. This provides an illuminating comparison with the more mainstream cases. It shows the processes of narrative construction very clearly, in a context where existing financial power was largely absent, demonstrating both the potential and the limitations of such situations.

Bitcoin began life, not as a financial asset, but as a form of money. Its early advocates were not trying to create an asset circle but a monetary circle for Bitcoin: a group of social actors willing to accept Bitcoin in payment. Their early narratives were thus strongly oriented to the strengths of Bitcoin as a means of payment, but these narratives have encountered significant resistance. Although they remain in circulation, and continue to provide a motivation for some Bitcoin buyers, there is a sense today in which they are merely the ideology of Bitcoin, while most owners of Bitcoin now hold it as an investment, a financial asset. More recent narratives of Bitcoin's value have become increasingly oriented to its potential as an investment, and gradually the original *monetary* circle has been supplemented and arguably largely supplanted by an *asset* circle: actors who regard it as a potentially valuable investment.

Because Bitcoin does not generate a revenue stream, other than the possibility of selling it on in the future, it is in some respects a particularly pure form of financial asset: one whose value

depends entirely on the belief that it could be sold on in the future at a profitable price. Its valuation conventions are therefore also separated entirely from beliefs about such revenue streams and instead depend very much on beliefs about future price changes – an example of what Keynes referred to as the “beauty contest” model of financial markets (Keynes, 1973, pp. 154–5). In this model, potential buyers and sellers of an asset value it on the basis of what they think other buyers will be willing to pay for it in the future. In such contexts, asset prices are notoriously volatile. At the same time, however, there remain “hodlers” of Bitcoin who continue to hold it for more ideological reasons, providing a relatively stable minimum membership of its asset circle and thus insulating it from total collapses in value.

The contrast between Bitcoin and the topic of the third case study could hardly be greater. Chapter eight deals with the rise and fall of structured securities built from subprime mortgages in the early twenty-first century. These were relatively new products, which “sliced and diced” low quality mortgage debt to create new securities that were often given AAA risk ratings and purchased in large numbers by major financial institutions. While the early backers of Bitcoins were complete outsiders, the inventors of these new securities were some of the most powerful actors in the global financial system: the US investment banks. While the dominant discourses have tended to dismiss Bitcoin as a dangerous unstable invention of cranks, until 2008 they presented mortgage-backed securities as one of the great innovations of modern finance. Yet they turned out to be equally unstable and in 2008 their value collapsed, threatening to bring the world financial system down with them.

While the narratives of Bitcoin’s value were built on its innovative nature as a new kind of asset, the most important narratives of the value of these new kinds of securities positioned them as just another variation of an already familiar form of financial assets: fixed-income securities like government and corporate bonds. Considerable care and indeed power were devoted to having them rated by the same credit agencies that rated those bonds and therefore to having them positioned in the market as equivalent to those bonds. A security backed by subprime mortgage repayments could therefore receive the same AAA rating as the safest bonds, which made them investible by the most conservative mutual funds and investment managers. Rather than constructing a new asset circle for these new kinds of assets, the investment banks constructed a narrative that inserted them into a class of assets that was already backed by an asset circle with a huge amount of investment funds at its disposal.

The success of this insertion in turn depended on the enormous multi-faceted structural power of the investment banks. Their political power had enabled them to push back regulation of financial innovation since the 1980s, making it possible for them to sell risky new products with little or no regulatory intervention, and indeed they continued to employ that power to protect these assets from regulation until the crisis unfolded. Their discursive power – their symbolic capital, in Bourdieu’s terms – meant that potential investors were willing to trust their narratives of safety and equivalence for these new products. And their economic power enabled them to manipulate the ratings system to secure the high ratings from the credit agencies that were required to make these securities acceptable to major institutional investors. Their power to construct value for these securities made them enormous profits, but also had a devastating impact on the global economic system when the narrative could no longer be sustained.

On the one hand, these case studies begin to illustrate the sheer diversity of the financial assets that can be constructed as valuable and of the actors inventing their value. On the other, they reveal the similarities between the structures of value in all of these different cases. In every case

the process depends on the construction of narratives of value that encourage potential buyers to see the financial instrument concerned as an investible asset, shape how they categorise the instrument, and thus influence the valuation conventions or lay theories of value they are willing to apply to them. None of this is natural or inevitable, and the assets the process constructs are utterly dependent on the complex of institutions and discourses that sustain these narratives. When the narratives are cast into doubt, so are the assets upon which our entire contemporary financial system is based.

Financial value vs social value?

The explosion of financial assets over the last few decades has transformed the world's leading economies. The finance, insurance and real estate sector now accounts for 21% of US national income – double its level in 1947 (Howells & Morgan, 2020, p. 11; Witko, 2016). The financial services sector alone constitutes 8% of the formal economy of the US and 7% in the UK (Rhodes, 2019, p. 8). Beyond its sheer scale, it plays a pivotal role in the wider economy, with substantial power over the flow of funds to other sectors, and in politics, where it is often able to influence policy in its interests, not only through lobbying but also through the regular exchange of personnel between the sector and the top echelons of government. One measure of that influence was the progressive loosening of financial regulations, allowing rampant financial innovation with little regard for the risks it created until in 2008 it generated the greatest crash in living memory.

One of the central mysteries of contemporary society is how the financial sector has managed to accumulate so much wealth and power. The heart of the answer is its capacity to create financial assets – stocks, bonds, options, derivatives, and the like – which investors are prepared to buy. These assets have been naturalised: they have come to be seen as unproblematic objects with value in their own right and thus as just one more commodity that it is perfectly reasonable to buy and sell for profit. Yet in reality they are nothing more than promises, typically promises to deliver a revenue stream if certain conditions are satisfied, and highly tenuous promises at that. The value of these assets, to put it differently, is socially constructed: it depends on the beliefs of investors about their value, which depend in turn on the stories that are told in order to encourage those beliefs.

The naturalisation of financial assets thus obscures an extraordinary set of structures that lie behind the acceptance of such promises by investors. Once we look behind the veil of naturalisation, we can see both the layer upon layer of promises but also the possibility at each layer of things going wrong. These are mountains of promises, where a slippage of any one stratum could bring the whole edifice crashing down, as we saw in 2008. Perhaps what is most extraordinary of all is that a massive portion of our economy has been built on top of this mountain of promises, and that the institutions that construct the mountain extract enormous revenues from their power to sell them, while those revenues are also naturalised, as profits from supposedly productive activity. Yet it is far from clear what the social benefits of the process are, if there are any, and if so whether they justify the enormous risks created for the rest of our economic system.

This book aims to peel back some of these layers, to reveal how these promises are created and sold and how this process produces the apparent value of financial assets. We cannot rely on conventional economics to explain this. Its models of supply and demand take the naturalisation

of financial assets for granted and as a consequence they obscure rather than illuminate the fundamental drivers of the prices of financial assets. To put the point as simply as possible: financial assets have value only because they are believed to have value, and mainstream economics hardly scrapes the surface of how such beliefs are established.

This book develops and applies an alternative, sociologically-influenced account of how those beliefs are constructed. It argues that the value of assets like money, shares, and derivatives is socially constructed: it is experienced as an individual belief but it depends on collective normative structures that shape those beliefs. The demand for financial instruments is thus created by narratives that generate expectations of future value, by institutions that bolster these expectations, and by persuading other financial actors to accept them as facts. While such values are often stabilised, they are potentially highly precarious, generating massive risk for our economic system.

We must also ask whether these are the kinds of values that ought to be governing our economic and thus our social lives. As Mariana Mazzucato and indeed many other critics of mainstream economics have argued, there are different kinds of values and monetary value is often not a good measure of the *social* value of the different options facing us as a society (Mazzucato, 2018). Unlike many material goods and personal services, financial assets do not meet directly material human needs. No doubt they sometimes help investors to meet such needs in the future, notably through providing opportunities to invest savings, funding pensions, and underpinning the provision of insurance, but there are other ways of meeting our genuine needs that may avoid the risks and the savage inequality that result from relying on investment markets. The issues are complex, but we are entitled to ask whether the buying and selling of financial instruments creates social value at all, or ultimately generates greater social costs than any benefits it may deliver.

It is difficult to obtain a balanced answer to questions like these because of the enormous power of the finance sector to repress such discourses in the public sphere. The playing field is sloped vertiginously against critics of the financial institutions, for a host of reasons. One is the revolving door between senior political positions and lucrative positions in the finance sector that places financiers in positions of governmental authority and creates a sense of common interest between politicians and finance (notably the many former Goldman Sachs bankers in recent US administrations: Dealbook, 2017). Another is the ways in which the discourse of mainstream economics portrays the success of the banks and other financial institutions as a reasonable reward for responding to a set of markets that simply and neutrally express the needs of the wider economy and society. This discourse implies that the prices of the financial assets on which their power depends are an objective reflection of their social value of their contribution and serves to legitimate financial markets and financial profits. This argument in turn has led to the modification of national accounting principles to treat the profits of the finance sector as part of the national income (Assa, 2018). Combined with the obsession of the political media with so-called economic growth, this means that politicians who are measured in part by their ability to deliver growth in national income have an incentive to support growing profits in the finance sector. The consequence is that the sector ends up being treated by politicians as untouchable and by mainstream economists as a triumph of the market model (until it collapses, and even then the qualifications are temporary).

And yet, if the prices of financial assets are a product, not of meeting a genuine social need, but at least partly of processes through which finance sector actors use their market power, their

discursive power, and their political power to invent and shape the value of financial assets, then the whole basis of the glorification and safeguarding of the sector must be called into question. If the values of financial assets are a means for finance sector actors to profit at the expense of wider society rather than a means for them to provide for the needs of wider society, we must ask whether this is what is best for us collectively and be prepared to rethink the place of finance in our society. The better we can understand how these processes work, the better placed we are to determine what sort of political response is appropriate. This book is a step towards understanding those processes better.

Taking a realist perspective

The argument builds on work from a range of disciplines, most notably economic sociology, heterodox economics and political economy, and in particular on excellent recent work in the study of finance and valuation. In recent years academics have engaged with the microsociological basis of financial markets, the performativity of economic theory, financialisation, assetisation and indeed the global financial crisis, all of which are relevant to this project. Nevertheless, work on financial valuation has been seen as one of the most pressing absences in contemporary economic sociology (Carruthers & Kim, 2011, p. 253). Although work on financial valuation has started to flourish since Carruthers and Kim's survey, it has typically been limited by its orientation to micro level action and interaction and relative neglect of social structural forces. That focus is often a result of the pragmatist perspective of its authors: a perspective that has been seen as shaping the field (Barman, 2015, p. 12). On the other hand, work in the political economy of finance has tended to focus on macroeconomic questions without connecting them to microsociological understandings of the human actions that contribute to them.

Some of this work is also limited by its disciplinary orientations. I reject the division of labour, often attributed to Talcott Parsons, in which sociology deals with 'the social' and economics with 'the economic' as if these were two different realms of reality. They are not. The economy is not merely embedded in the social, as some economic sociologists have argued: it is inherently social itself. Economic events are social events. More recent economic sociology has pushed the boundaries of the economic questions to which sociological methods can be applied but it still seems to fall short of offering alternative approaches to issues like the causal explanation of price determination that are considered core to economics. While sociologists are increasingly offering partial explanations of price determination, they generally avoid offering comprehensive explanations that take account of both the kinds of causal factors discussed by economists and those introduced by sociologists. Too many of them continue to concede economic matters to the economists. By contrast, I take the view that economic events should be explained in just the same way as other social events and therefore that sociologically-inflected approaches must be taken to even the core questions of economics. That does not mean that I am pursuing a sociological imperialism, in which economics is to be taken over by sociology; on the contrary, it means that I regard disciplinary boundaries in the social sciences as obstacles to proper explanation. Rather than expanding one discipline at the expense of another, we need to break down the boundaries between them. That perspective is also reflected in what is perhaps an unconventional approach to sociology itself, seeing it as concerned with providing causal explanations, and not just interpretations, of social events.

These perspectives arise in part from my broader philosophical commitment to a critical realist approach to the social sciences. For critical realists, all events are understood as multiply determined by the interacting causal powers of many different entities at varying levels of structure. More specifically, both individual action and social structures are seen as causally significant for social events and outcomes, and this book's argument goes beyond the existing literature primarily through its attention to the structures involved in valuation in general and financial valuation in particular. There is already work in the field that sees familiar structures such as financial institutions and indeed their discursive influence as causally significant. I go further, though, by also seeking to analyse the distinctive structures that are involved in the very nature of value and financial value, and how they are in turn influenced by those more familiar structures. The relevant aspects of critical realist theory are introduced where they are essential to understanding the substantive argument, notably a discussion of causality in open systems in chapter three that leads in to an explanation of the influence of value on the determination of prices, and an explanation of the realist approach to structures, mechanisms and emergent causal powers in chapter five, where the deeper structures behind financial valuation are examined.

Some readers may be surprised to find a book that claims value is socially constructed also invoking a realist philosophy of causation, as realism and constructionism have often been seen as conflicting with each other. However, as I and several other critical realists have argued at length, realism and a moderate version of constructionism are not merely compatible but complementary (Elder-Vass, 2012; Sayer, 2000, pp. 81–102; Smith, 2010, pp. 119–206). For realists, social construction is a real causal process, driven in part by specific intentional actors, under the influence of a range of social structures, mediated through the production of discursive structures and producing causal consequences for potentially identifiable affected audiences. Once we recognise that social construction is thoroughly compatible with a realist social ontology, we need to explain the mechanisms behind social construction and the role played by both active agency and social power in those mechanisms. These questions are obscured by vaguer and sometimes superficially more radical constructionisms that ascribe construction simply to discourse or language in general rather than to active agents along with their interests and the power at their disposal (Elder-Vass, 2012, pp. 3–14). Social construction operates *through* language and discourse, but language and discourse are not its driving forces (Elder-Vass, 2011).

This causal approach is anathema to more extreme versions of constructionism. There are several parts to it. First, we must pay attention to the processes in which constructions are developed but also to the actors who often play active causal roles in them. Second, we must attend to the interrelationship between these discourses and the wider institutional context. And third, these discourses do not function by hanging vaguely in the air and generally affecting the symbolic atmosphere, but rather by having specific effects on specific audiences. For example, a credit rating is a symbolic category assigned to an asset - it is a social construction, in that it depends on how we think about it, and there is a set of discourses that tend to stabilise belief in these ratings as reliable guides to investment quality. Nevertheless, the actual assignation is done by a specific actor, the rating agency, and as we will see in chapter eight is subject to manipulation and influence, for example from the bank commissioning the rating. Finally, it has its effect by persuading a specific audience, in this case institutional investors who use credit ratings as inputs to their investment decisions. This attention to audiences is perhaps the most distinctive element of the book's argument, and applying it to the case of financial assets leads to

the concept of asset circles, which is its most distinctive conceptual contribution. Beyond this ontological and explanatory innovation, the crucial benefit of a realist constructionism is that it allows us to see, from the realist perspective, that the construction of financial value is to a large extent a product of power, exercised by social actors who shape what is constructed in their own interests, and from the constructionist perspective, that it could be constructed differently.

One implication of the critical realist approach is that we need to approach the task of explaining social phenomena by combining two complementary methods: retroduction and retrodiction. Retroduction means picking out one key causal mechanism and examining how it operates across a range of circumstances. Retrodiction, on the other hand, is oriented to giving a fuller explanation of a narrower set of events by identifying the significant causal mechanisms involved in their causation and examining how they interact to produce the event(s) concerned (Elder-Vass, 2010, pp. 48, 72–3; Lawson, 1997, pp. 24, 221). Among other things, the early chapters of the book retroduce specific mechanisms and structures of general relevance to the explanation of value and financial value. To identify a mechanism, we generally need to look across multiple cases and recognise something that they have in common, understanding the complexity of each case while also looking for elements of repeatability (Rutzou & Elder-Vass, 2019). Likewise, to test a retroductive explanation we need to transplant it to other potentially parallel cases and examine whether something adequately similar can be seen there. Each explanation of a particular mechanism or structure then becomes a building block that can be combined, tentatively, with others to build retrodictive explanations of actual events. The later chapters illustrate the operation of the mechanisms identified in the early chapters, in interaction with others, by giving retrodictive accounts of the cases concerned: by looking at how a range of different powers and mechanisms interact in them.

This book, then, applies the realist methods of retroduction and retrodiction to develop constructionist explanations of value and financial value that recognise the active roles played by interested actors including powerful social institutions. It introduces novel concepts that help us to understand the structural forces at work in the realm of value and thus reconstructs the theory of value in a form that helps us to understand that the value of financial assets, far from being the natural and desirable outcome of neutral market processes, is actively manipulated by powerful financial institutions in pursuit of ever-expanding profit and power.

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