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INTRODUCTION



The mutability of economic things

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ABSTRACT

How can we understand the relations between economic things and different forms of exchange – commodities, assets, gifts and singularities – in the contemporary economy? The decline of industrial capitalism and the emergence of new types of intangible valuables challenge our understanding of what economic life is about. Analysing economies through one dominant form of exchange risks overlooking the interplay between different types of valuables, their materiality and interactions that form the basis of value creation and exchange. In contrast, this special issue highlights the mutability of things – their capacity to take on and abandon different forms – as a precondition for economic activity. Drawing on a variety of empirical case studies of markets for seeds, grains, fish, carbon emissions and cattle, the contributions set out to trace the social biographies of economic things in, between and beyond multiple economic forms. We argue that it is the very ability of economic things to shift in and out of particular forms of exchange that enables the complex globalised economies of our time.

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Introduction

These are not the easiest times both for capitalism's protagonists and its commentators. The globalised economy has come under political attack, not just by the left, but also by the populist right. Neoliberalism, once the guiding paradigm for both the economy and its critics, has been proclaimed (un)dead, with some even doubting whether we have ever been neoliberal at all (Birch 2015). Yesterday's industries – cloth, cars, coal – have long been in decline. But with airports, offices and stadiums finding themselves in a world transformed by a novel virus, it is uncertain whether today's industries will not suffer the same fate. Meanwhile, shares in companies operating in the promising economies of tomorrow are soaring on the stock markets. Whether they are actually going to produce something that will make good on their promises, however, is hotly debated.

How, then, can we comprehend the nature and state of the economy? In recent years, a popular approach has been to focus on the dominant valuables in the generation and distribution of profit and wealth. Piketty (2014) highlights how wealth has become increasingly dependent on accumulation through inheritance rather than labour. With the continuing rise of tech giants, other works in economics, law and the social sciences have focused on platforms (that is, large technology infrastructures) as the key elements of contemporary digital capitalism (Kenney and Zysman 2016, Srnicek 2016). Yet others, such as Boltanski and Esquerre (2020) have turned to the domain of

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consumer culture, pointing out how production and consumption have shifted from mundane, easily quantifiable mass commodities to allegedly ‘singular’ valuables that can reap higher prices. Looking at corporate accounting and finance, Birch and Muniesa (2020, p. 4) diagnose an ‘asset condition’, that is, the centrality of elusive and complex assets rather than market sales for the value of companies and national economies.

How new, how different are the objects populating this ‘new economy’ really? Some authors (Srnicek 2016, Birch 2017, Perzanowski and Schultz 2018) focus on new valuables such as platform infrastructures, software-infused devices or intellectual property, emphasising how an entirely new materiality begets new forms of exchange. Others (Boltanski and Esquerre 2020) argue that what has changed is not so much the nature of valuables themselves as the regime of valuation: whether asset, singularity or commodity, it is really all old wine in new bottles. In this special issue of *JCE*, we outline a third position. We argue that the rise and fall of regimes of exchange is best understood through the mutability of economic things themselves.

Things are not simply born as commodities, assets or gifts: they have, as Appadurai (1986) reminds us, a life before and after. At the same time, we have to understand their form of exchange – that is, the mode things circulate under and are evaluated in, as well as the corresponding economic assemblages they summon – as tied to their materiality rather than as a mere convention between human economic actors. Several of the questions central to theorising the mutability of things have been raised before in *JCE*: What elements allow a thing to become commodified (Hawkins 2018)? What properties does the gift form require in material and calculative terms (Hanson 2015, Lee 2020)? What do things need to do in order to work as assets (Sinclair 2008, Truitt 2021)? How do they embody their unique value as singularities (Waldby 2015)?

Drawing from a variety of fields and schools of thought in the social study of markets (Callon 1998a, Barry and Slater 2005, Aspers 2011) and economic anthropology (Appadurai 1986, Tsing 2015), we want to extend this debate. The articles in this special issue each look at the mutability of things in a particular way: how they turn into commodities, oscillate between gift and asset form, or go astray on the market. Building on previous discussions in *JCE* on the role of objects and materialities in doing economics (Neyland *et al.* 2018), as well as on the plurality of forms of exchange (Waldby 2015, Vasantkumar 2019), they broaden existing conventional views on the social origin of value (for an overview, see Beckert 2011) by emphasising the historically contingent, socio-technical and material factors that shape the social biographies of economic things. The unstable relationship between things and forms of exchange as their calculative and material frames is, we argue, an essential but overlooked aspect of value generation in the contemporary economy.

Modifications: assuming form

The ills of the modern era, Karl Polanyi (2001, pp. 71–80) concluded, stemmed from the extension of the commodity form to things not produced for the market: money, land and labour. Unlike ‘proper’ commodities, he argued, these ‘fictitious’ ones were not ‘objects produced for sale on the market’ (Polanyi 2001, p. 75), which could be freed from social relations through a particular transaction. In order to remedy the damage that their commodification had done, they instead required a reframing and re-embedding in society. Polanyi’s argument is interesting for two reasons. First, because money, land and labour have in many respects been de-commodified since the time of his writing – though perhaps not in the way he called for. Money is increasingly a function of future expectation and monetary policy (Vasantkumar 2019); more than ever, land seems to have gained speculative rather than exchange value (Christophers 2017, Fairbairn 2020, Ouma 2020); freelancers are encouraged to account for their labour not as a commodity but as human capital (Pistor 2019, p. 11). But a second implication from Polanyi’s argument is even more telling: in order to work as market goods, things need to undergo a process that prepares them for their lives as commodities.

Kristin Asdal and Béatrice Cointe follow such a process in their contribution to this issue: a series of tasting and cooking experiments, which is meant to turn aquafarm-raised cod fish into a super-market commodity ready to be eaten at home. The commodification of nature, however, is not always a straightforward process. Although indistinguishable at first sight, farmed cod turns out to be quite different from its wild counterpart in quality and texture. By breaking with the conventional distinction between production and markets, Asdal and Cointe trace the relational attempts of producers, scientists and consumers in co-modifying this farmed offspring through consumer experiments for the market. With each experimental step of preparing the cod for its life on the shelves, the experimenters also have to create an experimental consumer. Many different commodity forms are conceivable for cod, but to find the most suitable one, cod producers would have to know in advance what their consumer looks like – something that would be possible only if they knew the final shape of their product. Despite these meticulous efforts to find the perfect match between fish and consumers, however, it seems that both will be continuing on their separate ways for the time being. After all, the codfish does not seem to be very keen on playing its part in co-modification when held in captivity.

The critique of commodification so far has largely understood the process of making market goods as following some form of Callonian performativity: economists, marketing experts and advertising professionals imagine an exchange form and subsequently impose it on a thing (Callon 1998a, 2010). Asdal's and Cointe's study shows that, while commodification is performative, we should rather understand this performativity as Baradian (Barad 2007), simultaneously redefining experimental subjects and objects. It is not guaranteed that this choreography will be successful in every case: eventually, a commodity might end up without a consumer; a market might be created but its goods will not hold together. In speaking of things rather than objects, we highlight that valuables are better understood as an assemblage of elements (Latour 2005), which might come together in a different congregation – or eventually part ways.

What happens when a market good does not hold together can be seen in Jessica Phoenix's paper. To combat bovine tuberculosis, the British government introduced a new metric for disease risk that was supposed to reshape cattle trading between farms. The idea is to transform uncertainties into a simple number; to do away with the complex calculations of disease risk by farmers and replace them with a clear price incentive for healthy animals. But new qualities and quantities, Phoenix explains, do not readily stick to an existing economic thing, and even less so when they are entangled in the socio-biological and environmental contingencies of life. When they instead go astray, unhealthy cattle suddenly become more valuable; disease and health probabilities reattach themselves to farmers rather than farms; and buyers come up with metrics of their own.

An aesthetic critique of commodities has taught us to think of them as simplified, reduced and passive versions of their uncommodified counterparts (Horkheimer and Adorno 2002, pp. 94–136). On the face of it, Phoenix's story confirms this assumption: the disease metric is a quality reduced to a quantity, more straightforward and easily expressed in a price. The disintegration of cattle as a market good redistributes its qualities and quantities across other economic actors, with unforeseen consequences. The market fails because it cannot contain such spread – the spread of disease as much as the spread of alternative ways of framing the good it is supposed to move (Callon 1998b). Polanyi considered the surplus of disruptions (and the deficit of remedies) to be an effect of misplaced commodification: some things were just not suitable to be traded on the market. But Phoenix shows us that the disintegration of a commodity might happen even when the good itself, embedded in a functioning market, is considered largely trivial. We thus cannot take for granted that certain things follow a particular form of exchange, not even when, as Polanyi postulated, they were produced for sale on a market.

From the point of view of a thing itself, as Igor Kopytoff (1986) and Arjun Appadurai (1986) have pointed out, its life as a commodity is only one phase of its biography: '[T]hings can move in *and* out of the commodity state' Appadurai (1986, p. 13; emphasis original) writes, dismissing the idea that the commodity form is final or transcendent. Rather than using a particular form

of exchange – in this case, the commodity – as analytical frame for categorising and ordering economic things, both Phoenix's piece and Asdal's and Cointe's paper underscore the need to do the opposite: it is through the materialities of particular economic things that we can understand how generalised forms of exchange come into being or cease to function. More than mouldable, cod and cattle are mutable. They are turned into objects able to follow the logic of market exchange but – in the double sense of the word object – can also refuse to obey it blindly (Latour 1996) and instead travel on their own trajectories. In other words, the agency of economic things matters: we must think of them not just as the objects but also as the subjects of economic life (Kang 2020).

Suspensions: shifting shape

If things can lend themselves to a particular economic form but do not strictly have to, what does that imply for an economy in which commodities are no longer the only or even the central form of exchange? This question touches upon the nature of the changes in the economy – singularisation, assetisation, financialisation, datafication, to name just a few – we are currently witnessing. Do they result from radically new objects that do not fit into the old categories of labour, capital and commodities? Or are they, as two pieces in the present issue suggest, at least in part caused by transformations of existing things?

Veit Braun's history of seed as a market good traces one such transformation. Over the past 30 years, ever-new property rights have undermined the commodity status of seeds (Schubert *et al.* 2011). However, seed is just one good (alongside digital media or consumer electronics), which has become increasingly assetised through intellectual property rights (Perzanowski and Schultz 2018, Kang 2020), a development often justified by the material nature of these goods. But neither has the biology of seed changed over the past half a century, Braun argues, nor did it ever strictly adhere to the commodity form in the first place: it is due to economic shifts in farming and the seed industry that its imperfect commodification has come to the fore and calls into question the viability of an established market.

If the successful (or superficial) commodification of seed rested upon its embeddedness in a landscape of practices, institutions and calculations, it is the slow but inevitable tectonic shifts in this landscape that make it take new form. Changing farming practices, the demise of business models, new interpretations of what it means to be a breeder and the fading of an agrarian society all mean that the assumptions that commodified seed relied on are no longer given. The problematic mutation of a former market good is only the most concrete but certainly not the only shift in the relations that make and frame the seed industry. Against this background, Braun is sceptical whether we can return to an idealised commodity market for books, films or video games. The successful commodification of things, he argues, should be seen as a rare exception rather than the norm.

Shifts in form do not necessarily have to be disruptive, however. Some economic actors are able to exploit the mutability of things to their benefit, as Pierre Delvenne shows in his paper. In Argentina's rural capitalism, the *silo bolsa* (silo bag), a large elongated plastic silo or bag, allows harvested soybeans to switch from the commodity to the asset form. Protecting the beans from wind, sun and rain, the *silo bolsa* extends their shelf life, removes them from the market and provides them with speculative value: if prices are low at the point of harvest, soy farmers can wait and gamble for higher prices down the line. A thin layer of plastic is all that separates the commodity from the asset form. And yet it allows farmers to briefly escape the price race to the bottom and to play the globalised commodities markets to their advantage. What is crucial here is not just that commodified soybeans are transformed into assetised ones; the removal of the silo bag will also re-transform the soybeans into commodities.

The wrapping thus separates these two forms of exchange as much as it bridges them, enabling soybeans to change form and soy farmers to channel value through the precarious economic landscape of present-day Argentina. Although soybeans only shift shape for a brief period, eventually

falling back into the commodity form, the difference between now and then may be enough for farmers to avoid the competition and price squeezes tied to the latter. Assetisation is subtle and, on the face of it, trivial in Delvenne's study: far from a fundamental shift in Argentina's national economy, it is better described as a clever technique employed by farmers to find loopholes and temporary alternatives (Cronon 1991, pp. 97–147).

The reliance of economic things on other elements highlighted by these two studies broadens our understanding of mutability. Mutability is not simply an inherent ability of things to change form. We can also think of it as a reaction to shifts in the wider topography of the economic world. The *silo bolsa* allows soybeans to connect with future markets and prices that would otherwise be out of reach. In contrast, the vicious cycle of unenforceable property claims increasingly destabilises the commodity form of wheat seed, making it harder for breeders to capture profits in the market. Such transformations go beyond mere symbolic or epistemic changes in interpretation, cultural norms or appreciation, which Appadurai (1986) refers to when speaking about the social life of things. This would imply that the materiality of things stays the same while our *representation* of them changes. We should rather understand these shifts as ontological rearticulations, as Gay Hawkins (2018) has recently pointed out in *JCE*: they equally affect the material, calculative and affective *relations* between economic things and us.

Conjunctions: merging materialities

Economic life is not built on the static, generalised logic of one universal form of exchange but consists of the ability of economic things to transform, mutate and morph. What does that imply for studying the economy? The synchronicity of forms contradicts 'evolutionary' narratives in which economic things move from gift to barter to commodity to asset and singularity forms over the course of history. Movements between these forms are anything but unidirectional and, in any case, the possible states that things can take are not limited to a handful of analytic concepts or economic conventions. The question is thus one of making sense of the economy by acknowledging its diversity rather than reducing it to one single logic – an issue that goes back at least as far as Marx's discussion of the relationship between commodity production, land rents and 'fictitious capital' (Marx 1990, pp. 379–458, 525–542; 751–778).

Saskia Brill and Alexander Dobeson attempt to answer this question in their respective pieces in this collection. Moving between the sites of carbon capture and storage projects and the marketplaces for CO₂ certificates, Brill tries to make sense of the peculiar nature of this good, which turns into a commodity through countless acts of measurement and complex calculations (Muniesa *et al.* 2017, Ehrenstein 2018). For indigenous groups involved in voluntary carbon trade, however, the carbon market works best if they can still be recognised in the certificate travelling to the other end of the world. For many buyers in carbon-intensive industries, in turn, such certificates are most attractive when they allow for the flow not just of compensation but of generosity, too.

In this sense, Brill's analysis resembles Anna Tsing's (2013) description of 'supply-chain capitalism', which relies on moving valuables between gift and commodity forms. Unlike Tsing, however, Brill emphasises that the challenge the producers of these certificates face is to turn them into commodities, gifts and singularities at the *same* time. What is peculiar about this fusion of forms is that carbon certificates only ever exhibit one of their sides, depending on where they pass through. In the marketplace, they comply with the logic of prices and calculation; in the management and self-perception of carbon-capture projects, they express the uniqueness of a place and people; in the business strategies of companies, they feature as a way of giving back without paying back. Deviating from the purity of any one of these forms, carbon certificates allow groups and communities to participate successfully in a global economy of CO₂, provided these certificates manage to embody both uniqueness and generosity.

Taking us on a stroll across a lavish festival in northern Iceland, Alexander Dobeson draws a somewhat more sobering lesson. The Great Fish Day, on which the wealthy holders of fishing

quotas shower a village and the surrounding region with free seafood, attracts his curiosity. What does it do to a local community, Dobeson asks, if for one weekend in the year, the otherwise monopolised and mass-exported fish takes the form of a gift to neighbours and strangers? Revisiting Marcel Mauss's (2002) concept of the *potlatch* as antagonistic, overwhelming generosity, he points out that the annual event fulfils an important role in the distribution of wealth and power in the village and beyond. As is the case with all rituals, the transformation it produces is both temporary and lasting: when the festival is over and the visitors have gone, the fish will go back to being a mass product and a resource in the hand of a few quota kings. But for another year, many villagers and guests will swallow their anger over the situation, knowing they have nothing with which to reciprocate the quota kings' generosity.

It is tempting to see in the mutability of things the possibility of a different economy; one in which the changing shape of goods allows for the circulation of values other than just monetary ones. Brill's, Phoenix's and Delvenne's contributions to this issue can certainly be read along these lines: in one way or another, they tell of people seizing the opportunities offered by shape-shifting commodities, gifts, singularities or assets. Dobeson's outlook is more pessimistic – the transformation of things may just as easily stabilise existing power relations and inequalities between the winners and losers of the new economy. Perhaps we can make sense of these contradictory views by keeping in mind a point that Nicholas Thomas (1991) makes: that things took on new roles and meaning as they travelled back and forth between the Pacific and Europe does not undo the violence and injustice committed in the course of economic and cultural exchange. But neither can the lives of things be reduced to power and oppression. The fact that things can and do change form not only reminds us that a different economy is possible but also that the present one, too, is not fixed.

Conclusion

What we have sketched out here are three particular but by no means exhaustive ways of engaging with economic things: following their becoming, tracing their movements and mapping their relations with other agencies moving through the economy. Things mutate in various ways: they take on a particular material and calculative form of exchange, shed it, oscillate between competing logics of valuation, merge and combine various regimes of exchange. While the devices and agencies that make markets and the economy (Muniesa *et al.* 2007, Muniesa 2015) are important in shaping things into objects that can be calculated, evaluated and exchanged, it is important to understand the ability to take and abandon form as an intrinsic property of things themselves. Cod, cattle and CO₂ do not idly sit and wait to be formatted and turned into goods. The metamorphosis they undergo to become economic objects is better described as an 'ontological choreography' (Cussins 1996) in which transformations of various entities affect and rely on each other.

Although movement from one form to another is a common trope in economic literature (Bourdieu 1986, Thomas 1991, Tsing 2013), the source of this convertibility is all too often located in a convergence of the logics underlying the various forms: it is because gift and commodity share the same spirit, the argument goes, that they are mutually intelligible (Bourdieu 2013, Callon 1998a). Instead of taking clearly demarcated forms of exchange as given, the articles in this issue each explore the ability of things to take on different forms, asking how goods and valuables produce what we call singularities, gifts, commodities or assets, rather than the other way around.

Each in its own way, the papers in this issue demonstrate the potential of the mutability of things, both analytically and in economic life itself. They show that mutability is not just diagnostic of the contemporary shifts in the global economy: more fundamentally, it characterises the economic life of things in general. The objects of the new economies are indeed different – and yet they are also familiar. What is sometimes presented as a succession of forms in economic history, from primitive gifts to industrial commodities to late capitalist singularities and assets, is in fact a very simplified version of everyday economics. The move from gift economies to market capitalism to the 'society of singularities' (Reckwitz 2020) is repeated countless times every single day. Not so much as a

paradigm shift, however, than as a mundane embedding of things in new logics of exchange (Neyland *et al.* 2018).

Economic things are more than just the malleable stuff of capitalist production: in fact, their propensity to change form and evade the designs imposed on them is one of the driving factors behind what is commonly called cultural economy. To properly assess the state of our contemporary economy (or that of others), we therefore need to develop tools and understandings that go beyond the simple juxtaposing of goods in national balance sheets to trace the chequered biographies of things around which stories of regional and global connections, disruptions and inequalities are written.

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References

- Appadurai, A., 1986. Introduction: commodities and the politics of value. In: A. Appadurai, ed. *The social life of things. Commodities in cultural perspective*. Cambridge: Cambridge University Press, 3–63.
- Aspers, P., 2011. *Markets*. Cambridge: Polity Press.
- Barad, K.M., 2007. *Meeting the universe halfway: quantum physics and the entanglement of matter and meaning*. Durham: Duke University Press.
- Barry, A. and Slater, D., eds., 2005. *The technological economy*. London and New York: Routledge.
- Beckert, J., 2011. Where do prices come from? Sociological approaches to price formation. *Socio-Economic Review*, 9 (4), 757–786. Available at: doi:10.1093/ser/mwr012
- Birch, K., 2015. *We have never been neoliberal: a manifesto for a doomed youth*. Winchester, UK: Zero Books.
- Birch, K. and Muniesa, F., 2020. Introduction: assetization and technoscientific capitalism. In: K. Birch, and F. Muniesa, eds. *Assetization: turning things into assets in technoscientific capitalism*. Cambridge, MA: MIT Press, 1–41. Available at: doi:10.7551/mitpress/12075.001.0001
- Birch, K., 2017. Rethinking value in the bio-economy. Finance, assetization, and the management of value. *Science, Technology, & Human Values*, 42 (3), 460–490.
- Boltanski, L. and Esquerre, A., 2020. *Enrichment: a critique of commodities*. Cambridge, UK: Polity Press.
- Bourdieu, P., 1986. The forms of capital. In: J. Richardson, ed. *Handbook of theory and research for the sociology of education*. Westport, CT: Greenwood, 241–258.

- Bourdieu, P., 2013. *Outline of a theory of practice*. Cambridge studies in social and cultural anthropology 16. Cambridge: Cambridge University Press.
- Callon, M., 1998a. Introduction: the embeddedness of economic markets in economics. *The Sociological Review*, 46 (S1), 1–57. Available at: doi:[10.1111/j.1467-954X.1998.tb03468.x](https://doi.org/10.1111/j.1467-954X.1998.tb03468.x)
- Callon, M., 1998. An essay on framing and overflowing: economic externalities revisited by sociology. *The Sociological Review*, 46 (S1), 244–269. Available at: doi:[10.1111/j.1467-954X.1998.tb03477.x](https://doi.org/10.1111/j.1467-954X.1998.tb03477.x)
- Callon, M., 2010. Performativity, misfires and politics. *Journal of Cultural Economy*, 3 (2), 163–169. Available at: doi:[10.1080/17530350.2010.494119](https://doi.org/10.1080/17530350.2010.494119)
- Christophers, B., 2017. The state and financialization of public land in the United Kingdom. *Antipode*, 49 (1), 62–85.
- Cronon, W., 1991. *Nature's metropolis: Chicago and the Great West* (1st ed.). New York: W. W. Norton.
- Cussins, C., 1996. Ontological choreography: agency through objectification in infertility clinics. *Social Studies of Science*, 26 (3), 575–610. Available at: doi:[10.1177/030631296026003004](https://doi.org/10.1177/030631296026003004)
- Ehrenstein, V., 2018. The friction of the mundane: on the problematic marketization of the carbon stored by trees in the tropics. *Journal of Cultural Economy*, 11 (5), 404–419. Available at: doi:[10.1080/17530350.2018.1461675](https://doi.org/10.1080/17530350.2018.1461675)
- Fairbairn, M., 2020. *Fields of gold. Financing the global land rush*. Ithaca: Cornell University Press.
- Hanson, J.H., 2015. The anthropology of giving: toward a cultural logic of charity. *Journal of Cultural Economy*, 8 (4), 501–520. Available at: doi:[10.1080/17530350.2014.949284](https://doi.org/10.1080/17530350.2014.949284)
- Hawkins, G., 2018. The skin of commerce: governing through plastic food packaging. *Journal of Cultural Economy*, 11 (5), 386–403. Available at: doi:[10.1080/17530350.2018.1463864](https://doi.org/10.1080/17530350.2018.1463864)
- Horkheimer, M. and Adorno, T. W., 2002. *Dialectic of enlightenment: philosophical fragments*. Cultural memory in the present. Stanford, CA: Stanford University Press.
- Kang, H.Y., 2020. Patents as assets: intellectual property rights as market subjects and objects. In: K. Birch, and F. Muniesa, eds. *Assetization. Turning things into assets in technoscientific capitalism*. Cambridge, MA: MIT Press, 45–74.
- Kenney, M. and Zysman, J., 2016. The rise of the platform economy. *Issues in Science and Technology*, 32 (3), 61–69.
- Kopytoff, I., 1986. The cultural biography of things: commoditization as process. In: A. Appadurai, ed. *The social life of things. Commodities in cultural perspective*. Cambridge: Cambridge University Press, 64–94.
- Latour, B., 1996. Do scientific objects have a history?: Pasteur and Whitehead in a bath of lactic acid. *Common Knowledge*, 5 (1), 76–91. Available at: doi:[10.1215/0961754X-7299198](https://doi.org/10.1215/0961754X-7299198)
- Latour, B., 2005. From realpolitik to dingpolitik or how to make things public. In: B. Latour, and P. Weibel, eds. *Making things public: atmospheres of democracy*. ZKM/Center for Art and Media in Karlsruhe. Cambridge, MA: MIT Press, 14–43.
- Lee, S.C., 2020. The moral economy of face: marketized gift and depoliticized solidarity in South Korea's fair trade. *Journal of Cultural Economy*, 13 (5), 579–591. Available at: doi:[10.1080/17530350.2020.1749107](https://doi.org/10.1080/17530350.2020.1749107)
- Marx, K., 1990. *Capital: a critique of political economy*. Vol. 3. London: Penguin Books.
- Mauss, M., 2002. *The gift. The form and reason for exchange in Archaic societies*. London: Routledge.
- Muniesa, F., 2015. *The provoked economy: economic reality and the performative turn*. London: Routledge.
- Muniesa, F., Millo, Y., and Callon, M., 2007. An introduction to market devices. *The Sociological Review*, 55 (2_suppl), 1–12. Available at: doi:[10.1111/j.1467-954X.2007.00727.x](https://doi.org/10.1111/j.1467-954X.2007.00727.x)
- Muniesa, F., et al., 2017. *Capitalization: a cultural guide*. Paris: Mines ParisTech.
- Neyland, D., Ehrenstein, V., and Milyaeva, S., 2018. Mundane market matters: from ordinary to profound and back again. *Journal of Cultural Economy*, 11 (5), 377–385. Available at: doi:[10.1080/17530350.2018.1506944](https://doi.org/10.1080/17530350.2018.1506944)
- Ouma, S., 2020. *Farming as financial asset. Global finance and the making of institutional landscapes*. Newcastle upon Tyne: Agenda Publishing.
- Perzanowski, A. and Schultz, J., 2018. *The end of ownership: personal property in the digital economy*. Cambridge, MA: MIT Press.
- Piketty, T., 2014. *Capital in the twenty-first century*. Cambridge, MA: Harvard University Press.
- Pistor, K., 2019. *The code of capital: how the law creates wealth and inequality*. Princeton: Princeton University Press.
- Polanyi, K., 2001. *The great transformation: the political and economic origins of our time*. Boston: Beacon Press.
- Reckwitz, A., 2020. *The society of singularities*. Cambridge: Polity Press.
- Schubert, J., Böschen, S., and Gill, B., 2011. Having or doing intellectual property rights? Transgenic seed on the edge between refeudalisation and napsterisation. *European Journal of Sociology*, 52 (01), 1–17. Available at: doi:[10.1017/S0003975611000014](https://doi.org/10.1017/S0003975611000014)
- Sinclair, J., 2008. Branding and belonging: globalised goods and national identity. *Journal of Cultural Economy*, 1 (2), 217–231. Available at: doi:[10.1080/17530350802243636](https://doi.org/10.1080/17530350802243636)
- Srnicek, N., 2016. *Platform capitalism*. Cambridge: Polity Press.
- Thomas, N., 1991. *Entangled objects: exchange, material culture, and colonialism in the Pacific*. Cambridge, MA: Harvard University Press.
- Tsing, A., 2013. Sorting out commodities: how capitalist value is made through gifts. *HAU: Journal of Ethnographic Theory*, 3 (1), 21–43. Available at: doi:[10.14318/hau3.1.003](https://doi.org/10.14318/hau3.1.003)

- Tsing, A.L., 2015. *The mushroom at the end of the world. On the possibility of life in capitalist ruins*. Princeton: Princeton University Press.
- Truitt, A., 2021. Banking on gold in Vietnam. *Journal of Cultural Economy*, Available at: doi:[10.1080/17530350.2021.1879210](https://doi.org/10.1080/17530350.2021.1879210)
- Vasantkumar, C., 2019. Towards a commodity theory of token money: on 'gold standard thinking in a fiat currency world'. *Journal of Cultural Economy*, 12 (4), 317–335. Available at: doi:[10.1080/17530350.2019.1614086](https://doi.org/10.1080/17530350.2019.1614086)
- Waldby, C., 2015. The oocyte market and social egg freezing: from scarcity to singularity. *Journal of Cultural Economy*, 8 (3), 275–291. Available at: doi:[10.1080/17530350.2015.1039457](https://doi.org/10.1080/17530350.2015.1039457)