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Value-Rent-Finance

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Abstract

In this paper, we develop a novel interpretation of the internal relationship between value, rent and finance, thereby enabling a new reading of the process of financialisation. As we argue, responding to the important question of how best to conceptualise the relationship between value and finance necessitates an understanding of the internal relations with a third moment, that of rent. We therefore develop a triadic understanding of these three interrelated moments. Crucially, we demonstrate that fictitious capital now actively pursues forms of rent, deepening the interrelationship between value, rent and finance. We conclude with a critical review of the literature on the financialisation of water, showing how the conceptual framework we develop sheds light upon the relations out of which water infrastructure has been financialised, as well as suggesting strategic entry points for its contestation.

Introduction

In an important provocation, Brett Christophers (2018) points to a strange paradox: as research on value theory and nature has flourished, it has done so without appearing to engage with research on the financialisation of nature. The apparent absence of dialogue between these bodies of work appears to confirm Christophers' suspicion that Marxist approaches to value could be at risk when it comes to analysing the efflorescing profits of finance.[i] Willing to take up this "risk", he then develops a rich conversation between value theory and finance by considering the value produced within financial practices. In so doing, Christophers demonstrates that finance does produce surplus value and, therefore, can be analysed from a Marxist value-theoretic perspective. The literature on the financialisation of water appears to confirm the paradox that Christophers observes. Thus, several pioneering accounts of water financialisation (Allen and Pryke 2013; Loftus and March 2016; Bayliss 2017; Allen and Pryke 2017) make explicit reference to value creation, value extraction and the circulation of value without ever clearly specifying what is meant by value: a conversation with value theory thereby appears foreclosed. In what follows, we take up Christophers' challenge, but we do so by arguing that a value-theoretic approach to finance can be enriched by simultaneously taking into account a third moment, that of rent.

Our paper therefore charts a different path than that pursued by Christophers (2018: 331), for whom the production of risk should be viewed as a source of surplus value. Unconvinced by the category of 'fictitious capital' – a claim on future value production – because it suggests that finance is unproductive, Christophers sees the commodification of risk as the best way of accounting for how finance creates value for capital[ii]. The merit of this 'in and against' reading of Marxian value theory is its ability to identify financial services as *commodities* and highlight the exploitation of labour in the technical work required for production of risk bearing assets. Nevertheless, while recognising that the labours involved in "producing fungible globules of risk" can indeed be seen as generative of value, we are not convinced this is a sufficient explanation of the magnitude and constitution of profits appropriated on the back of the financialisation of nature and society (indeed the payment of bills or insurance premiums, as any household will directly experience, is a deduction from present and future value in the wage form: no new value is created). Instead, we would argue that the efflorescence of research on rent testifies to the strategic and intellectual importance of bringing the issues Christophers identifies into dialogue. We do so through what we refer to as the value-rent-finance triad. Just as land and infrastructure are treated as financial assets, their commodification is predicated on *rent.* In this phenomenal form, value is extracted from various forms of private monopoly which, in turn, are actively sought out by fictitious capital.

Stating that rents are actively sought out by fictitious capital should not be confused with the claim – going back to the work of Veblen – that financial or absolute rent akin to profits creates a parasitic relation with industrial capital (see Sotiropoulos, Milios, and Lapatsioras 2013: 16). Rather we follow the internal relation between rent and the circulation of interest bearing capital to unpack the social relations of private monopoly ownership that mediate the capitalisation of revenue streams attached to nature and infrastructure. Doing so significantly deepens our knowledge of how value is extracted from particular material geographies implicated in the 'capitalisation of everything' (Leyshon and Thrift 2007). Indeed, the rent-finance link is suggestive of other geographical contexts in which the revenue streams – or raw materials – of financialisation rest on monopoly ownership in sectors not subject to the competitive equalisation of profit rates. In this vein, we read rent and finance as one-sided abstractions (Elson 1979), or phenomenal forms of value, crystallising in determinant historical and geographical conditions. The crucial problem for analysing the financialisation of infrastructure is to understand why rent and finance take the forms that they do within the capitalisation (valorisation) of the asset.

After conceptualising the value-rent-finance triad we turn in the latter part of the paper to a critical review of the literature on the financialisation of water, showing how our analytic might be put to work. Applying the Marxian categories of monopoly and absolute rent, in the final section we explore existing studies of the financialisation of water in order to demonstrate how value, rents and finance are internally related moments comprising the process of financialisation. While our focus is on water, the triadic structure, we hope, can also serve as a general analytic with much wider applicability in other geographies and in relation to other resources. The paper therefore speaks squarely to the debates around financialisation.

Conceptualising value-rent-finance

Value

As Christophers (2018) notes, work on value theory is flourishing. Thus, several excellent reviews (Huber 2016; Kenney-Lazar and Kay 2017; Kay and Kenney-Lazar 2017) now directly address the question of how Marx's theory of value might provide a more comprehensive analysis of nature's political economy. Recognizing that the source of value is labour, expressed in the socially necessary labor time of production, this literature concurs that it is capitalism, rather than Marxism, that does not 'value' nature; in so far as Marx is quite explicit that nature is a source of wealth appropriated by capital. Contributions by Walker (2017) and Moore (2015), alongside further substantive contributions from Kay, Kenney-Lazar, Huber, Robertson and Wainwright confirm that value theory is very much back on the agenda.

Marx's theory of value, as Huber (2016: 40) writes, "is a critical theory to explain and critique the conditions of labour in a society characterised by generalized commodity exchange, that is, a society in which most people can only live through access to money and commodities". Laying out five theses through which such a critical theory might speak to questions of nature and its exploitation, Huber is able to demonstrate the importance of Marx's value theory for a range of contemporary debates around conservation, payment for ecosystem services and social reproduction. With regard to the latter, he turns to Jason Moore's (2015) contributions to Marxist value theory in which the former develops a conversation with feminist critiques in order to better understand capital's reliance on cheap inputs (of labour, energy, food and materials) for its own expansion. Elsewhere, Walker (2017) develops a sensitive critique of Moore in order to better express the manner in which "value is produced by the dialectical unity of labour-nature", an approach that requires a unified "labour nature time".

Andriana Vlachou (2002, 2004) takes a somewhat different approach, basing much of her analysis around the appropriation of rents and the manner in which 'natural' conditions enable reduced or increased rents. Within this approach, nature is an important source of wealth for societies, and is essential for human reproduction, but it cannot create value since no labour was used to produce it (Vlachou 2002: 173). In drawing out this nuance, Vlachou emphasises not only the connection between surplus value and rent but the way in which socio-environmental change has important economic implications for the operation of capitalism.

As with Vlachou's contributions, geographical engagements with value theory stretch considerably further back than this latest (re)turn. Indeed, Marx's value theory can be seen to have profoundly influenced the writings of Harvey (1982), Smith (1984) and many others. More recently, in Mann's (2007, 2010) writings and in Huber's work (2016, 2017) (as well as, at times, in the work of Henderson 2013) there has been a generative turn to 'value form' analysis, in particular the work of Moishe Postone (1993) who makes one of the most articulate and advanced arguments for an understanding of value as a critical category. Overcoming this critical category as a determinant mode of production becomes a central aim of political practice. Postone thus moves away from a critique of capitalism from the standpoint of labour to a critique of labour in capitalism.[iii] There are many affinities in such an approach with the argument made by Diane Elson (1979) in her ground-breaking essay on "The Value theory of labour" and it is no surprise that Elson's work has garnered renewed attention in many of the most recent geographical essays (see Labban 2014). Perhaps the clearest influence has been on Huber (2016) who seeks to develop a "value theory of nature" along the same lines as Elson's original essay.

One of the many reasons why Elson's framework has received renewed attention is her remarkable ability to explore value theory methodologically. The entire essay therefore represents an exercise in applying Marx's dialectic to better understand value theory, taking this methodological understanding of value theory as a political challenge to the forms of exploitation highlighted within. Elson's political reading of value theory and her focus on the different aspects of value are crucially important for the analysis we develop. It is therefore worth spending a little time reviewing Elson's overall approach as it forms the method for the triadic reading of value theory we then apply to our re-reading of financialisation.

Elson begins her text by emphasising what value theory is not. Here she distinguishes her approach from those that find within it: a proof of exploitation (even if Elson accepts the political importance of such an argument); an explanation of prices; a theory that distinguishes Marx's approach from Ricardo's around its consideration of abstract labour, and so on. Huber (2016) follows a similar route in the first two of his theses on a value theory of nature in which he states that "Value theory does not refer to all values" and "Nature does not contribute to value". The error that Elson detects in each of the different understandings of value is one of "misplaced concreteness", an error that Christophers (2018) perhaps falls foul of in his attempt to couple financial risk with the exploitation of labour performed beyond the workplace. Elson therefore claims that other interpretations misunderstand value theory

"as a relation between certain already determined, 'given', independent variables located in the process of production, and certain to-be-determined, dependent variables located in the process of circulation" (1979: 130)

Labour time, value and exchange value should not therefore be understood to be three distinct variables. Elson's alternative is to develop a philosophy of internal relations (see Ollman 1973) that analyses different moments (or 'aspects' as Elson refers to them) crystallising in different forms according to historically and geographically determinant conditions. In such a reading, labour time becomes an "immanent" measure of value that should be read in relation to the "external" measure of value in the form of money. In many respects, we would argue that Elson's work can be used to critique more simplistic analyses of financialisation as well as to critique more nuanced approaches that appear to take categories such as 'value' and 'finance' as discrete. Instead, the triadic analysis that we go on to develop seeks to understand the phenomenal forms in which value comes to appear. While Elson's analysis focuses on different aspects of labour – social and private labour, alongside abstract and concrete labour – her approach to value, along with the value-theoretic method that she lays out is of real use in furthering understandings of value, rent and finance.

Just as the different aspects of labour that Elson focuses on can be read as one-sided abstractions, so rent and finance can be read as one-sided abstractions or phenomenal forms of value. The crucial problem for analysing the financialisation of infrastructure is to understand why rent and finance take the forms that they do. Read politically, the challenge is to understand the broader social formation in which the process of production dominates households, water access, and social reproduction rather than human activities dominating processes of production. To return to the spirit of Elson's (1979) and Postone's (1993) critique of labour theories of value, the overcoming of capitalism necessitates the abolition of value both as a social form of wealth and as a determinant mode of producing.

Honing in on perhaps the central value-theoretic contradiction, Postone argues that financialisation "can be understood as an unintentional effort to abolish value within a framework that remains structured by value. As the accumulation of value slows down, the search for wealth becomes perversely reflexive, like an autoimmune disease – it begins to feed on the substance of society and nature" (Postone 2017: 52).

Rent

While we agree that financial accumulation is accumulation, a process that "can only proceed alongside the extraction of value in the labour process" (Labban 2014: 478), a further way in which this feeds on society and nature can be viewed through another moment or phenomenal form of value, that of rent. Indeed, the geographical sensitivity of the capital-labour dialectic – representative of form-analytical Marxism – can be deepened by encompassing the rent-land nexus (Lefebvre 1991; Coronil 1997). Following the heterodox spirit of our triad, the value-theoretic foundations of rent – the divergent formation of values and prices – are salient for a variety of material and immaterial "commodity forms" in contemporary financialised capitalism "which have a price but no value" (Harvey 1982: 18).

Returning to Marx, rent is a payment – a concrete form of surplus value – commanded by private monopoly ownership "to the exclusion of all others" and the different categories of rent capture the ways in which this "monopoly is economically realised, valorised" (Marx 1991: 752-756). Unlike industrial commodities, in the modified value relations of nature based production, it is the price of commodities produced on the least productive (marginal) lands for which there is solvent demand that determine market price (Iñigo Carrera 2017). As a result, capitals competing to produce on lands of superior quality or location will be forced to cede extraordinary profits, above the margin, to the landlord in the form of 'differential rent' valorised through a higher rental price (Marx 1991: 799-811).[iv] In addition, owing to the barrier of landed property, capital must pay an additional portion of surplus value to access even marginal lands in the form of 'absolute rent'. The source of this surplus value derived from the lower organic composition of capital (the ratio of labour to capital) within agriculture, allowing landowners to claim 'absolute rent' without agricultural products selling at prices above their value. While the value constitution of this category has been the subject of ongoing controversy, as we explain below, it does not rest on the technical conditions of production but the barrier created by private monopoly. The third, and much less controversial, category is that of monopoly rents, according to which the owners of special and limited resources can charge a monopoly price formed "independently of the price of the product as determined by prices of production and value" (Marx 1991:910). Therefore, for analytical purposes, and to oversimplify somewhat, differential rent is mediated by competition within a sector, absolute rent revolves around class power and barriers erected against competition (and the equalisation of profit rates), and monopoly rent pertains to the unique qualities of land or a non-substitutable character of a commodity.

Although by no means uniform, recent rent-theoretical insights can be gleaned from areas such as mining (Emel and Huber 2008); fisheries (Campling and Havice 2013); land and water (Greco 2015); woodlands (Gunnoe 2014); rural sociology (Elden and Morton 2015); urban monopoly rents (Charnock et al 2014); housing markets (Smet 2015); the *geopower* of the capitalist state (Parenti 2016); tribal land systems (Capps 2016); the New International Division of Labour (Charnock and Starosta 2016); global commodity chains (Purcell et al 2018); and biodiversity offsetting (Apostolopoulou et al 2018). This empirical diversity illustrates the distance the literature has travelled from earlier debates which bifurcated over the need for a general theory of rent and mid-range typologies equipped for specific empirical analysis of urban land and real estate markets (Fine 1979; Ball 1977, 1980; Lauria 1984; Ball 1985; Haila 1990; Kerr 1996; Jager 2003; for a new take see Smet 2015). In many ways, the gulf between totalising theories, varying degrees of fidelity to value theory and those interested in specific empirical questions points to why rent has long been a knotty concept within Marxian political economy. Yet, as Ward and Aalbers (2016: 1780) put it, "the new challenge looks to be to take the categories of rent beyond land in the analysis of capitalism increasingly reliant on flows of rentier income through financial instruments" (for a related argument addressing agrarian debates, see Vergara-Camus and Kay 2017: 247).

Addressing urban political economy and political ecology respectively, Moreno (2014) and Andreucci et al (2017) have taken up such a task. Moreno (2014: 260-2) argues that “rent has become the operative form of social value in a spatial system of accumulation dominated by financial interests” and, as a result, “the urban process therefore becomes a conduit through which financial intermediaries are able to take commissions, fees, bonuses, and so on directly out of the urban circulation of capital” (Moreno 2014: 262). Similarly, Andreucci et al (2017) propose that all forms of Harvey’s (2003) widely cited ‘accumulation by dispossession’ are constitutive of the appropriation of surplus value in the form of rent, a process they name as ‘value-grabbing’. While both papers highlight the importance of rent in the era of financialisation, they also remain at a high level of abstraction without specifying the categorical foundations of how rent is captured. Lest we forget the legacies of rent-theoretical research, the explanatory power of rent theory depends on specifying in practice how rent is “captured under the conditions theoretically specified in each category” (Harvey and Chatterjee 1973: 34).

In the urban context David Harvey was clearly wrestling with the value-theoretical implications of ground rent in two pioneering papers which analysed the class power of landlords over scarce resources and the emergent power of finance capital as a spatial entity (Harvey and Chatterjee 1973; Harvey 1974). Without resolving the theoretical issue, Harvey settled on the “tentative category” of “class monopoly rent” as “one form of absolute rent” to shed light on the abuse of class based “monopoly power over land and resources” which redlined and exploited urban communities (Harvey 1974: 240). Yet, the heuristic implications of the category were subsequently side-lined when Harvey (1982: 333) confronted the problem to “define a coherent theory of ground rent within the framework of value theory itself.” This is significant because the resolution of this problem is actually embedded in what has become a highly influential, and widely cited, contribution to the financialisation (of land/property) literature: “the tendency to treat the land as a pure financial asset” (1982: 347). However, as is often the case with the selective engagement with landmark texts, the substance of Harvey’s theorisation and the link with rent theory has, largely, gone unremarked.

Harvey's solution was in line with the 'new rent theory' (Haila 1990) which prioritised the category of differential rent, side-lining absolute and monopoly forms of rent as "small and sporadic" (Harvey 1982: 361). By incorporating the dynamics of finance in rent theory through the concept of 'fictitious capital', Harvey was able to argue that the circulation of interest bearing capital "in search of enhanced future ground rents", promotes activities on the land that conform to "highest and best use" which makes "the appropriation of rent socially necessary" (Harvey 1982: 368-9). This allowed Harvey to analytically trace the flow of urban differential rents as an uneven and crisis prone mechanism in the production of capitalist space, but the 'positive' coordinating role assigned to rent – in the form of interest bearing capital – endowed the analysis with a heavy dose of 'functionalism' (Kerr 1996: 73). Although the earlier connection between "high finance and the rent extraction of monopoly rent" was hinted at (Harvey 1982: 370), in more recent work Harvey has confirmed that he believes "absolute rent simply does not work" (Harvey 2009: 91) and instead differentiates between direct (prime real estate or works of art) and indirect (commodities and services produced through the unique attributes of the land/location) forms of monopoly rent (Harvey 2004).

Revisiting these nuances is not an excuse to indulge in Marxiology, but is of strategic importance in thinking through the rent-land nexus that underpins contemporary monopoly forms of ownership such as a sovereign wealth fund owning large swathes of London's housing stock, a pension fund owning distant urban infrastructures or hedge funds driving land grabbing in the Global South. Indeed, following 2008, as a way out of an overaccumualtion crisis the financial sector is switching from lending money to direct ownership of land and urban infrastructure for the extraction of rent. As Park has pointed out "urban spaces, with their fragmented uses and specific features, make absolute and monopoly rent important" (Park 2014: 100). Therefore, for the purposes of our intervention, it is important to note a reappraisal of absolute rent. In the absence of technical conditions of backwardness (low organic composition of capital) redolent of 19th century agriculture, absolute rent exists wherever a rentier or asset owning class can impose, or benefit from, barriers to competition and capture surplus value from a monopoly price of the product (Economakis 2003; Ramirez 2009; Park 2014). Absolute rent has been used to think through carbon emissions allowances (Felli 2014); pharmaceutical patents (Zeller 2007); seed patents

(Vergara-Camus and Kay 2017); and electricity and water privatisation in post-crisis Greece (Konstantinidis and Vlachou 2017:49). Such enclosures give rise to all manner of rent bearing revenue streams increasingly packaged as financial securities – that is commodities with a price – sold in the form of fictitious capital for the (future) income they will yield.

Seeking to understanding the link between rent and finance, Haila (2015) has proposed the concept of derivative rent to capture how "the yield from land titles are securitised" and "traded on the market as a financial instrument". Although derivative rent pertains to the housing market, and is developed in line with Harvey's discussion of the competitive formation of differential rents, the rent-finance link is suggestive of other geographical contexts in which the revenue streams, or raw materials, of financialisation rest on monopoly ownership in sectors not subject to the competitive equalisation of profit rates. Therefore, in light of new research into 'rentier' capital accumulation, we suggest that it is not only that land and assets are treated as pure financial assets but, and perhaps more importantly, that *rent,* extracted from various forms of private monopoly, has increasingly been pursued by fictitious capital.[v] This insight has the potential to deepen how we analytically mobilise rent in order to understand how the extraction of value is operating under new forms of finance led private monopoly ownership. Therefore, if, as Harvey has continued to implore, we need to trace out the inner relation between rent and the circulation of interest bearing capital (cf Harvey 2013: 183), the extent to which this can take place within fragmented spaces of absolute monopoly becomes crucial for contesting and politicizing the rise to prominence of finance. It is important to note that – for a host of reasons, not least the conditions of class struggle against finance and the private ownership of land and infrastructure – as a form of fictitious capital, the hoped for revenue stream to be captured as rent may never materialise (Kerr 1996: 86, fn1). We now turn to the third one-sided abstraction assumed by value – finance – through a brief critical review of recent research focused on the creation and capture of value by finance capital in environmental, agricultural and urban markets.

Finance

With concerns about the reduction of 'financialisation' to an empty signifier (Christophers 2015a) or to a concept of dubious analytical value unable to explain 'complex financial operations in the real world' (Michell and Toporowski 2013), scholars have called for a refocusing on finance, in order to break it out of the 'black box' (Ouma 2015). Being more attentive to the technicalities of finance means unpacking the physical basis of earnings that become central to securitised flows of funds generated from different asset classes (O'Neil 2018).

A recent special issue (Ouma et al 2018:2) captures a concern for epistemologically variegated and empirically fine-grained accounts that unpack the realization of financial profits (M') without losing site of the "use value (C') from which a more abstract financial value is derived." Addressing how nature and resource based revenues are calculated by finance, the papers shed light on the complexities, behaviours, processes and material practices that play out across socio-environmental issues like tradable permit systems (Bigger 2018), forest based carbon sequestering (Asiyanbi 2018), moral judgments attached to farmland investments (Sippel 2018) and the 'values' that inform the rationales of financial investors in agricultural land (Kish and Fairbairn 2018:585). Even though there is acknowledgement that the income of financial capital is "probably more accurately rents" (Ouma, Johnson and Bigger 2018: 501) the analytical basis of this category within Marxian political economy is eschewed and just one of the papers concludes with a remark about "ground rent and land ownership concentration" that can be included within an "expanded moral critique" (Kish and Fairbairn 2018: 585). Such process orientated investigations highlight a growing synthesis between social studies of finance and 'operations of capital', a synthesis which provides an antidote to the uncritical technical descriptions of the former and the perceived, abstract conceptualization of capital favoured by the Marxist political economy literature (Ouma 2016).[vi]

As Ward (2019) has pointed out, relational approaches and networked ontologies are also prominent within the literature on the interface between finance capital (liquidity) and urban infrastructure (fixity) (see Knight and Sharma 2016; O'Neill 2013; Torrance 2009). In this vein, relational economic geography has shed light on the sociological roots between finance and the real economy, arguing that 'it is only through their integration that the social relations of finance and the ways in which its forms of calculation affect economic processes can be understood' (Pike and Pollard 2010: 35). According to O'Neil (2018) this is a two-stage process: the metrification of services provided by the asset (e.g. household water bill) and the creation of property rights over the asset and revenue stream. The latter determines value in financial terms and enables its yield to be priced against other asset classes in a process of 'commensuration' (Allen and Pryke 2013: 423). Synthesising insights from science and technology studies (STS) and urban geographical political economy, Fields (2017) has shown how financial actors have initiated and normalised the creation of a new asset class around single-family rental housing units. The construction of such markets permits the calculation and performance of value and new modes of capital accumulation that rely on the extraction and securitisation of rental income. Also looking closely at the role of finance in urban development, but eschewing rent maximisation strategies as an analytical point of entry, Guironnet et al. (2016) argue that turning urban property into financial assets is contingent on power relations and financial expectations propagated by the developers themselves.

Such work has therefore produced strong descriptions of how finance works to value things; however, the theoretical connections with the historically and geographically determinant conditions of value appropriation remain weak. Here we have in mind the relational and contingent approach to value and (in some) descriptive references to *rent* as the source of financial income. If, as this literature suggests, assets circulating in urban and agricultural land markets generate financial income, and this income can by understood as rent – what questions does this raise about the source of the value which, in various ways, is created, performed, managed or calculated? Answering this question, we believe, requires tracing out how the valorisation of financial assets tap into streams of value produced elsewhere, and how they are deducted from society as a whole in the form of rents. Indeed, the value-rent moments of the triad centre forms of struggle in contrast to the elision of such struggle in a one-sided focus on finance.

It is telling that across much of this literature there is an effort to retain certain critical political economy categories but also a tendency to detach them from the class relations of capitalist development. A notable exception is Ward (2019) who has developed a class-relational reading of assetisation as the production of rent-bearing property. Indeed, the Marxian work on finance has done much to retain a focus on the class-based processes of exploitation and appropriation which mediate finance's penetration into new spheres of social and natural world (Bryan et al 2008; Lapavitsas 2013; Vlachou and Pantelias 2017). When finance mediates the buying and selling of assets in (temporal and spatial) separation from physical ownership, then interest bearing capital assumes the form of what Marx termed 'fictitious capital'. The very use value of money is that it can be lent to make more money (money capital) and its mediation by finance capital makes tenuous the geographical links with the sites of value extraction. Yet valuation practices used by finance in the creation of assets do not create value, even though the resultant property titles are commodities that circulate at a price. Indeed, understanding fictitious capital as "the accumulation of drawing rights over values that are yet to be produced" (Durand 2017:4) reveals that the buying and selling of "titles to future revenues of any sort integrates other aspects of distribution" (Harvey 1982: 285).

As Bryan et al. (2015: 318) have argued the emergence of a distinctly "capitalist finance" has seen "the real subsumption of labor to finance, in which households (and their utility bills or mortgage payments) become directly subject to calculative imperatives of capital" giving rise to "processes of production-beyond-the-workplace". However, rather than reading this as a new form of exploitation, we believe this process of real subsumption marries with Fine's (2013: 55) 'extensive' moment in the expansion of interesting bearing capital (as a concrete form of fictitious capital), attaching itself to new forms of value appropriation in the accumulation of capital. As stressed above, such a process implicates internal relations between interest bearing capital and rents, especially when the latter is extracted from relations of distribution. Our proposed approach therefore has the potential to unite the descriptive detail of the technicalities of finance with a more generalizable analytic that can serve as the basis for future research. We are now therefore in a position to briefly reflect on what we mean by 'financialisation'.

Financialisation

Having teased out the concrete abstractions comprising the conceptual triad outlined above, it now becomes possible to work "towards a reproduction of the concrete by way of thought" (Marx 1973: 101). Financialisation is therefore not the point of departure in our analysis. To quote Ouma (2016: 82), we don't see financialisation "as an abstract force *sui generis*" and it does not morph in our analysis "from *explanandum* into *explanans*". Instead, following Marx in the *Grundrisse*, we aim to reproduce the concrete in thought as "the concentration of many determinations, hence unity of the diverse" (Marx 1973: 100). Working in such a way enables a more precise focus on the internally related moments comprising a range of different phenomena, from the wide range of enclosures now being enacted through land grabs to the transformation of public infrastructures into financial assets and the integration of social reproduction into the circulation of interesting bearing capital. Crucial to such an analysis is an understanding of the rise of a growing band of global rentiers – resembling the "motley group of urban rentiers" identified by Massey and Catalano (1978) previously. Identifying from where and how this motley group has emerged requires a reappraisal of the circuits of value extraction in the form of rents within the global economy.

The appropriation of rents may not be central to all forms of financialisation; nevertheless, an analysis of rents is crucial when seeking to understand how revenue streams can be securitized and sold on as interest bearing capital through landed and institutional barriers of private monopoly over resources. Importantly, as the now voluminous literature on financialisation attests, this stripped down analytic realistically applies to most circumstances of global neoliberal enclosure. Rent clearly predates the onset of 'financialisation': as a social form through which value moves, is captured and distributed, the social relation manifest in rents extends back to the feudal era, emerging, however, as a more specific social relation with the transition to capitalism. The rise to dominance of finance has, nevertheless, opened up new opportunities to appropriate surplus value, removed from payments for the use of land (Ward and Aalbers 2016). Indeed, even a cursory review of the financialisation of food, agriculture and land grabbing literature (Ouma 2016; Fairbairn 2015) suggests that rents play a huge and under-researched role in the transformation of socio-ecologies. Seen in this light, the novelty of 'financialisation' lies less in a structural transformation of capital accumulation or the new forms of value production and capital accumulation that are often equated with the term. These trends can be read as financialisation's *form of appearance*. Instead, the novelty of financialisation – when mediated by financial products that permit the hands-off ownership of land, resources and infrastructures – may well lie in the penetration of rent-extraction mechanisms into new spheres of social reproduction and everyday life. In Postone's (2017: 52) terms "… the crisis of value production is masked by the financially mediated attempt to transform more and more dimensions of life into the 'raw materials' of price and profit – into forms of purported wealth that supposedly will guarantee ever more complex so-called financial instruments, as if such 'wealth were independent of value in capitalism".

Theorising the financialisation of water

Having constructed such a conceptual framework, we now consider the contemporary interface between value-rent-finance in the case of water, focusing on a series of enclosures comprising what is generally referred to as financialisation[vii]. There are now several excellent analyses of the financialisation of water and water infrastructure (Bayliss 2014, 2017; Loftus and March 2016, 2017; Loftus et al 2019; O'Neil, 2018; Pryke and Allen, 2017). Nevertheless, each is vague when it comes to the relation between value and financialisation and each thereby replicates the problem identified by Christophers (2018) in lacking an adequate explanation for the efflorescing profits realised within this distinctive phase of the political economy of water.

For example, Kate Bayliss (2017) has developed one of the most thoughtful and incisive analyses of UK water financialisation in her consideration of how revenue streams are linked to households in multiple ways, as well as how financial methods can be "used to increase surplus extraction" (2017: 384); however, throughout her analysis, the source of this "surplus" is never brought to the fore. While consistently strong on the details of shifting pricing regulations and also bringing in questions of rent (2017:391), the value relations that enable this rent capture are unclear, as is the relation to profits. In a different epistemological register, and drawing on an empirical case in California, Allen and Pryke (2017) investigate the 'value model' – based on extraction through interest and dividends paid, as well as multiple fees – which underpins the financialisation of a piece of drinking water infrastructure.[viii] In this performative reading the calculations of various actors across the 'topological spaces' of finance make value what it is; but, as 'value' itself is never defined nor elaborated conceptually, the theoretical status or analytical work that the concept of value performs remains opaque.

Without clarifying the use of concepts or the relations between finance and value, existing studies tell us little about the material processes making up financialisation. In what follows, we therefore draw on this important literature to substantiate our broader theoretical claim that *rents extracted from households are now being actively pursued by fictitious capital*. Following our conceptual framework, we develop these claims in two analytically distinct but internally related moments organised into the following subsections: the formation of water prices (monopoly rent); and the financialisation of water revenue streams and infrastructure (absolute rent). Therefore, rather than the financial processes having "little connection to the operational side of the business", by unpacking the feedback loop between these two processes, we can better identify the monopoly power and rent extraction that masquerades as 'value creation' while underpinning the rent-based "redistribution of value that favours investors over customers and households" (Allen and Pryke 2013: 420).

The formation of water prices (monopoly rent)

Along with several other consumer regulators in the UK, Ofwat, uses a system of price-cap regulation. Price-cap regulation was developed for the UK's newly privatised telecommunications sector in the early 1980s and is most simply expressed through the formula RPI-X, in which RPI refers to the Retail Price Index as a measure of inflation and X refers to the expected efficiency savings within a given sector over a specified period. In simple terms, the model is thought to provide incentives for utilities to operate more efficiently than the average expectation across their sector. Based on such assumptions a share of efficiency savings should then be passed on to the consumer through cheaper bills and enforced through the regulator. Price reviews – in which a new price cap, based on RPI-X – are conducted every five years in the water sector. A set of expected outcomes comes with each price review, including expectations for investments over the five-year period. Thus, RPI-X is better expressed as RPI+/-K where “K (short for K factor) is the price limit that represents the net adjustment, taking into account both expected efficiencies and changes in outputs or outcomes to be delivered” (OFWAT 2010: 12). Price cap regulation is said to mimic competition, thereby weakening the scope for monopolistic activities by creating ‘market forces’.[ix] By measuring price controls against company performance and customer service standards, prices can be reduced, imitating the loss in revenue that companies would incur if customers switched supply in a competitive market. While bills have risen significantly since privatisation (the Cave report, commissioned by Ofwat, claimed a 42% rise in real terms by 2009), efficiency savings are also said to have been built into the pricing system. Nevertheless, as Ford and Plimmer (2018) note, these equate “to an annual productivity improvement of just 1 per cent…below even the anaemic 1.5 per cent average rate for the UK economy over the same period.”

While appearing to mimic competition, price cap regulation hides a set of political decisions as well as masking the capture of monopoly rents. Monopoly rent is formed (and expressed in a monopoly price) when the impairment of competition is due to some natural feature, such as the limited opportunities for water catchment and abstraction (something quite rightly shown to be a socio-ecological limitation by many political ecologists (Swyngedouw 2004). Predating the most recent wave of financialisation, these rents are clearly acknowledged within the mainstream literature: both the Cave report (2009) and subsequent efforts to develop “second-generation regulation” (Stern 2010) therefore seek to counter the formation of rents within vertically-integrated monopolies. Confirming Bakker’s claim (2003) that water is an uncooperative commodity, resistant to competitive pricing, both Cave and Stern’s proposals for second-wave regulation seek to force water to cooperate.

Thus, an independent monopoly price is created as an expression of a highly political process: its very existence and magnitude depend upon a correlation of class forces ensuring that utilities acquire the character of monopolies, protected from competition and able to extract rent for the benefit of shareholders. The ultimate clients – households – underwrite the profitability of the asset. Elisa Greco (2015) captures this process well, albeit in a different context, writing that long-term water licences “can generate rent” insofar as property titles “quantify and thus justify in exact forms their price on water markets”. Approaching things from this angle “problematizes the connections between valuation processes and value from a political economic perspective” (Greco 2015: 39). Rent is therefore the materiality behind the valuation process which underpins the commodification of water.

Monopoly rents facilitated by the regulator can also be found within the Revenue Correction Mechanism (RCM) introduced by Ofwat to protect companies in the event of falling consumption (units sold) when water meters are introduced. As Bayliss (2017:391) highlights the RCM permits utilities to increase prices if water consumption falls. In practice, enforcing the RCM can be viewed as the regulator protecting the very high debts of securitised water companies. In Bayliss’ terms, the RCM can be seen as a process of “rent extraction by private equity firms” that is facilitated by the regulator (ibid).

The regulatory framework currently mediates conflicting interests and contradictory objectives. Indeed, a small change in ‘K’ can have a significant effect on water prices. The level at which ‘K’ is set embeds and expresses a series of assumptions around financing needs and costs. Taking place every five years, the last two pricing reviews (2009 and 2014) have occurred against the financial crisis when it was assumed that financing costs would rise in coming years; however, on the back of Quantitative Easing and historically low interest rates, utilities have reaped large profits from price-cap regulation based on incorrect assumptions over the cost of capital. Such serious misjudgements demonstrate that the regulator is deeply compromised. This compromised role becomes clearer when one considers Ofwat’s responsibility in ensuring financeability: prices must be set at a level from which utilities can still raise sufficient funds to finance investment. Utilities also need to maintain a credit rating that is ‘investment grade’. As seen in recent years – in particular in the case of Thames Water – increasing debts can put downward pressure on credit ratings. Ofwat appears to allow price increases in order to protect the credit ratings of utilities. The ability of firms to pay back debts built on securitised water bills requires a highly predictable regulatory environment. These converging processes all seem to suggest that Ofwat is not external to the credit rating process and, paradoxically, the high debts of water companies serve as one of the best defences against tighter regulation.

In summary, owing to the system of regulation, unit pricing of water does not correspond to its value: rather the pricing process conceals the formation of monopoly rent. Water's biophysical – unique and non-substitutable – character mitigates price competition and market exchange, resulting in vertically integrated monopolies that exercise control from water abstraction to the household tap. These monopoly conditions establish a (social value) market price above (individual value) prices of production, ensuring the profitability of the most expensive (marginal) and debt-laden providers. In addition, as explained above, property rights created by the divestiture of water infrastructure imitate the class barrier posed by landed property over natural resources and, therefore, suggests the further institutional existence of absolute rents.

Financialisation of water revenue streams and infrastructure (absolute rent)

While some of the higher prices witnessed within the water sector post-privatisation in England and Wales can be interpreted as monopoly rents[x], this does not fully capture the significant increase in company profits following financialisation. Building on the conceptual triad developed earlier, we argue that interpreting these increases requires turning attention to absolute rents. The formation and extraction of absolute rent also seems a helpful way to further unpack what Allen and Pryke (2013: 423) argue lies behind the financialization of water: "not only the power to mobilise funds at a distance but also the ability to securitise revenue streams in order to channel funds to investors, as well as refinance existing debts".

Key to this task is unpacking the rentier basis of "gearing" (ratio of debt to equity). As Sir Ian Byatt, former head of OFWAT, has remarked "what produces dividends now is getting the capital base up, it's an unholy alliance between politicians and capital markets" (Plimmer and Espinoza 2017). Gearing rewards companies for spending money on capital investment whether or not it is in the interest of customers, while at the same time reducing operating capital, wages and pensions contributions.[xi] For example, the investment of unequal amounts of capital (between water companies) on infrastructure raises financial profits realised in the form of dividend payments. A stark example of this process is the new £4.2 billion Super Sewer (the Thames Tideway Tunnel), eulogized as an engineering marvel akin to the finest achievements of Bazalgette in the Victorian era. As Loftus and March (2017) show, the super sewer can be read as a debt based incentive to charge customers excessive prices. Following the forensic financial investigation conducted by Pryke and Allen (2017), there are also clear parallels with the Carlsbad Desalination plant; a form of infrastructure geared towards bondholders in which financialisation has transformed a fixed infrastructure into liquid assets. In their account an important link is drawn between 'added value' and the 'value extracted' from the unit price of water – 'roughly twice that of the most readily available source' which is 'distributed to bondholders globally' (ibid: 13). While this is seen as one part of a wider performative process of value creation, running Christophers' 'risk', this could be considered as the 'under-remuneration' of labour beyond the workplace, providing a source of surplus value for finance, as households are exploited via high water prices to underpin the value of the asset. Yet as we have argued, locking in future unit water prices also functions as a mechanism of rent extraction, setting the terrain for dependable revenue sources around which interest bearing capital, as a form of fictitious capital, is mobilised to appropriate value from the capitalisation of infrastructure.

Therefore, seen through the value-rent-finance triad, the securitisation of future water bills will, in part, be based on the anticipated future extraction of rents that form the basis for the extensive accumulation of fictitious capital (Fine 2013). In this way – mediated by the capitalisation of water infrastructure – interest bearing capital penetrates household costs (in the form of utility bills) which become "subject to the calculative imperatives of capital" (Bryan et al 2015). This feeds back into the first moment, as companies become "too indebted to be properly regulated" (Bayliss 2017: 390) and securitisation comes to represent "a claim against the cash flows from household water bills in the future, that is, money for which customers have yet to be billed" (Allen and Pryke 2013: 427). In short, a class of rentiers creates financialised absolute rent under the façade of the regulator's attempt to introduce 'competition'.

The private monopoly over this revenue stream also generates fees and commission charged to those investors (money-capital) attracted by inflation hedged long-term yields. In many cases investors are even willing to pay a price over and above the regulated asset value (RAV) in order to acquire stakes in the water utilities (Bayliss 2017: 389). An additional strategy of increasing financialised absolute rents, along with fees and commission, is through further rounds of 'ring-fencing' securitised debt. This seems an apposite way to explain how dividend payments can exceed after-tax profits – which are also used to pay interest on debts so further rounds of borrowed money (intensifying gearing) can be channelled into dividend payments (Allen and Pryke 2013: 432). With the entry of the Macquarie group in Thames Water in 2006, a further debt based institutional barrier was erected around the revenue stream. As Mazzucato (2018: 109) writes "the aggressive acquisition of post-privatisation assets has made Macquarie one of the world's largest infrastructure investors, securing additional debts against these assets has seen more of their revenues channelled into interest payments" (Mazzucato 2018: 109).[xii]

The securitisation of debt backed by household bills unites the two moments in the actions of financial intermediaries and investors. As Pryke and Allen (2017:5) have shown investors have also been attracted by high internal rate of return (IRR) on investments. IRR is a measure of the overall rate of return on an investment over time (when factoring in both financing options and cash flow): "[I]t is a measure that, for investors, reflects the investment value over and above the market value of an asset". This way, "engineering" by well positioned intermediaries "devise novel techniques for creating and capturing value" (ibid). However, "engineering" access to investment values above market value begs the deeper question of how such surplus profits come to be "embedded" within an asset. Such techniques, as we have demonstrated, must presuppose the existence of value, in the phenomenal form of rent – i.e. value already guaranteed by future projected water prices is tapped into and extracted/distributed by financial intermediaries, who in turn generate fees by charging a price to access a stream of rental income. The former is derived and secured by the future monopoly price of water and the latter is derived from the private ownership of this revenue stream, the title to which permits the valorisation of absolute rents in the present. Securitisation, pace Pryke and Allen (2017), in this sense, is less a process of adding value (although this is the form of appearance in the present), and is more about capturing rent. Analysing securitisation in this manner sharpens our ability to track how the institutionalised redistribution of value through rent and interest payments which are repackaged – as interest bearing capital – in financialized circuits of fictitious capital formation and circulation (Swyngedouw 2012).

Conclusion

In her brilliant critique of marginalist economics, Mariana Mazzucato (2017) quotes Oscar Wilde: a cynic is one who knows the price of everything and the value of nothing. The resurgence of interest in value theory would seem to challenge such cynics, reasserting that value matters. Nevertheless, the process of financialisation – in which the profits reaped by a burgeoning financial sector seem to far outstrip those of a 'real economy' – appears to suggest that in all the excitement over value theory (some) Marxists have missed the point. Christophers (2018) is therefore right to suggest that it might be worth the risk in interrogating value theory when it comes to questions of finance. Nevertheless, in rising to this challenge, we come to somewhat different conclusions. These conclusions arise from our interrogation of the literature on the financialisation of water. While accepting that the labours involved in "producing fungible globules of risk" can indeed be seen as generative of value, we are not convinced this is a sufficient explanation for the super-profits now witnessed in the water sector and paid out in dividends by several of the largest utilities in England and Wales. Instead, we argue that value and finance need to be understood through their internal relations to an intermediate moment, that of rent. Thus, we have advanced a conceptual framework that explores the value-rent-finance triad, permitting an exploration of the different ways in which rent enters into the circulation and accumulation of value in these financial times. In particular, we have focused on the monopoly rents made possible from the "uncooperative commodity" that is water and the absolute rents that emerge from the securitisation of future revenue streams, on the basis of which financial intermediaries generate fees and commissions charged to investors for accessing the liquid assets that infrastructural forms have become. Recalling the above injunction to think about rent beyond the land, it is the creation of financial absolute spaces of private property relations around infrastructural assets that are essential to the way in which rent is pursued by fictitious capital formation. While our focus has been water and, predominantly water infrastructure, we suggest that such a framework has a wider resonance in that it challenges the black-boxing of financialisation, thereby enabling a more analytically precise understanding of the relations currently reconfiguring our socio-ecological worlds.

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[i] Although, as we go on to note, subsequent to Christophers' intervention – and indeed prior to it – there have been efforts to construct such a dialogue.

[ii] Expanding on Bryan et al (2015), 'value-generative work', Christophers (2018: 336-38) argues, comes from two sources of under-remunerated labour: risk absorption and production by labour performed by in society at large, linked to finance through the consumption of products like insurance, as well as the payment of various household bills; and the technical work performed by workers in the financial sector who turn these payments into 'fungible risk assets.'

[iii] Yet, perhaps, Postone bends the stick of 'categorical critique' too far in his evisceration of value from the contradiction between capital and labour (see Starosta 2005).

[iv] More specifically, landlords can skim surplus profits from capital competing to invest on lands of unequal fertility/location (differential rent I) and from capital investing unequal quantities of capital upon lands of equal quality (differential rent II) thereby averaging out profit rates in the sector as a whole.

[v] This builds upon Kerr's (1996: 76) critique of Harvey, in which he argues that "searching for titles to future ground rents in no way affects possible rents but rather presupposes those rents", as a result, "it is not fictitious capital that creates rent, but the existence of rent that can become the object of fictitious capital."

[vi] Significantly, in reference to Latin America focused 'neo-extractivist' debates, the pioneers of the 'operations of capital' have also called for a closer engagement with rent (Mezzadra and Nielson 2017: 188).

[vii] Financialisation is generally assumed to have occurred within the water sector in England and Wales during the second decade after privatisation. Following full divestiture of the water sector in England and Wales in 1989 the UK government initially retained a golden share in each of the newly privatised companies, thereby preventing full control by a single monopoly. With the sale of this golden share in 1994, several utilities were quickly acquired by large multinationals. In the case of Thames Water, it was acquired by RWE and then, in 2006 by the Australian investment bank, the Macquarie Group. The latter's acquisition of the utility led to a transformation of the economic model: household revenue streams were securitised in 2007; and borrowing against these securitised revenue streams increased significantly, supporting high dividend payments that often outstripped corporate profits.

[viii] It is worth noting that the 'value model' approach has also been proposed by Christophers (2015) in an earlier paper.

[ix] However, contrary to the market equalising forces of neo-classical economics, even if successful, this would likely increase the availability of differential rent (II) for the most productive water companies. We sideline such considerations here as our focus is the political economy of MR/AR rather than the market/competitive formation of DR.

[x] And this analysis could also be taken forward in other historical geographies, even, in some instances where state-owned corporatized utilities are operating.

[xi] This 'value seeking' form of capital investment ('gearing') suggests an interrelation with Differential Rent II, even though it is captured as absolute rent. It could also be seen as a deepening of absolute rents through a politically granted monopoly.

[xii] Mazzucato's text draws on heterodox economic frameworks to open up an important dialogue around value and rentierism. While acknowledging Marx's contribution to these debates, Mazzucato's is not an explicitly Marxist position. Instead she has done much to weave a rich and catholic contribution to public debate on the importance of value. This contribution, also drawing on the important work of Bayliss (2017), would appear to confirm the theoretical case we advance in this paper.