



**Sustainability and the financialisation of commercial property: making prime and non-prime markets**

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## Sustainability and the financialisation of commercial property: making prime and non-prime markets

### Introduction:

This paper situates itself at the intersection of two important trends affecting the built environment: the sustainability agenda and the financialisation of the commercial property market. The commercial property sector is understood as comprising a range of non-domestic buildings and premises; retail, office and industrial (warehousing and factories) are the main uses, together with some smaller subsectors. The analysis questions the extent to which financialisation has penetrated the commercial property market, pointing to its concentration in the most valuable 'prime' sector, and suggests that equal attention should be paid to the more prevalent but less financially valuable non-prime sector. It argues that engagement with the sustainability agenda is quite different across the two sectors and using a new economic sociology framework relates this to the construction of the object of exchange in these sectors and the modalities of valuation that operate. This has implications for the uptake of the sustainability agenda across the built environment.

The argument unfolds from an account of the sustainability agenda as it relates to commercial property, identifying the very partial nature of current research on this. It then situates this within a discussion of financialisation and whether this applies across the commercial property market. This brings the terms 'prime' and 'non-prime' to the forefront of the analysis and sets up the key focus of the paper as the engagement of a partially-financialised commercial property market with sustainability concerns. The conceptual

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2  
3 framework that is used to progress the analysis is then introduced. Callon's economization  
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5 project is outlined and links made to contemporary valuation studies. Key concepts are  
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7 defined: the construction of the objects of exchange within markets; the modalities of  
8  
9 valuation and specific calculative tools; and the performativity of these processes. This leads  
10  
11 on to the analysis of prime and non-prime commercial property sectors, using these  
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13 concepts, to understand how sustainability may impact commercial property as a whole,  
14  
15 and hence commercial areas within the built environment.  
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### 21 **Commercial property and the sustainability agenda**

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23 It is almost three decades since the Brundtland report popularised the concept of  
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25 sustainability – with its holistic emphasis on environmental, social and economic  
26  
27 interconnections – and the term has penetrated many areas; the property sector is no  
28  
29 exception. Within the academic, policy and professional literature, there is now an  
30  
31 established body of texts considering the application of the sustainability agenda to the  
32  
33 property sector and, in particular, commercial property. While the professional and  
34  
35 academic literature makes reference to the holistic nature of the sustainability concept, it is  
36  
37 clear that the dominant construction of sustainable commercial property concentrates on  
38  
39 environmental issues and within that, carbon and energy (Sayce et al., 2010). A review of  
40  
41 websites on sustainability and commercial property (see below for the methodology) found  
42  
43 that 65% of sites saw sustainability in terms of energy and 60% in terms of carbon.  
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50 The policy frameworks for promoting the sustainability of commercial property have  
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52 similarly been heavily focussed on energy and carbon emissions. The most symbolic  
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54 measure is that confirmed by the Government's Carbon Plan (HMG, 2011) that all new non-  
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56 domestic property should be zero carbon by 2019. Collectively commercial property  
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3 (excluding factories and the production activities that occur within them) currently accounts  
4  
5 for about 8.25% of UK energy consumption; this translates into about 15% of CO2 emissions  
6  
7 (RICS, 2013). The split of these emissions between uses shows that industry is responsible  
8  
9 for about 24% of emissions, with retail premises at just over 21% and offices accounting for  
10  
11 8% (see Figure 1).  
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15 [Insert Figure 1 about here]  
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19 For existing commercial properties, the largest energy users in the commercial sector are  
20  
21 subject to the requirement to buy permits to cover their carbon emissions under the CRC  
22  
23 Energy Efficiency Scheme but the measure that has the broadest coverage in the  
24  
25 commercial property market arises from the energy certification of buildings. The 2002  
26  
27 European Directive on the Energy Performance of Buildings (2002/91/EC) required many  
28  
29 commercial buildings to be assessed for an Energy Performance Certificate (EPC). An EPC  
30  
31 rates the energy efficiency of a building and is valid for 10 years, with the highest rating  
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33 (most efficient) being 'A' and the least 'G'. An EPC is required for any premises being rented  
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35 out or sold or for a completed newly constructed building. Changes to a building altering the  
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37 number of parts for separate occupation may also require an EPC. Failure to make an EPC  
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39 available to a prospective tenant or purchaser can incur a fine based on the building's  
40  
41 rateable value. There are specific exemptions relating to: listed and protected buildings'  
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43 temporary structures; places of worship; production sites with low energy consumption;  
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45 small detached buildings; and buildings due to be demolished.  
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52 The Directive was revised in 2010 (2010/31/EU), with provisions for Minimum Energy  
53  
54 Efficiency Standards (MEES) implemented in England and Wales through S.49 of the 2011  
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56 Energy Act and put into force by 2015 regulations, with effect from 1<sup>st</sup> April 2018. Under  
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3 these all commercial property offered for rent will have to demonstrate at least an 'E' EPC  
4  
5 energy rating. This will apply to all new leases and lease renewals, where the term is greater  
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7 than 6 months and less than 99 years, and the fine for non-compliance are substantial at  
8  
9 £5,000-150,000. There are exemptions where: identified improvement measures can be  
10  
11 shown to be non-viable within a seven-year payback period; the necessary consents from  
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13 tenants, lenders and superior landlords cannot be obtained; or 'a relevant suitably qualified  
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15 expert' states in writing that the improvement measures will reduce the property's value by  
16  
17 5% or more. The property sector has variously assessed that between 13-20% of commercial  
18  
19 property has an EPC rating of 'F' or 'G' and that 2-5% of investment income comes from  
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21 properties with such ratings (Chadha, 2012, Zurich, 2013); furthermore, some 34% of  
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23 commercial properties do not currently have an EPC at all (Chadha, 2012).  
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30 This focus on operational energy consumption and associated carbon emissions is slowly  
31  
32 being matched by attention to the embodied carbon associated with the production and  
33  
34 transportation of construction materials. The CEN/TC 350 process is being conducted at EU  
35  
36 level to develop voluntary standards for the assessment of the sustainability of new and  
37  
38 existing construction works and for the environmental product declaration of construction  
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40 materials (Ascuí and Lovell, 2011). This is leading to some activity in assessing embodied  
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42 carbon for new developments and refurbishments.  
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47 There is also a range of classificatory frameworks seeking to assess new commercial  
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49 developments and refurbishments from a broader sustainability perspective (Joss et al.,  
50  
51 2015). These schemes are increasingly being incorporated into planning decision-making on  
52  
53 development proposals. At a building-scale the most commonly adopted scheme within the  
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55 UK is BREEAM; a neighbourhood scale version BREEAM Communities is now available for  
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3 the masterplanning of major urban redevelopment schemes. BREEAM parallels schemes  
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5 such as LEED, LEED-ND, GreenStar, CASBE, etc. that operate more commonly in other  
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7 countries. Such schemes work by identifying an extensive menu of features of a  
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9 development as 'sustainable' and rewarding them with 'credits'; some credits may be  
10  
11 mandatory. Usually credits are weighted and aggregated to provide an overall score and/or  
12  
13 classification. There are BREEAM classification schemes for different types of development,  
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15 including various commercial categories (Cole, 2006; Schweber, 2013).  
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20 There is, therefore, an established sustainability agenda in place relevant to the commercial  
21  
22 property market, albeit one very focussed on energy use and carbon emissions. The  
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24 academic literature in response has taken a very particular perspective. Some work, often  
25  
26 more technical in nature, has concentrated on identifying how buildings may be made more  
27  
28 sustainable through changing the building fabric, its facilities and associated operational  
29  
30 routines (e.g. Fieldson and Rai, 2009; Newell, 2009). The main emphasis, though, has been  
31  
32 on considering whether sustainability features add value within the property market. The  
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34 argument here is that if such features can be shown to add value, there will be an incentive  
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36 for market actors to promote sustainability. Work within this line includes: Lützkendorf and  
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38 Lorenz, 2005; Ellison and Sayce, 2006; Sayce et al., 2007; Levy and De Francesco, 2008;  
39  
40 Fuerst and McAllister, 2009; Dixon, 2009; Sayce et al., 2009; Sayce et al., 2010; Warren-  
41  
42 Myers, 2012; Fuerst et al., 2013. It parallels the professional interest in how to value  
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44 sustainability properties set out in the RICS Valuation Information Paper No. 13 (2009).  
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51 This literature is partial in a number of respects. First, it is normatively concerned to  
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53 consider sustainability in terms of its market value; the perspective adopted is of the  
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55 assumed market actor, the consumer and purchaser of commercial property. Second, the  
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3 conceptual framework is that provided by neo-classical economics, with its supply and  
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5 demand dynamics and benchmark of perfect competition. Third, this academic neo-classical  
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7 construction of a market is taken as an unquestioned reality, as already existing 'out there'  
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9 (Callon, 1998a; MacKenzie, Muniesa and Siu, 2007). A different approach is taken here,  
10  
11 looking at markets as socially constructed entities and raising the question of how this  
12  
13 enables one to consider the impact of the sustainability agenda on commercial property.  
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15 Before setting out this conceptual framework in more detail, an important trend affecting  
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17 the commercial property market – financialisation – is addressed.  
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#### 24 **Financialisation and the commercial property market**

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26 There is a growing body of literature that points to financialisation as a major contemporary  
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28 socio-economic trend (Christopherson et al., 2013; Layfield, 2013; Müller, 2014; Zhang and  
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30 Andrew, 2014; Forrest and Hirayama, 2015). Such financialisation can be seen as a particular  
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32 form of economicization, that is the process “through which activities and behaviours and  
33  
34 spheres or fields are established as being economic” (Caltskan and Callon, 2009: 370).  
35  
36 Chiapello (2015: 15) sees it as a transformation in the nature of capitalism, one that involves  
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38 “the capture of resources by finance in the broadest sense through expansion of the  
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40 financial markets, a rise in the number and variety of financial operators and finally the  
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42 development of a service industry associated with financial activities”.  
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48 She goes on to emphasise the importance of new modes of valuation within financialisation,  
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50 valuation involving “specific ‘financialised’ techniques and calculation methods” (ibid).  
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52 Financialised valuation is defined as: “valuation processes equipped by models, instruments,  
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54 and representations belonging to the explicit knowledge underpinning the approach and  
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56 practices of finance professionals” (op.cit.: 5). Three particular aspects are identified: the  
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3 reliance on market prices as indicator of worth; probability-based estimation of risk; and the  
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5 use of discounted cashflow (DCF) techniques to calculate Net Present Value (NPV). These  
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7 are seen as increasingly displacing valuations based on costs, non-probability-based  
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9 assessments of risk and non-investment interests.  
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13 As an important sector of the UK economy, commercial property might be expected to be  
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15 subject to these financialisation trends. In terms of its value, the commercial property sector  
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17 was estimated to be worth £569 bn in 2012, which is nearly as large as the country's stock  
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19 of plant, machinery and vehicles, a third the value of government bonds or about 30% that  
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21 of UK equities. Commercial property comprises largely retail, office and industrial uses (89%  
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23 of this total by value). Retail property is worth £207 bn followed by offices at £157 bn,  
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25 warehousing at £80 bn, factories at £60 bn and other commercial property at £65 bn. On  
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27 average over £50 m.sq.ft. is added to the UK commercial property sector each year with an  
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29 investment value of about 1% of GDP. (All data from RICS, 2013; see Figure 1.)  
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35 Such commercial property (alongside other property such as agricultural land and  
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37 residential estates) has long been held as an investment. The RICS estimate that about two-  
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39 thirds of commercial property is rented and thus owned by a landlord as an investment  
40  
41 asset, and that this figure has grown over the last decade (2013). This means that about 60%  
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43 of the UK's office and retail stock and 25% of the industrial stock is owned as an investment  
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45 (McNamara, 2015). By value, figures provided by Benford and Burrows (2013) suggest that  
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47 £464 bn of UK commercial property or over 80% is occupied by renters. This emphasis on  
48  
49 commercial property as an investment is reflected in the dominant form of valuation  
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51 method for such assets known, not surprisingly, as the investment method. This is based  
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53 upon the capitalising future rental income flows to a present value using an 'all risks yield'  
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3 (representing the opportunity cost of investment and the specific risks of the particular  
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5 property being valued) as the discount rate. Traditionally this was calculated using discount  
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7 factors found in valuation tables, published since the early 20th century.  
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11 Financialisation has penetrated the commercial property market but only in one sector, the  
12  
13 so-called 'prime' sector. 'Prime' is a term widely used within the property market to refer to  
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15 buildings and developments which are attractive to institutional investors such as pensions  
16  
17 funds, insurance companies and other major corporate property holders. Such properties  
18  
19 are built and fitted out to a high specification incorporating the 'latest and newest' features  
20  
21 and are typically described as 'Grade A' or of the highest 'quality'. They will be in locations  
22  
23 that can be termed 'head quarter locations'. If a new development, they will be pre-let and  
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25 tenants will be major companies who have a 'good covenant', which means that they are  
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27 unlikely to vacate the premises unexpectedly or otherwise fail to pay rent.  
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33 McNamara (2015) states that a third of the commercial property sector is owned directly by  
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35 UK insurance companies and pension funds (see also Hennebury and Robert, 2008), with  
36  
37 overseas investors, listed property companies and private property companies each owning  
38  
39 a further seventh; the remainder is owned by small businesses, charities and wealthy  
40  
41 individuals (Benford and Burrows, 2013). The financial institutions (the pension funds and  
42  
43 insurance companies) are major players. The value of their property investments is heavily  
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45 concentrated in high-value locations: 21% of all commercial investment by value comprises  
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47 Central London shops and offices; 17% is in purpose-built shopping centres. Shops and  
48  
49 offices outside of Central London and such shopping centres amount to only 18% of the  
50  
51 total investment value (data from IPD, which concentrates on financial institutions'  
52  
53 holdings; summarised in RICS, 2013). While the proportion of their total investment  
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3 portfolio directly held as property has fallen over the last two decades (McNamara, 2015),  
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5 financial institutions continue to see an advantage to holding commercial property because  
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7 of its perceived long-term security and the way that returns from property are counter-  
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9 cyclical to those from other assets, notably equities. However, the scale of their involvement  
10  
11 is now rivalled by overseas investors, particularly in locations such as the City of London.  
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14  
15 This institutionally-dominated prime sector is where financialisation is having an impact in  
16  
17 two inter-related ways. First, the method of valuation adopted is moving away from the  
18  
19 traditional investment method towards the more sophisticated use of DCF techniques as  
20  
21 valuation tables have been overtaken by software. This calculates property  
22  
23 values as NPVs and further allows for Internal Rates of Return (the discount rate at which  
24  
25 NPV equates to zero) to be calculated as an indicator of the rate of return on property  
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27 investment. This contrasts with the use of comparables data from existing property market  
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29 transactions on prices and rents to determine property investment yields (by dividing  
30  
31 freehold capital values by rental income) as in the past. These shifts now put property  
32  
33 investment on a par with other investment assets when calculating value and return.  
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40 Second, the identification of property investment with the ownership of a discrete physical  
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42 commercial unit – an office building, a shopping mall – is being broken by the development  
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44 of ‘paper’ assets based on commercial property ownership. Thus direct ownership of  
45  
46 individual properties by financial institutions is increasingly being replaced by investment in  
47  
48 collective vehicles that own a portfolio of properties or unitised individual properties. In  
49  
50 2012 collective investment schemes accounted for 34% of the ownership of investment  
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52 property (RICS, 2013).  
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3 This emphasis on how financialisation has affected the prime commercial property market,  
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5 important as it is, should not lead us to forget the rest of the market. Data on the value of  
6  
7 commercial property overemphasises the importance of high value locations and the more  
8  
9 expensive property held by institutional investors. There are numerous commercial  
10  
11 premises that contribute relatively little to the overall value of the investment market. It is  
12  
13 difficult to establish definitive data for the commercial property sector as a whole but the  
14  
15 Valuation Office Agency record that in 2004 there were 1.4 million non-domestic properties  
16  
17 in England and Wales (defined in terms of hereditaments, the business rate taxable unit). By  
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19 area (sq.m.) this was distributed as follows: 17% offices; 19% retail units; 25% warehousing;  
20  
21 and 38% factories (see Figure 1).  
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27 A ready indicator of the extent to which this comprises non-prime property is given by its  
28  
29 age (since prime property by definition is relatively modern). Half of all commercial  
30  
31 properties were built before 1940 and only 9% after 1990; by area just over a quarter of  
32  
33 commercial building space was built before 1940 and only 15% since 1990. 85% is therefore  
34  
35 almost 20 years old and, by definition, non-prime. Retail space is disproportionately older;  
36  
37 about 40% of this floorspace was built before 1940 compared to about 30% of office  
38  
39 floorspace and 25% of industrial floorspace (GOS, 2008: 59).  
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45 Non-prime property is not only older but is typically owned by wealthy individuals and small  
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47 local businesses, who “accounted for a significant amount of the investment in the small,  
48  
49 local units that constitute much of the stock of ‘secondary’ quality commercial property”  
50  
51 (Benford and Burrows, 2013: 53). It is also associated with substantial levels of bank lending.  
52  
53 Sources give quite different figures for such bank debt but the pattern is consistent. Thomas  
54  
55 (2011) states that, at minimum, £250 bn (75%) of real estate debt is secured against non-  
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3 prime property and more than £100 m of commercial mortgage debt is backed by lower  
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5 quality property; GVA (2011) claims that about 62% is secured against secondary property.  
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7 Benford and Burrows (2013) note that using property as collateral against debt is more  
8  
9 common among smaller companies, with 44% of SME bank loans by value secured on  
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11 property.  
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15 However, the term non-prime is not a clear-cut as prime. It is defined by the absence of  
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17 institutional investor interest and this can change over time. Prime institutional property  
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19 investments may (indeed will) become non-prime due to physical ageing, changed occupier  
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21 requirements and/or spatial shifts in property markets. The 'best' is a moving category and  
22  
23 can only describe a limited portion of the market. The remainder comprises a mass of  
24  
25 buildings and land which can be further sub-divided into secondary and tertiary, with  
26  
27 tertiary representing the unit furthest in physical and market characteristics from prime.  
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30  
31 So the commercial property market can be described as partially financialised, with  
32  
33 financialised modes of valuation and asset creation penetrating the prime sector. Outside of  
34  
35 this, the commercial property market comprises a wide range of buildings and premises that  
36  
37 can be characterised as secondary or tertiary. While there has been a tendency in much real  
38  
39 estate and planning literature to focus on prime property, it is important to consider the full  
40  
41 range of commercial property. Urban areas are made up of prime and non-prime; indeed  
42  
43 the physical majority of commercial property in our towns and cities will be non-prime.  
44  
45 Furthermore all elements of the commercial property market are important from the point  
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47 of view of the sustainability of the built environment. The key question that this paper  
48  
49 addresses is how the prime and non-prime distinction interacts with the agenda for  
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51 sustainability.  
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### Economizing through constructing, valuing, calculating and performing

The framework adopted for addressing this question draws on the new economic sociology (also termed cultural economy) that has been strongly influenced by socio-technical studies (STS; Amin and Thrift, 2004; du Gay and Pryke, 2002). It also meshes with the new valuation studies prompted by Stark's work (2009). This begins from the idea that greater attention needs to be paid to the construction of markets; markets are not natural phenomena but have to be actively created and maintained. New economic sociology, therefore, explicitly seeks to analyse the way that existing markets are constructed including the potential for other alternatives to emerge or exist (Law, 2002). From this perspective, markets can be seen as "complex entanglements or networks of humans, materials, institutions, politics and technologies" (Lovell and Smith, 2010: 458) which are rendered economic (Callon et al., 2007: 3). How "economic markets are separated out of the myriad connectivities in life and made into a recognisable working mechanism of exchange" is the focus of attention (Lovell and Smith, 2010: 459). As Hopwood states more simply: "a practical economy needs to be positively forged rather than merely revealed" (1992: 142).

Callon (2007) puts particular emphasis on the possibility of market transactions arising from the way that entities have been disentangled, decontextualised and alienated from specific relationships and given frames. A market object has to be created so it can be exchanged in market transactions as an abstract entity. The object to be traded needs to be reasonably stable and 'thing-like'; it cannot be too uncertain prior to the exchange or vary too much between individual exchanges. This also involves minimal agreement on the nature and limits of property rights and how they can change hands, and the existence of systems for surveillance and enforcement of exchanges.

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3 Considering the object of exchange in property markets, it is very tempting to see  
4  
5 commercial property markets as a means of exchanging buildings and floorspace, i.e. the  
6  
7 physical entity but what is actually exchanged is a property right, i.e. a set of rights and  
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9 duties associated with the physical building or floorspace that are socially recognised and  
10  
11 legally enforceable. From an STS perspective, the object of exchange is inherently socio-  
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13 material, comprising a nexus of the set of rights and duties *and* a material part of the built  
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15 environment, a physical building (or part of it) in a specific geographical location.  
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20 Furthermore, Callon emphasises that this process of object-construction is never complete  
21  
22 so there is never a distinct, discrete, non-socially constructed market transaction. Rather  
23  
24 there is continuous work involved in creating the possibility of the market exchange and  
25  
26 there is always scope for change and disruption: “the game is never over, for new framings  
27  
28 are always possible” (Callon, 2007: 321). This includes the possibility of sustainability  
29  
30 frames. If a sustainable property is to become the object of exchange within the commercial  
31  
32 property market, consideration needs to be given to how the object is constructed as  
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34 sustainable and how the nature of the property right interfaces with the sustainability  
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36 assessment of the materiality of the building.  
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42 A second feature that this approach draws attention to is the importance of modes of  
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44 calculation, providing means for actors to calculate the probable outcomes of their choices.  
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46 This includes, *inter alia*, the definition of standards and the existence of measuring systems.  
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48 These aspects of markets all have to be built into institutional arrangements, routines,  
49  
50 regulations and practices. Market devices are important means of achieving this; Callon,  
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52 Millo and Muniesa see market devices as “material and discursive assemblages that  
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54 intervene in the construction of markets” (2007: 2). Callon (1998a) argues for attention to  
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3 the nature of calculation in these markets as a complex, collective practice with specific  
4 material realities in the form of artefacts such as figures, written media and inscriptions.  
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8 A specific form of calculation that is significant within markets is valuation; this is  
9 particularly important within property markets where there is a distinct professional activity  
10 of valuation. Callon and Caliskan (2009, 2010) emphasise the important of modalities of  
11 valuation within markets, examining these in practice whereas traditional economics takes  
12 these as given. This meshes with valuation studies (Stark, 2009; Berthoin Antal et al., 2015),  
13 developing a sociological analysis of how value is constructed and, further, the identity of  
14 valuers generated.  
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25 This perspective can help us understand what is involved when markets come under  
26 pressure for change, for example from the sustainability agenda; sustainability concerns  
27 introduce a previously unknown element into market calculations and valuations. Callon  
28 sees the solution to such uncertainty in the emergence of new calculative agencies and new  
29 calculating tools; for, as Callon emphasises “calculativeness didn’t exist without calculating  
30 tools” (1998a: 23). From valuation studies, Hutter and Stark also emphasise that when  
31 something new emerges, someone has to determine its worth (2015: 1). Furthermore, to  
32 acquire value something has to be differentiated enough, recognisable enough and  
33 reproducible enough, but not too many elements should be involved in such differentiation.  
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46 Thus a sustainability commercial property needs to be differentiated from other property  
47 and recognised as distinctly sustainable but without reference to too many characteristics.  
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50 The incorporation of a value for a sustainable commercial property can be compared to the  
51 study of value-added accounting, which Mennicken and Power analyse as creating “a new  
52 kind of object in accounting terms and a mechanism for the production of an alternative  
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3 reality, albeit within the existing frame of standardized corporate financial reporting” (2015:  
4  
5 210). Callon describes going beyond the established framings offered by existing calculative  
6  
7 tools and practices as leading to ‘overflowings’ (1998b).  
8  
9

10  
11 The emergence of new calculative tools potentially has significant impacts and thus the use  
12  
13 of these tools may be considered performative, a concept that also much engaged Callon  
14  
15 (1998a, p. 46). MacKenzie argues that Callon’s version of performativity is very general,  
16  
17 seeing social life as the results of ‘endless performances’ (2004: 305). He, therefore, favours  
18  
19 a stronger version, which he terms Austinian, drawing on the idea of a performative  
20  
21 utterance, where the speaking makes itself true; thus the person authorized to perform the  
22  
23 marriage ceremony renders a couple married by declaring them so. There are a number of  
24  
25 relevant examples of such performative analysis. Valuation studies has shown how the  
26  
27 application of techniques of valuation can render preferences endogenous, as opposed to  
28  
29 the techniques revealing a-priori established preference sets (Berthoin Antal et al., 2015);  
30  
31 Hennebury and Roberts (2008) demonstrated how benchmarking for office property is a  
32  
33 self-referential practice that has had prevented geographical diversification of investment;  
34  
35 and Christophers (2014) has analysed how the role of the Three Dragons model for  
36  
37 determining affordable housing levels in developments has made and remade the urban  
38  
39 landscape.  
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47 If sustainability is to influence commercial property markets, this framework suggests that  
48  
49 there will need to be a differentiated object of exchange that is the focus of calculative  
50  
51 devices altering prevailing modalities of valuation and where tools play a performative role  
52  
53 in altering practices. But the discussion of the partial financialisation of the commercial  
54  
55 property market above suggests that such an analysis cannot be conducted for the market  
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3 as a whole. The analysis below, therefore, presents two narratives, one for prime and one  
4  
5 for non-prime property. In each case, the following are considered in relation to the  
6  
7 sustainability agenda: constructing the object of exchange in the commercial property  
8  
9 market; the modalities of valuation; and the role of a variety of calculative market devices,  
10  
11 including their performative role.  
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### 14 15 16 17 **A note on methods**

18  
19 The research for the paper employed a mix of methodological approaches. In addition to  
20  
21 the usual research literature review, a web search was undertaken over 22-23/11/2013 for  
22  
23 sites linked to the mix of terms “sustainable/sustainability”, “property” and  
24  
25 “commercial/offices/shops/retail”. This gave access to the online professional and  
26  
27 commercial literature. 29 sites were examined in depth and this was supplemented by a  
28  
29 review of material in the Royal Institution of Chartered Surveyors (RICS) journal *Modus* and  
30  
31 the BRE’s (Building Research Establishment) weekly online news service *Building4Change*  
32  
33 and a search for professionally and commercially-oriented books and reports in a copyright  
34  
35 library.  
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39  
40 A series of interviews with property market professionals were undertaken in 2014. Two  
41  
42 different sources were used for accessing potential interviewees. Using names revealed in  
43  
44 these web-pages and professional press articles, together with contact lists from a number  
45  
46 of relevant workshops during 2011-3, a database of commercial and professional actors was  
47  
48 built. From these, 26 property market professionals were identified and current contact  
49  
50 details were obtained for 15, resulting in 9 interviews. As these interviewees were  
51  
52 overwhelmingly professionals involved with prime commercial property and based in the  
53  
54 centre of London, contacts involved in a broader range of property market transactions  
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3 were sought. Estate agents identified in boards above empty or to let commercial properties  
4  
5 in an area of north London were contacted. Together with some snowballing, this resulted  
6  
7 in an additional 8 interviews. All interviewees were given a commitment of confidentiality to  
8  
9 encourage them to speak openly. Digitally recording was considered inappropriate as it  
10  
11 might deter the interviewee. It was therefore decided to record all the interviews manually,  
12  
13 typing up detailed notes immediately after. Since these were not transcripts, analysis  
14  
15 proceeded by reading and rereading rather than using a formal coding process. A summary  
16  
17 note was prepared and circulated to all interviewees, inviting corrections and comments  
18  
19 which were used to finalise the analysis. It should be noted that results were highly  
20  
21 consistent within the prime and non-prime sectors.  
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27 Finally, research was undertaken through online material into the various calculative tools  
28  
29 identified through literature searches and interviews. Interviewees were also specifically  
30  
31 questioned about the significance of these tools. These insights were complemented by the  
32  
33 author's previous knowledge of the emergence and operation of several of these tools  
34  
35 through contacts with the organisations responsible for the tools.  
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#### 41 **Sustainability and prime commercial property**

42  
43 The analysis begins by considering how the object of exchange in the prime commercial  
44  
45 property sector is constructed. A first important feature is how time is embedded in the  
46  
47 object. Prime commercial property owners are assessing their assets on the basis that they  
48  
49 will be holding properties for at least 10 years and potentially up to 25 years, letting them  
50  
51 out on leases, which are currently averaging 10 years on a new lease with regular rent  
52  
53 reviews (McNamara, 2015). This timescale puts a premium on ensuring the attractiveness of  
54  
55 the property to tenants and its compliance with regulatory requirements over the medium  
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3 term. Owners need to ensure that the property counts as 'prime' not just now, but for at  
4  
5 least a decade ahead.  
6  
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8  
9 The interviews made it clear that this is resulting in actors in the market-place increasingly  
10  
11 expecting green features in prime property and 'high' specifications meaning 'green'  
12  
13 specifications. This is not a stable situation. With competition between buildings to be  
14  
15 considered amongst the best, there is continuing pressure for improved specifications. The  
16  
17 incorporation of more and more sustainability features is being expected at the 'top end' of  
18  
19 the market and perceptions of quality are being amended accordingly. The interviews  
20  
21 further revealed that, currently, the way the terms 'prime' and 'sustainable' are being used  
22  
23 as markers of the highest quality in the property market is largely about energy, with double  
24  
25 the mentions compared to accessibility and transportation, the next most common focus;  
26  
27 this may relate to the greater energy intensity of prime property (Ellison & Sayce, 2006,  
28  
29 p.15).  
30  
31  
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34  
35 Remembering that the object being exchanged is a legal right over a physical building, it is  
36  
37 interesting to note that a new form of legal right, the green lease is featuring (Hinnels et al.,  
38  
39 2008; Sayce et al., 2008). The distinctive characteristic of a green lease is that it requires the  
40  
41 landlord and tenant to work together in the context of the physical features of the building  
42  
43 to reduce energy consumption. This is intended to facilitate investments in energy efficiency  
44  
45 measures as well as encouraging behavioural change by the tenants. Such green leases were  
46  
47 introduced to overcome the split incentive problem that still pervades much of the UK  
48  
49 property market, whereby the landlord incurs the costs of energy-related efficiency  
50  
51 measures but the tenant reaps the reward in terms of lower utility bills; elsewhere in  
52  
53 Europe landlords often pay energy bills. Even if a full green lease is not adopted, larger  
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3 landlords are beginning to consider including lease terms to prevent tenants doing works  
4  
5 that might be detrimental to the EPC rating; and some tenants are asking to be indemnified  
6  
7 against liability for a non-compliant EPC rating post-2018.  
8  
9

10  
11 Turning to the way in which prime and sustainable prime property is valued, the investment  
12  
13 rationale of the major institutional investors means that the assumed risk and choice of  
14  
15 discount rate are the key factors. The definition of 'prime' implies a low risk property  
16  
17 investment, represented in the adoption of a low yield within the DCF. The low return from  
18  
19 rental income as a percentage of capital value is accepted due to the expectation of lower  
20  
21 variability in rental income and of rental and capital value growth. The fact that actual  
22  
23 historic returns do not always reflect these assumptions (GVA, 2011) is not relevant; the  
24  
25 calculative practices for valuation within the prime property sector still follow these  
26  
27 conventions (Habib, 2013) and this means that the way risk is perceived and the  
28  
29 capitalisation yield chosen is important.  
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34  
35 Calculations in the prime property market are all about reducing risk, particularly risk of  
36  
37 voids in the occupancy of a building which undermine the security of the income stream.  
38  
39 Such voids may arise from the difficulty of getting a tenant or because there is a need to  
40  
41 undertake refurbishments (say as a result of MEPS). Incorporating sustainability features has  
42  
43 become a way of reducing risk and justifying a low yield in prime property valuations. The  
44  
45 interviews suggested that the yields used to capitalise rental income are not being further  
46  
47 adjusted for sustainability features. While a more sustainable building is considered less  
48  
49 risky than a less sustainable building, the 'all risks' yield is assumed to have already factored  
50  
51 in the risks associated with a best (and hence most sustainable) property.  
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3 Risk is not just about attracting the best (most secure) tenants initially but about future-  
4  
5 proofing with regard to regulatory requirements so as to avoid un-scheduled disruptions to  
6  
7 occupancy. Prime property owners will look ahead and incorporate measures now to reduce  
8  
9 the risks of any future loss of rental income and also consider them at planned major  
10  
11 refurbishment points. In this way, prime buildings seek to be 'green' at inception and  
12  
13 ordinary asset management maintains the sustainability of premises on an ongoing basis.  
14  
15 For portfolios of prime properties, it was reported that the major institutional owners are  
16  
17 reviewing their assets and calculating the works that would need to be undertaken to meet  
18  
19 the requirements of MEPS. Using a DCF calculation, they are factoring in the necessary  
20  
21 works over time and calculating the impact on the NPV of the asset. This is underpinning  
22  
23 decisions about whether to keep, refurbish or sell the asset. Where they are deciding not to  
24  
25 keep the building, it is redefined as non-prime due to obsolescence, valued with a higher  
26  
27 discount rate (reducing its capital value) and released onto the secondary market.  
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33  
34 Key classificatory tools play a role in such calculations. In the prime sector, EPCs and the  
35  
36 implications of MEPS are incorporated into marketing, valuation and assessment of  
37  
38 commercial property. There are some interesting cognitive disjunctures operating. While  
39  
40 some interviewees questioned the robustness of the EPC methodology in relation to actual  
41  
42 energy consumption, this does not affect the expectation of an A-grade. And while there is  
43  
44 some scepticism about the likelihood of strict MEPS measures actually coming into force,  
45  
46 expenditure in anticipation of MEPS is already being planned and institutions are also  
47  
48 considering the simpler option of recalculating the EPC with better data as it is estimated  
49  
50 that many older EPCs are likely to be 'inaccurate'. Outside of these major investors, there  
51  
52 remains considerable inaction and a 'wait-and-see' attitude was widely reported.  
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3 There are other ways in which this single classificatory framework of the EPC, backed by  
4  
5 MEPS regulation, is likely to impact practices within the prime commercial property sector.  
6  
7 These include: new modes of negotiation on rent reviews focussed around discounts for  
8  
9 investments in energy efficiency by tenants; tenants countering dilapidations claims by  
10  
11 landlords on the basis that necessary works for MEPS would replace the affected fixtures  
12  
13 and fittings; generalised dispute over the locus of responsibility for energy improvements to  
14  
15 make a building MEPS-compliant; and impacts on security of tenure if landlords need access  
16  
17 to undertake improvement measures.  
18  
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20

21  
22 On new developments, the key classification schemes being incorporated into calculative  
23  
24 practices are BREEAM and, to a less extent, SKA. An Excellent or Outstanding rating under  
25  
26 BREEAM is looked for and expected on all new development in the prime sector. One  
27  
28 interview referred to the BREEAM system as “great” – again regardless of how well it  
29  
30 actually reflects sustainability – “because it is a badge”. BREEAM is now incorporated into  
31  
32 in-house systems for assessing properties and corporate reporting. The RICS-promoted SKA  
33  
34 scheme plays a similar role with regard to fit-outs and refurbishments of existing  
35  
36 commercial property.  
37  
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41  
42 Finally, there are now a number of classificatory schemes linking investment performance  
43  
44 with sustainability assessment. Here the performance of individual or a groups of buildings  
45  
46 is typically benchmarked against an investor’s overall portfolio of buildings and a database  
47  
48 for their peer comparators in the market. For example, GRE offer the GRE Sustainability  
49  
50 Benchmark (GRESB) Report which includes a free scorecard and also a more detailed  
51  
52 benchmark report available only to paid members. In marketing the tool, the benefits for  
53  
54 ensuring due diligence are emphasised but also the potential for comparison against peer  
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3 investors. This benchmark seems to be of growing importance in the investment market, as  
4  
5 compared to its competitors EcoPAS (developed by IPD) or IPSI (from the Investment  
6  
7 Property Forum with IPD involvement). It is regarded as research-based with a global reach,  
8  
9 trading on the academic reputation of one of its founders, Nils Kok; it appears to be  
10  
11 achieving the status that the IPD scheme and index have already found in the more general  
12  
13 investment market (Hennebury and Robert, 2008). Investors are asking for a GRESB rating  
14  
15 and even demanding performance in the top quartile of the GRESB global database. Funds  
16  
17 which already contribute to GRESB require a rating for new acquisitions.  
18  
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21  
22 The classificatory tools of EPCs, BREEAM and GRESB provide is a *de facto* definition of  
23  
24 sustainability in relation to individual buildings and whole portfolios, but they are also  
25  
26 shaping investment decisions, on purchase and sale and on asset maintenance.  
27  
28

29  
30 Performance is expected at certain levels and this will influence which buildings are bought  
31  
32 and sold and whether they are retained in a portfolio. Sustainability – as represented by  
33  
34 these specific classifications – is incorporated into the calculative practices of the prime  
35  
36 commercial property market.  
37  
38

### 39 40 41 **Sustainability and non-prime commercial property**

42  
43 The dynamics are different in the non-prime sector. To begin with, the object of exchange  
44  
45 has a different timescale embedded in it. The key tenants are smaller firms and start-ups,  
46  
47 which are generally operating on a 12 month horizon. This clearly affects the way that  
48  
49 expenditure on sustainability features is viewed (Dixon, 2009). Thus, when asked to define  
50  
51 sustainable commercial property in terms of three specific features, for two of the non-  
52  
53 prime agents the term 'sustainability' had no meaning at all and all the rest focussed on the  
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3 longevity of the business and the occupation of the premises rather than any 'green'  
4  
5 building features.  
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8  
9 This shorter time horizon is reflected in the object of exchange. Interviews suggested that  
10  
11 standard new leases for small shops are 10 years with a 5 year rent review and tenants with  
12  
13 a stronger covenant may be able to ask for a break clause at 5 years; Grade C offices are  
14  
15 usually let on 6 years with 3 year rent reviews and start-ups will want even shorter leases at  
16  
17 around 3 years. RICS data (2013) shows that the average length of new leases (which will be  
18  
19 dominated by non-prime property) was less than 5 years in 2011 and that 76% of new leases  
20  
21 are 1-5 years long. Average lease length in retail was 5.5 years, in offices 4.5 years and in  
22  
23 industrials only 3.5 years. Most negotiations between tenants and landlords are not over  
24  
25 the physical features of the building but on the possibility of a rent-free period, break  
26  
27 clauses or a service charge cap. 33% of new leases have break clauses and the average rent-  
28  
29 free period is 8.8 months (RICS, 2013). In more buoyant market conditions, tenants may  
30  
31 have to pay a premium to get a tenancy. In the non-prime sector there is also a market in  
32  
33 lease assignments, whereby the unexpired part of the lease is sold, often with the existing  
34  
35 business. The 'goodwill' of the established business will form a part of the price of the  
36  
37 remaining lease term alongside the capitalised value of any difference between the  
38  
39 negotiated rent in the lease and the prevailing rental values (called the 'profit rent').  
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46  
47 Thus the non-prime sector is characterised by a short timescale and a concern with  
48  
49 occupancy by a rent-paying tenant in circumstances where business solvency cannot be  
50  
51 taken for granted. At the 'bottom end' of the market are, as one agent put it, businesses  
52  
53 that are concerned with whether they will be in business next week. Tenants are attracted  
54  
55 by financial breaks not sustainability features. Where leases are sold, the object is  
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3 constructed not just from the physical premises and the legal right but also the nature of  
4  
5 business activity. This premises-business entanglement is also seen in the way that the non-  
6  
7 prime commercial property sector is strongly impacted by policy measures affecting  
8  
9 business viability, such as rates relief or incentives for SME start-ups.  
10

11  
12  
13 The dynamics of calculation and valuation in the non-prime sector are also different. While  
14  
15 the investment method continues to be used to calculate capital values, outside of the  
16  
17 prime sector there is much greater use of comparables for capital values as well as rental  
18  
19 levels and lease assignment values. For example, for small shop units, a standard rental level  
20  
21 will be expected and sought by landlords which will then be adjusted for location and  
22  
23 nearby competition for the specific business involved. Lease assignments have a similar  
24  
25 benchmark price. The complexity of calculations is lower and DCF calculations are not  
26  
27 typically undertaken.  
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32  
33 This does not mean that risk does not feature in market calculations. Indeed the non-prime  
34  
35 property owners is investing in this sector of the commercial property market because they  
36  
37 want to get a higher return and are willing to accept a higher risk to get this. Non-prime  
38  
39 property is inherently more risky for a range of reasons (GVA, 2011). It is often management  
40  
41 intensive, capital intensive, potentially obsolete and more prone to voids and loss of  
42  
43 income. The covenant strength of the tenants is weaker and when the market falls,  
44  
45 properties are often over-rented and even short leases can make it a challenge to re-let  
46  
47 buildings (GVA, 2011). The return is, therefore, higher than with prime property.  
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51  
52 Interviewees in North London reported that secondary property let on long leases to good  
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54 covenants and subject to low rents per sq.ft. could be bought at yields of 6.5-7% which is  
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3 nearly twice the yield on prime London property. Where the risk is considered higher, yields  
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5 will reflect this, rising to 10% and even beyond.  
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7

8 So investing in sustainability features as a way of reducing risk has no attraction.  
9

10 Furthermore, non-prime investors typically hold a portfolio of many smaller properties and  
11  
12 do not wish to engage in complicated programmes of works across the portfolio, particularly  
13  
14 where there is unlikely be a value case for sustainability investments in terms of affecting  
15  
16 rental or capital values. Tenants are often financially insecure and budget constrained and  
17  
18 have little interest in sustainability (even energy bills) because they are more worried about  
19  
20 paying rent, rates (the business property tax) and insurance costs; this is particularly the  
21  
22 case for smaller shops. Furthermore, owners of non-prime property are concerned to  
23  
24 ensure its liquidity and ease of sale or re-letting. This means offering a basic, substitutable  
25  
26 product, usually an empty shell with minimal features that the tenant can fit out to their  
27  
28 own needs.  
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35 Given this lack of incorporation of sustainability into the object of exchange in the non-  
36  
37 prime sector, it is perhaps not surprising that classificatory forms of calculative tools attract  
38  
39 much less interest. Interviews suggested that EPCs were considered a regulatory  
40  
41 requirement in terms of box-ticking but it was universally claimed that occupiers, landlords  
42  
43 and agents never looked at them or considered the recommendations for energy efficiency  
44  
45 improvements that they contained. The existence of an EPC was sufficient for due diligence.  
46  
47 In addition, non-prime property agents do not regard many of the properties that they deal  
48  
49 with as likely to be affected by MEPS as they are already compliant or could readily be  
50  
51 brought into compliance by new windows or frontages that a new tenant would probably  
52  
53 require in any case. There is also considerable scepticism that MEPS will be fully enforced.  
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3 The Trading Standards Office and local authority trading standards officers will be  
4  
5 responsible but may well be insufficiently resourced to tackle this new task. Already many  
6  
7 non-prime properties are advertised without mention of the EPC rating despite this being in  
8  
9 contravention of regulations. The level of any penalties imposed will also be important and  
10  
11 may be weighed up against the costs of required energy efficiency improvements.  
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14  
15 For all these reasons, the percentage of the overall commercial stock that may be affected  
16  
17 by MEPS is probably well below the 20% anticipated and disproportionately concentrated in  
18  
19 larger secondary commercial premises that predate the improvements in the Building  
20  
21 Regulations over the last decade or so. The Energy Act 2011 may have much less impact  
22  
23 than hoped (by government) or feared (by the property sector). Given the nature of the  
24  
25 calculative practices within the prime and non-prime property sectors, it cannot be assumed  
26  
27 to deliver significant improvements in the energy efficiency of commercial buildings.  
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30  
31 Beyond EPCs there was little cognisance of sustainability classificatory schemes. The one  
32  
33 exception appears to be the RICS-backed SKA scheme for fit-outs, which is considered to  
34  
35 have some potential in the secondary office market, where it could provide a low cost  
36  
37 assessment of the quality of refurbishments and refits. But in general, the non-prime market  
38  
39 is one in which sustainability is not integrated into valuation and calculative practices and  
40  
41 there is, therefore, little perceived need for the tools offered by such classificatory schemes.  
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## 48 49 **Conclusions**

50  
51 The analysis here proposes that the commercial property market can be viewed as partially  
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53 financialised, with the prime sector adopting advanced finance techniques of valuation and  
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55 creating new collective means of investment. This impacts on the engagement with the  
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3 sustainability agenda for the commercial property sector. The longer time periods for  
4  
5 investment characterising this sector means that sustainability, i.e. environmental  
6  
7 sustainability has become a key marker of 'prime' in the construction of the object of  
8  
9 exchange with sustainability classificatory tools playing important roles. Green  
10  
11 specifications, A-Grade EPCs, Excellent or Outstanding BREEAM assessments and green  
12  
13 leases (or the equivalent) all constitute the current meaning of sustainable/prime  
14  
15 commercial property. Thus the object of exchange comprises a building with green  
16  
17 specification, with landlord-tenant relations defined by commitments to energy reduction  
18  
19 and subject to medium term asset management to maintain environmental sustainability  
20  
21 performance. Yields are not being adjusted further for the low risk that such a property is  
22  
23 seen to represent since they already represent the best investment that the prime sector  
24  
25 can offer. The increasing traction of sustainability investment benchmarks also means that  
26  
27 investors are looking for high sustainability performance *in these terms* and managing their  
28  
29 portfolios accordingly.

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36  
37 In the non-prime sector, the object of exchange comprises a nexus of current and potential  
38  
39 business activity and a standardised building unit with a low level of specification that allows  
40  
41 for flexibility of use and greater market liquidity. This object is valued through comparables  
42  
43 evidence with little recourse to calculative tools for measuring energy or sustainability  
44  
45 performance; indeed the lack of attention to EPCs can border on non-compliance. Neither  
46  
47 tenants nor owners see any financial advantage in sustainability investments and investors  
48  
49 operating in this less-secure economic context actively seek a level of risk to enhance their  
50  
51 financial returns.  
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3 This has implications for the sustainability agenda for the built environment. Outside of the  
4  
5 prime commercial property sector, there is little interest in or attention to future proofing  
6  
7 commercial properties and this suggests that ensuring the sustainability agenda has  
8  
9 purchase across the entire commercial property market may prove highly problematic; it is  
10  
11 the financialised prime sector where sustainability is more likely to be achieved, at least in  
12  
13 terms of environmental performance and reduced energy consumption. And yet the  
14  
15 majority of commercial property are to be found in the non-prime sector suggesting the  
16  
17 need for a new policy perspective.  
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22  
23 The analysis has also demonstrated the value of the new economic sociology perspective,  
24  
25 drawing attention to how the object of market exchanges is constructed and how modalities  
26  
27 of valuation operate, including the use of specific calculative tools to assess aspects of  
28  
29 environmental sustainability. Stark's point about the need to have calculative tools that  
30  
31 provide a limited form of differentiation when markets change is also borne out. The object  
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33 of sustainable property, at least within the prime sector, is differentiated by the use of a set  
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35 of calculative tools which provide a relatively simplified form of assessment. Even if the  
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37 calculation itself is relatively complex (as with the way that EPC grades and BREEAM scores  
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39 are calculated and property investment benchmarking occurs) the market simplifies these  
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41 by reference to the outcome – the EPC grade, the BREEAM outcome, the GRESBE  
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43 assessment – and turns them into an abstraction. And these outcomes continue to have  
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45 impact within the market, shaping investment, sale and upgrading decisions, even where  
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47 the market actors do not consider them to be accurate in assessing sustainability  
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49 performance.  
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3 But the analysis also suggests that, in the commercial property sector at least, the object of  
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5 exchange is not as disentangled and abstract as suggested at times by Callon (see also  
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7 Slater, 2002). Commercial property market exchanges always involve a nexus of elements.  
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9 In the prime sector, this nexus comprises the physical buildings, including its quality/green  
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11 specifications, and the contractual relationship represented by the lease, which may be a  
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13 green lease. In the non-prime sector, the nexus is better characterised in terms of a much  
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15 simpler physical unit, the business activity carried out and the short-term, flexible contract  
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17 of the landlord-tenant relationship. Here there is considerable negotiation over the terms of  
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19 the lease, rent-free periods, etc. in order to obtain tenancies in less-stable economic  
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21 circumstances. In the prime sector, the tenant is assumed to represent a good covenant, i.e.  
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23 not be within an unstable economic sector; negotiations can then be over detailed  
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25 specifications of the property. These difference, above all, represent a different approach to  
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27 risk, with low risk being the rationale of the prime sector and the non-prime sectors  
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29 accepting risk for higher returns.  
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36 Thus while the new economic sociology can provide a nuanced understanding of market  
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38 interaction with the sustainability agenda, attention needs to be paid to the detailed  
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40 constitution of the nexus involved in commercial property market exchanges and the  
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42 associated scope for negotiation between market actors. The market object is not  
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44 completely abstracted from the social relations of the market but rather constituted  
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46 through such negotiative practices.  
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## References

Amin A and Thrift N Eds, 2004 *The Blackwell Cultural Economy Reader* (Blackwell, Oxford)

Asci F and Lovell H, 2011, "As frames collide: making sense of carbon accounting"

*Accounting, Auditing and Accountability* **24** 978-999

Benford J and Burrows O, 2013, "Commercial property and financial stability" *Bank of*

*England Quarterly Bulletin* Q1 48-58

Berthoin Antal A, Hutter M and Stark D, 2015, *Moments of Valuation: exploring sites of dissonance* (OUP, Oxford)

Calışkan K and Callon M, 2009, "Economization, Part 1: shifting attention from the economy towards processes of economization" *Economy and Society* **38** 369-398

Calışkan K and Callon M, 2010, "Economization, Part 2: a research programme for the study of markets" *Economy and Society* **39** 1-21

Callon M, 1998a, "Introduction" in *The Laws of the Market* Ed. M.Callon (Blackwell, Oxford) pp 1-57

Callon M, 1998b, "An essay on framing and overflowing: economic externalities revisited by sociology" in *The Laws of the Market* Ed. M Callon (Blackwell, Oxford) pp 244-269

1  
2  
3 Callon M, 2007, "What does it mean to say that economics is performative?" in *Do*  
4  
5 *Economists Make Markets?* Eds D MacKenzie, F Muniesa, and L Siu (Princeton UP, Princeton,  
6  
7 NY) pp 311-357  
8  
9

10  
11 Callon M, Millo Y and Muniesa F, 2007, "Introduction" in *Market Devices* Eds M Callon, Y  
12  
13 Millo and F Muniesa (Blackwell, Oxford) p. 1-12  
14  
15

16  
17 Chadha S, 2012, "Sustainability can help 'future-proof' commercial property market"  
18  
19 *Architects Journal* 12 June  
20

21  
22 Chiapello E, 2015, "Financialisation of valuation" *Human Studies* **38** 13-35  
23  
24

25  
26 Christophers B, 2014, "Wild dragons in the city: urban political economy, affordable housing  
27  
28 development and the performative world-making of economic models" *International*  
29  
30 *Journal of Urban and Regional Research* **38** 79-97  
31  
32

33  
34 Christopherson S, Martin R and Pollard J, 2013, "Financialisation: roots and repercussions"  
35  
36 *Cambridge Journal of Regions, Economy and Society* **6** 351-357  
37  
38

39  
40 Cole R, 2006, "Shared markets: coexisting building environmental assessment methods"  
41  
42 *Building Research and Information* **34** 357-371  
43  
44

45  
46 Dixon T, 2009, "Barriers to Sustainable Commercial Property? What is holding back the  
47  
48 growth of sustainable commercial buildings?"

49  
50 [https://www.2degreesnetwork.com/groups/built-environment/resources/barriers-](https://www.2degreesnetwork.com/groups/built-environment/resources/barriers-sustainable-commercial-property/)  
51  
52 [sustainable-commercial-property/](https://www.2degreesnetwork.com/groups/built-environment/resources/barriers-sustainable-commercial-property/)  
53

54  
55 du Gay P and Pryke M Eds, 2002, *Cultural Economy: cultural analysis and commercial life*  
56  
57 (Sage, London)  
58  
59  
60

1  
2  
3 Ellison L and Sayce S, 2006, *The Sustainability Property Appraisal Project* Kingston University,  
4  
5 London)

6  
7  
8 Fieldson R and Rai D, 2009, "An assessment of carbon emissions from retail fit-out in the  
9  
10 United Kingdom" *Journal of Retail and Leisure Property* **8** 243-258

11  
12  
13  
14 Forreset R and Hirayama Y, 2015, "The financialisation of the social project: embedded  
15  
16 liberalism, neoliberalism and home ownership" *Urban Studies* **52** 233-244

17  
18  
19 Fuerst F and McAllister P, 2009, "An investigation of the effect of eco-labelling on office  
20  
21 occupancy rates" *JORSE* **1** 49-64

22  
23  
24 Fuerst F, van de Wetering J and Wyatt P, 2013, "Is intrinsic energy efficiency reflected in the  
25  
26 pricing of office leases?" *Building Research and Information* **41** 373-383

27  
28  
29 Government Office for Sciences, 2008, *Powering Our Lives* (BIS, London)

30  
31  
32  
33 GVA, 2011, *Putting Secondary Property First: exploring the challenges and opportunities of*  
34  
35 *non-prime assets* (GVA, London)

36  
37  
38 Habib B, 2013, "An unbalanced property market; a 'bubble' in London?" available at:

39  
40  
41 [https://www.ipd.com/research-updates/an-unbalanced-property-market-a-bubble-in-](https://www.ipd.com/research-updates/an-unbalanced-property-market-a-bubble-in-london.html)  
42  
43 [london.html](https://www.ipd.com/research-updates/an-unbalanced-property-market-a-bubble-in-london.html)

44  
45  
46  
47 Hennebury J and Roberts C, 2008, "Calculated inequality: portfolio benchmarking and  
48  
49 regional office property investment in the UK" *Urban Studies* **45** 1217-1245

50  
51  
52  
53 Hinnells M, Bright S, Langley A, Woodford L, Shiellerup P and Bosteels T, 2008, "The  
54  
55 greening of commercial leases" *Journal of Property Investment and Finance* **26** 541-551

1  
2  
3 HMG (2011) *Carbon Plan*, available at:

4  
5 [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/47621/13](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/47621/13)  
6  
7  
8 [58-the-carbon-plan.pdf](#)  
9

10 Hopwood AG, 1992 "Accounting calculation and the shifting sphere of the economic"  
11  
12  
13 *European Accounting Review* **1** 125-143  
14

15  
16 Hutter M and Stark D, 2015, "Pragmatist perspectives on valuation: an introduction" in  
17  
18 *Moments of Valuation* Eds A Berthoin Antal, M Hutter and D Stark (OUP, Oxford) pp 1-12  
19

20  
21  
22 Joss S, Cowley R, de Jong M, Müller B, Park BS, Rees W, Roseland M and Xxxx Y, 2015,  
23  
24 *Tomorrow's City Today: prospects for standardising sustainable urban development*  
25  
26 (University of Westminster, London)  
27

28  
29  
30 Latour B, 2005, *Reassembling the Social: An Introduction to Actor-Network-Theory* (OUP,  
31  
32 Oxford)  
33

34  
35 Law., J, 2002, "Economics as interference" in *Cultural Economy: cultural analysis and*  
36  
37 *commercial life* Eds P du Gay and M Pryke (Sage, London) pp 21-38  
38

39  
40 Layfield D, 2013, "Turning carbon into gold: the financialisation of international climate  
41  
42 policy" *Environmental Politics* **22** 901-917  
43  
44

45  
46 Levy D and De Francesco A, 2008, *The Impact of Sustainability on the Investment*  
47  
48 *Environment: a case study of Australia* (RICS Research Report, London)  
49

50  
51  
52 Lovell H and Smith S, 2010, "Agencement in housing markets: the case of the UK  
53  
54 construction industry" *Geoforum* **41** 457-468  
55  
56  
57  
58  
59  
60

1  
2  
3 Lützkendorf T and Lorenz D, 2005, "Sustainable property investment: valuing sustainable  
4 buildings through property performance assessment" *Building Research and Information* **33**  
5  
6 212-234  
7  
8

9  
10  
11 MacKenzie D, 2004, "The big, bad wolf and the rational market: portfolio insurance, the  
12 1987 crash and the performativity of economics" *Economy and Society* **33** 303-334  
13  
14

15  
16 MacKenzie D, Muniesa F and Siu L, 2007, "Introduction" in *Do Economists Make Markets?*  
17  
18 Eds D MacKenzie, F Muniesa and L Siu (Princeton UP, Princeton, NY) pp 1-19  
19  
20

21  
22 Macnamara P (2015) "The changing nature of property investment: implications for urban  
23 planning" in *Connections: Exploring Contemporary Planning Theory and Practice with Patsy*  
24  
25 *Healey* Eds J Hillier and J Metzger (Ashgate, London)  
26  
27

28  
29  
30 Meehan E, 1984, "Ratings and the institutional approach: a third answer to the commodity  
31 question" *Critical Studies in Mass Communication* **1** 216-225  
32  
33

34  
35 Mennicken A and Power M, 2015, "Accounting and the plasticity of valuation" in *Moments*  
36  
37 *of Valuation* Eds A Berthoin Antal, M Hutter and D Stark (OUP, Oxford) pp 208-228  
38  
39

40  
41 Müller J, 2014, "An accounting revolution? The financialisation of standard setting" *Critical*  
42  
43 *Perspectives on Accounting* **25** 539-557  
44  
45

46  
47 Newell G, 2009, "The significance of sustainability best practice in retail property" *Journal of*  
48  
49 *Retail and Leisure Property* **8** 259-271  
50

51  
52 RICS, 2009, *Valuation Information Paper No. 13: Sustainability and commercial property*  
53  
54 (RICS, London)  
55

56  
57 RICS, 2013, *Property Data Report 2013* (RICS, London)  
58  
59  
60

1  
2  
3 Sayce S, Ellison L and Parnell P, 2007, "Understanding investment drivers for UK sustainable  
4 property" *Building Research and Information* **35** 629-643  
5  
6

7  
8 Sayce S, Sundberg A, Parnell P and Cowling E, 2009, *Journal of Retail and Leisure Property* **8**  
9 273-284  
10

11  
12 Sayce S, Sundberg A and Clements B, 2010, "Is sustainability reflected in commercial  
13 property prices: an analysis of the evidence base" RICS Research Report (RICS, London)  
14  
15

16  
17 Schweber L, 2013, "The effect of BREEAM on clients and construction professionals"  
18  
19 *Building Research and Information* **41** 129-145  
20  
21

22  
23 Slater D, 2002, "From calculation to alienation: disentangling economic abstractions"  
24  
25 *Economy and Society* **31** 234-249  
26  
27

28  
29 Stark D (with Beuna D, Grand M and Lukács J), 2009, *The Sense of Dissonance: accounts of*  
30  
31 *worth in economic life* (Princeton University Press, Princeton NJ)  
32  
33

34  
35 Thomas D, 2011, "Banks hold £250bn in non-prime debt" *Financial Times* June 8, available  
36  
37 at: [http://www.ft.com/cms/s/0/e41cf61c-91e1-11e0-b4a3-](http://www.ft.com/cms/s/0/e41cf61c-91e1-11e0-b4a3-00144feab49a.html#axzz3KkdTf7Ut)  
38  
39 [00144feab49a.html#axzz3KkdTf7Ut](http://www.ft.com/cms/s/0/e41cf61c-91e1-11e0-b4a3-00144feab49a.html#axzz3KkdTf7Ut)  
40  
41

42  
43 Warren-Myers G, 2012, "The value of sustainability in real estate: a review from a valuation  
44  
45 perspective" *Journal of Property Investment and Finance* **30** 115-144  
46  
47

48  
49 Zhang Y and Andrew J, 2014, "Financialisation and the Conceptual Framework" *Critical*  
50  
51 *Perspectives on Accounting* **25** 17-26  
52  
53

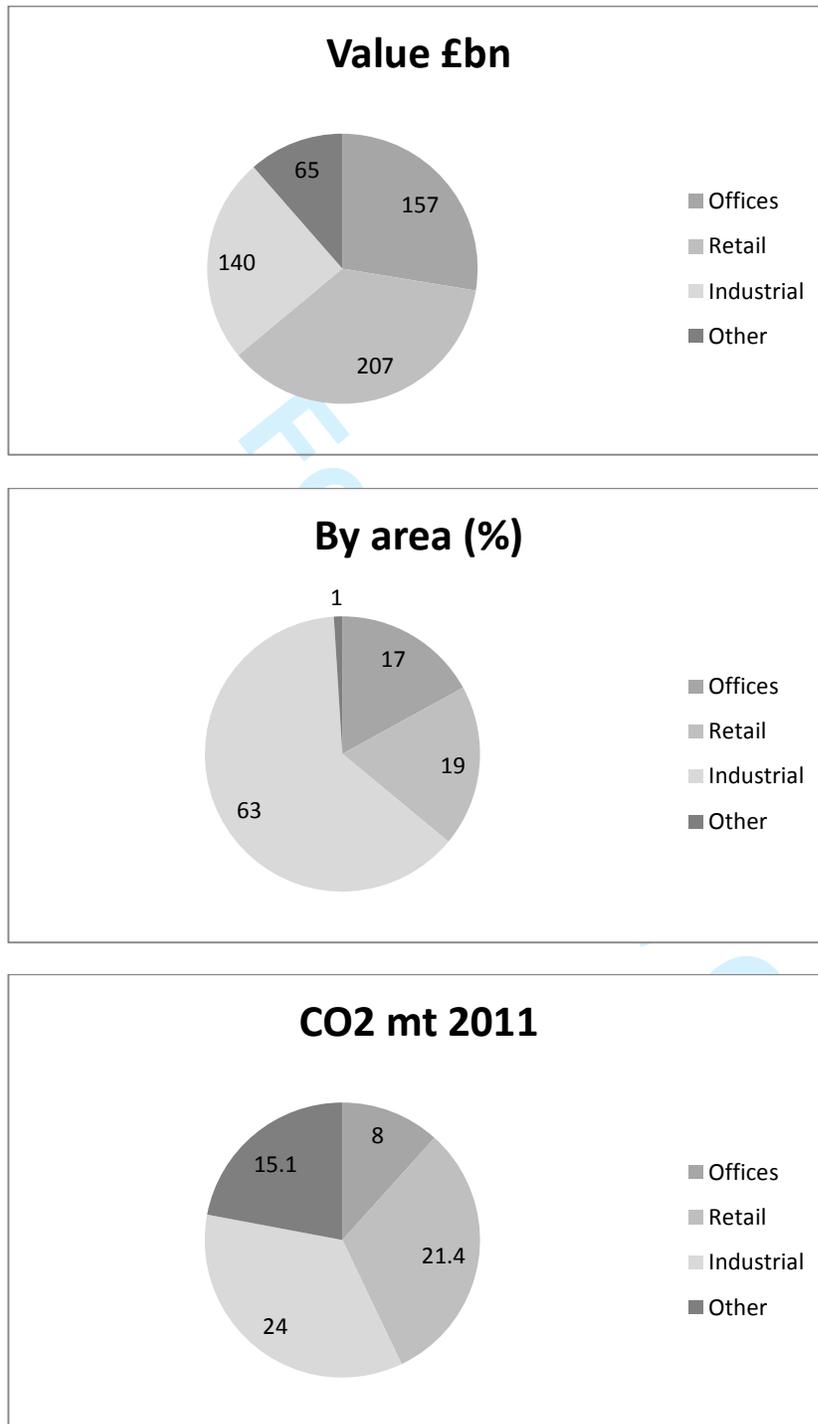
54  
55 Zurich, 2013, *Energy and Sustainability* Zurich White Paper (Zurich, London)  
56  
57

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**Figure 1** Commercial Property Sector UK



Source: GOS, 2008; RICS, 2013