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City of Rents: The limits to the Barcelona model of urban competitiveness

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Abstract

The turn towards the knowledge-based economy and creative strategies to enhance urban competitiveness within it has been well documented. Yet too little has been said to date about the transformation of land use for new productive activities, and the contradictions inherent to this process. Our case study is Barcelona, an erstwhile 'model' for urban regeneration which has sought to transform itself into a global knowledge city since 2000. Through the lens of Marxian value theory, and Harvey's writing on urban monopoly rents especially, we show how the 22@Barcelona project — conceived with received wisdom about the determinants of urban knowledge-based competitiveness in mind — amounted to an exercise in the capture of monopoly rents, driven by the compulsion of public sector institutions, financiers and developers to pursue rental profit-maximizing opportunities through the mobilization of land as a financial asset.

Introduction

Both long before and since the outbreak of the global crisis in 2007, urban governance agencies have been preoccupied with the need to enhance the competitiveness of cities (Harvey, 1989; Oosterlynck and González, 2013). From the OECD and the European Union, right down to local government, it is widely agreed that the urban scale is where natural endowments, good governance, business, human capital and branding strategies all come together to engineer the competitiveness of one place over others; and also that, in an increasingly globalized world, cities must enhance their competitiveness or suffer the consequences of economic decline, social disintegration, and urban decay. Increasingly, at the heart of this convergence around a 'competitive cities paradigm' (OECD, 2006; Musterd and Murie, 2010) has been a concern with the increased reliance upon the generation and use of knowledge as a major factor of production, technological innovation and, therefore, competitiveness in contemporary global capitalism (Florida and Kenney, 1991; Marceau, 2008). Furthermore, it is widely accepted that the urban scale can better foster a 'milieu of innovation' (Camagni, 1995), and the development of those knowledge or 'creative industries' into which an internationally mobile 'creative class' of talented innovators in research, design and entrepreneurial ventures are drawn

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(Florida, 2002; 2005). In short, cities and their immediate regions are now perceived to be key drivers of economic development (Simmie, 2001; Rodríguez-Pose, 2008), and the policies adopted by local public sector authorities are deemed to be crucial in strategically engineering the optimal blend of economic productivity, knowledge infrastructure and social capital that prepare cities for the 'knowledge based economy' (KBE) (Cooke, 2007; OECD, 2007).

There is already a considerable critical literature on urban competitiveness and the KBE-related issues introduced above, approaching the matter variously from the vantage point of cultural, socioeconomic and socio-spatial analysis (e.g. Peck, 2005; Wilson and Keil, 2008; Krätke, 2010; Brooker, 2012; Rodaki, 2012). Our analysis adds to this literature, but does so by adopting a different theoretical point of departure — that of Marxian value theory and the approach to understanding the urban process pioneered by Harvey in particular. To date, only a few researchers have attempted to bring questions of 'urban monopoly rent', 'capital switching' into the 'secondary circuit of capital', and the 'financialization' of urban development to bear upon urban transformations prior to the crisis that erupted in the UK and US in 2007 (for example, Fox Gotham, 2006; 2009; Aalbers, 2008; 2011; Rutland, 2010; Christophers, 2011).[1] In our view, the importance of such contributions is to show how attempts to manage the vicissitudes of capital accumulation through a variety of regulatory and institutional means — geared, for instance, to facilitating the increased liquidity of real estate in many parts of the world in the years preceding the current crisis — serve to fuel the process of crisis formation, and expose the contradictions of national and local state strategies (Burnham, 2002). In a similar vein, we show how an ambitious urban project in Barcelona, Spain, ostensibly conceived with received wisdom about the determinants of competitiveness in the KBE in mind, became an exercise in the capture of urban rents. As we demonstrate, this was driven by the rentier compulsions of state agencies, financiers and developers — all in the pursuit of profit-maximizing opportunities through the mobilization of land and property as a financial asset.[2]

Barcelona has often been held up as an erstwhile exemplar for successful urban regeneration through its organization of the 1992 Olympics (McNeill, 1999; Marshall, 2004), and has more recently attracted the attention of urban policymakers outside Spain as an aspirant 'global knowledge city' (Walliser, 2004).[3] By the late 1990s, concerns regarding the city's future competitiveness in the global economy became the driving rationale shaping Barcelona City Council's agenda for the coming decades (Pacte Industrial de la Regió Metropolitana de Barcelona, 2001; Monclús, 2003). In this second phase of urban transformation, as in the first, the public sector — specifically the city council — has taken the leading role in strategic planning (Garcia-Ramon and Albet, 2000). Indeed, for Casellas and Pallares-Barbera (2009), this is what distinguishes the

1 'Urban monopoly rent' is discussed later in the article. 'Capital switching' here refers to the periodic tendency for large magnitudes of overaccumulated capital to be switched into investments in the built environment, implying that intensified periods of urbanization tend to presage full-blown crises (Harvey, 1982: chapter 13). An analysis of capital switching in the Barcelona case is beyond the scope of this article since it requires an analysis of the more general business cycle (see Christophers, 2010: 98). The 'secondary circuit of capital', put simply, is 'the circuit comprising the built environment for production (e.g. infrastructure) and for consumption (e.g. housing)' (Aalbers, 2008: 149). In this article, we adhere to the specific conceptualization of 'financialization' that refers to the mobilization of land or property as a pure financial asset, in which rental payments are treated as interest payments (Harvey, 1982: 347; Haila, 1988; Swyngedouw, 2010).

2 Our contribution therefore complements an emergent body of literature on urbanization and crisis formation in Spain; see, for instance, López and Rodríguez (2010), Naredo (2009) and Observatorio Metropolitano (2007).

3 UK cities' continued interest in the Barcelona model attests to this. In 2010, delegates from the London 2012 Olympics Organizing Committee, and city council officials, development agencies and business sectors from Leeds visited Barcelona to learn from its approach to urban transformation (see http://www.leedsinbarcelona.com).

'Barcelona model' of urban competitiveness from others around the world. Barcelona City Council's more recent efforts have concentrated on the district of Poblenou — a nineteenth-century manufacturing center characterized a decade ago by the effects of deindustrialization and urban decay. Located on the coast to the south of the river Besòs delta, Poblenou was once the industrial heart of the city — the so-called 'Catalan Manchester'. During the twentieth century, largely unplanned urbanization produced a haphazard urban form deemed by many to be morphologically incongruent with respect to adjacent districts such as the Eixample. In 2000, the council designated Poblenou a 'new knowledge district', rebranded it '22@Barcelona', and set about a multi-million Euro project of urban regeneration (Clos, 2004).

Much has been written about this reorientation of the 'Barcelona model' towards engineering competitiveness in the KBE (García Ramón and Albet, 2000; Gdaniec, 2000; Marshall, 2004; Blanco, 2009; Casellas and Pallares-Barbera, 2009; OECD, 2009; Pareja-Eastaway, 2009; Charnock and Ribera-Fumaz, 2011; Degen and García, 2012). This article is the first analysis to suggest that this has been part of an attempt to reengineer Barcelona's competitiveness away from a dependency upon successful competition within what Harvey (1989) terms 'the spatial division of consumption' (primarily, in the Barcelona case, competition for revenues from mass tourism and international conferencing), and towards competitiveness on the basis of the city's successful insertion into the 'spatial division of [knowledge-based] production'. There is, we agree, a lack of consensus about what constitutes the so-called KBE, let alone how a city can successfully compete within it (Markusen, 2003). Our intent here is therefore not to evaluate the competitive potential of Barcelona on such terms. Rather, we employ Marxian value theory so as to illuminate the underlying — and as yet under-researched — material basis of Barcelona's model of urban transformation, with an empirical focus upon the 22@ project as an emblematic example of public sector-led renewal. We highlight Barcelona City Council's use of, what has been termed, 'Value Capture Financing': a mechanism designed to stimulate private investment in the 22@ knowledge district. We show how the transformation of Poblenou into a 'new knowledge district' has been bound up with attempts to create value out of the treatment of property as a financial asset. Through the examination of three specific real estate developments that were officially earmarked for the incubation and concentration of knowledge-intensive small to medium-sized enterprises (SMEs), we suggest that — in reality — the transformation process has been largely determined by *rentier* practices to capture monopoly rents. And, since this process itself was related to a renewed compulsion on the part of the City Council, financiers and developers to pursue rental profit-maximizing opportunities in the context of the last Spanish property boom (1998–2007), we show how the process has itself been limited by the crisis of that ill-fated boom. In a broader sense, then, we provide a contemporary example of value determining land use, and of how the allocation of land and properties 'takes place under the auspices of rampant speculation, artificially induced scarcities', and therefore, 'loses any pretense of having anything to do with the efficient organization of production and distribution' (Harvey, 1973: 190).

Monopoly rent and the financialization of property

Following Marx, in Volume III of *Capital*, we begin with the claim that the basis of ground-rent in capitalism is 'that certain persons enjoy the monopoly of disposing of particular portions of the globe as exclusive spheres of their private will to the exclusion of all others' (Marx, 1981: 752). In order to gain access to non-renewable natural resources attached to such portions of land, or to non-replicable locations, capitalists must cede a portion of surplus-value. The resulting income for the landowner 'is known as ground-rent irrespective of whether it is paid for agricultural lands, building land, mines, fisheries or forests' (*ibid.:* 755–56). Marx originally focused his discussion in

Capital upon 'differential' and 'absolute' forms of ground-rent in the context of agricultural production, in an attempt to disentangle the complex conditions (such as location, fertility and technological development) that impact upon the flow of surplus-value between and within sectors.[4] Marx's advance over Ricardo was to show how even marginal landowners could claim a rent without resorting to selling agricultural products at prices above their value, and, in so doing, was able to develop a theory of ground-rent that was consistent with his labor theory of value.

A more specific point Marx was able to explain concerns the instance in which the social power of private ownership can itself create a rent, that is, 'monopoly rent'. In this instance, the owner of a special and limited resource (Marx uses the example of a small but high quality vineyard) can charge a monopoly price, by which 'we mean any price determined simply by the desire and ability of the buyer to pay, independently of the price of the product as determined by prices of production and value' (Marx, 1981: 910). Harvey has contributed much to the development of the category of monopoly rent, and in the context of his theorization of the 'urban process' in contemporary capitalism. For Harvey, urban monopoly rents can arise in two, often intersecting, scenarios: first, indirectly, when 'social actors control some special quality resource, commodity, or location, which in relation to a certain kind of activity, enables them to extract monopoly rents from those desiring to use it' (Harvey, 2001: 395); and second, directly, when land itself is traded, such as through real estate investment speculating upon future values, denoting that it is the uniqueness of the site which forms the basis for an independently determined monopoly price. In the former locational scenario, 'it would be centrality (for the commercial capitalist) relative to, say, the transport and communications network or proximity (for the hotel chain) to some highly concentrated activity (such as a financial center). The commercial capitalist and the hotelier are willing to pay a premium for the land because of accessibility' (*ibid.*: 396) In the case of the latter scenario, it is the scarcity of certain buildings or land that permits landlords and developers to engage in monopoly pricing and speculative investments. As we suggest later, both forms of monopoly rent capture have been prevalent in the 22@ project.

At a lower level of abstraction, and taking into account the agents that intervene in the production and redistribution of surplus-value, Harvey suggests that the necessary creation of a material physical infrastructure for production, circulation, exchange and consumption — in essence, the urban process in capitalism — is one in which a host of *dramatis personae* periodically enter the picture: '*Landowners* receive *rent*, *developers* receive *increments in rent* on the basis of improvements, *builders* can earn *profit of enterprise*, *financiers* provide money capital in return for *interest* at the same time as they can capitalize on any form of revenue accruing from the use of the built environment into *fictitious capital* (property price), and the *state* can use *taxes* (present or anticipated) as backing for investments which capital cannot or will not undertake but which nonetheless expand the basis for the circulation of capital' (Harvey, 1982: 395). The

4 In Marx, the transformation of surplus-value into ground-rent assumes two forms: differential ground-rent (DRI and DRII) and absolute ground-rent (AR). DR derives from the individual private monopolies over land in the same sector with differentially favorable natural conditions (Marx, 1981: 779–87). Lands that raise productivity — as a result of either differential fertility/location (DRI) or of greater applications of capital to lands of the same quality (DRII) — and which thereby lower individual production costs below prevailing market norms, are extremely attractive to capital. Competition to access these lands can be capitalized by landowners into higher rental prices, allowing the landlord to capture extraordinary profits in the form of DR. AR is based upon Marx's argument that, because of the relatively higher content of living labor embodied in them, the value of agricultural products can be higher than their price. And, because of the institution of private property, this difference is not equalized across sectors of the economy. Therefore, even on marginal lands for which there is solvent demand, a rent must be paid. This can take the social form of monopoly power and allows commercial prices to be set further above prevailing market norms to include a rent that must be paid by the capitalist to access a privately owned non-reproducible natural resource.

Marxian theory of value therefore becomes an essential point of departure for Harvey's understanding of how *rentier* practices shape and reshape cities.[5] This not only connects Marx's theory of the overaccumulation of capital in general, and therefore of crisis formation in capitalism, with urban land markets and speculative property development, but also links together the circulation of rents and finance capital through the concept of 'fictitious capital'. As Harvey explains, when land is treated as a pure financial asset:

> the rent figures in [the buyer's] accounts as the interest on the money laid out on land purchase, and is in principle no different from similar investment in government debt, stocks and shares of enterprises, consumer debt and so on. The money laid out is interest-bearing capital in every case. The land becomes a form of fictitious capital, and the land market functions simply as a particular branch — albeit with some special characteristics — of the circulation of interest-bearing capital. Under such conditions the land is treated as a pure financial asset which is bought and sold according to the rent it yields. Like all such forms of fictitious capital, what is traded is a claim upon future revenues, which means a claim upon future profits from the use of the land (*ibid*.: 347).

In such a manner, 'property comes to be treated by all types of owners less for the uses that can be made from it, and more for the money that can be extracted from it — it becomes, in a word, financialized' (Christophers, 2010: 98).

Such practice is not confined to private owners and developers. As Haila (1988: 92) has argued, 'rent-maximizing behavior is not alien even to the state and city authorities'. By acting in the role of the landowner, public sector institutions can also seek to capitalize on rising land prices by raising the 'calculated shadow price of their landed property'. Thus, public sector intervention can directly impact upon rent levels, whilst new tax revenues can be capitalized out of rising land values. Lauria (1984: 20) has further shown how 'the channeling of capital from the state increases the property values or the potential ground rent; this provides incentives for private development'. Such rent-maximizing behavior, including that of the public sector, has gained added significance in recent decades, now that property titles have increasingly assumed the form of financial assets. As Swyngedouw (2010: 315) claims:

> this is the fully developed capitalist form of the mobilization of land . . . there is a complex and dynamic relation at work under capitalism that combines the continuous production and transformation of locational rents (for example through speculative real estate urban redevelopment), the production of temporary monopoly rents (cashing in on design, climate, amenities, 'cultural capital', and the like), the involvement of the state in producing geographical configurations that enhance the differential rent for specific locations and so on. The financial crisis starting in 2007 undoubtedly arose out of the extraordinary speculative carousel of increasing rents while turning these promises into fictitious capital assets through complex derivative financial instruments. As with all forms of fictitious capital formation, these speculative carousels are sustained as long as the promises for securing future value entitlements are maintained.

Notwithstanding the 'empirical intractability' of a Marxian rent analysis (*ibid*.: 311), we aim to show that the concrete development of the 22@ project in Barcelona has in fact been largely coordinated by the financialization of property and concomitant mechanisms of monopoly rent capture Swyngedouw describes.

5 The application of rent theory to the urban context has been much debated. Ball (1985), for example, has argued that a general theory should be rejected and instead proposes a 'structures of building provision' approach that can better grasp the complexities of land ownership and rentier practices. Kerr (1996) has defended the general theory. A full treatment of these controversies is beyond the scope of this article, but for other key contributions to the debates see Harvey (1974), Fine (1979), Haila (1988) and Edel (1992).

Barcelona: city of innovation?

In 1998, Spain was to embark upon a property boom that would last the best part of a decade. The boom was an expression of three intertwined processes: the reform of land and planning policy and associated shifts in banking behavior at the national level (Cladera and Burns, 2000); deeper regional monetary integration with the introduction of the Euro, which allowed for the maintenance of low to negative real interest rates for a sustained period (Bernardos Domínguez, 2009); and a general trend towards capital switching and the financialization of urban assets at the global level that made Spanish land and real estate an attractive investment opportunity (González Pérez, 2010; López and Rodríguez, 2011: 13). Also in 1998, fresh discussions were underway within Barcelona's council and town planning agencies as to how to best initiate a second phase of post-Olympics urban regeneration in the city, focusing upon the district of Poblenou, and in line with the recent reform of the city's General Metropolitan Plan (Oliva, 2003). The 22@ project, which rebranded Poblenou as a 'knowledge district', was eventually unveiled in 2000.[6] Under the new plan, real estate developers could build higher than the three floors previously permitted (densification went from 2.2 m^2 to 3 m^2) and were allowed to mix commercial and residential developments. The redevelopment aspect of the project was on a considerable scale, covering 198.26 hectares, and leading to the estimated transformation of 1,159,626 m^2 of existing industrial land and the potential creation of around 3,200,000 m^2 of new construction. It was to legally recognize 4,614 existing homes and construct 4,000 new subsidized units; it was to create 114,000 m^2 of green area land; and to involve a total investment in infrastructure of €180 million — the largest project of its kind in Europe.

But what marks the 22@ project out is its representation by BCC and its partners as a project that is tailored towards making the district — and the city — a leading node in the global knowledge economy. This entails a focus on the public sector-led engineering of the 'hard' and 'soft' conditions for future competitiveness (Pareja-Eastaway *et al*., 2007), and upon exploiting the competitive advantages supposedly offered by Barcelona's compact urban morphology and its attractiveness to a globally mobile 'creative class' of knowledge-based entrepreneurs and workers (Charnock and Ribera-Fumaz, 2011). Crucially, then, the overarching rationale for the project, as denoted by its branding as an innovation district, is rooted in the City Council's embrace of contemporary economic theories that highlight particular factors that come together to allow specific locations to innovate in high-knowledge intensive productive sectors, and to compete globally on that basis (Leon, 2008).[7]

The promotion and management of the 22@ project is overseen by the municipal company 22@bcn Inc. Created in 2000 by the City Council, this is the agency tasked with financing the transformation of the urban environment, channeling funds into ICT-focused employment and training schemes, and promoting new businesses in the area domestically and internationally. Part of the rationale of the institutional design of the project is to link these activities with the start-up incubators housed within Barcelona Activa's premises, located in Poblenou since 2004. As the City Council's local development agency (see OECD, 2009), Barcelona Activa has played a key role in the city's economic development since 1986. After being incorporated into the 22@ project, it began specializing in the mentoring of small firms (averaging 5.7 employees) in

6 The '22@' brand denotes a new information-age spin on the GMP, in which land exclusively designated for industrial use was formerly given the classification '22a'. Regulations have been amended to cover '@ activities': i.e. new information and communications technology industries, R&D, publishing, multimedia and database and knowledge management.

7 The 'clustering' strategy integral to 22@ is a case in point (Cooke, 2001; Porter, 2008), since the concerted gathering together of R&D laboratories of large firms and/or governmental research institutes, located in close proximity to technological colleges and universities, is said to be a good example of a 'triple helix' planned innovative milieu (Etzkowitz and Leydesdorff, 2000).

the ICT and business services sectors (Lladós-Masllorens *et al.*, 2009: 219). This new remit was representative of the 22@ project's broader rationale: to reengineer the competitiveness of the city on the basis of received wisdom regarding urban competitiveness in the KBE, and in acknowledgment that the impact of the earlier phase of Olympics-led regeneration was limited largely to successful rebranding within the global tourism economy.

Over a decade ago, Harvey (2001: 405–7) had already taken an early swipe at the City Council's strategy for urban transformation precisely for its 'amassing of symbolic capital and its accumulating of marks of distinction' in an attempt to generate monopoly rents as high revenues from consumption (most conspicuously from tourism) flowed through the city. The upshot of this, for Harvey back then, was to overinflate property prices, to implicate Barcelona in the serial and homogenizing replication of place (*pace* Boyer, 1988), and to incite the resistance of neighborhoods opposed to gentrification and the destruction of sites of collective symbolic memory (see also Pascual-Molinas and Ribera-Fumaz, 2009).[8] So, to what extent has this trajectory of urban transformation in the city been transformed under the 22@ project? Our answer is in essence 'not very much', and is substantiated in two parts: in the following section, we examine the underlying mechanisms for the financialization of property development in Poblenou under the 22@ project, and the effect of this upon patterns of urban development; and, in the final section of the article, we look at the fate of the 22@ project in the current context of a generalized crisis of overaccumulation since 2007.

Barcelona: city of rents

Our claim is that urban transformation under the 22@ project has continued to have at its material basis the appropriation of urban monopoly rents — rents of a clearly financialized character. At the heart of the reform of the General Metropolitan Plan and the redevelopment of Poblenou is an urban redevelopment financing model that is dependent upon the generation and capture of revenues by the municipal company 22@bcn Inc., major real estate developers and private investment fund managers. The model adopted by the city council as a means of leveraging capital to redevelop Poblenou has been termed 'value capture financing' (VCF); and the Urban Land Institute has cited the 22@ project as a best practice example of its operationalization (Huxley, 2009). VCF is precisely the kind of supply-side regeneration financing mechanism characteristic of entrepreneurial urban governance (Harvey, 1989), in which the local state minimizes the debt it takes on from large-scale redevelopment whilst incentivizing the private sector — developers, investors and ultimately companies — to invest, with the potential to appropriate anticipated rents through facilitated access to public lands (see Ingram and Hong, 2012). In essence, it is said to be:

> a finance mechanism which not only shares the risks and costs of urban development between public and private actors, but also the rewards. VCF sees some of the costs associated with making urban development succeed internalized within the balance sheets of the developments themselves. Public goods are consequently provided by urban development without the proportional draw on the public resources which would otherwise finance them . . . VCF can therefore be described as the appropriation of value, generated by public sector intervention and private sector investment in relation to an underused asset (land and/or structure), for local re-investment to produce public good and potential private benefit . . . a win-win situation . . . (Huxley, 2009: 7).

8 Harvey has since republished these criticisms in *Rebel Cities* (2012: 104–6), and reiterated his disapproval of Barcelona's post-Olympics development in a recently published interview (Harvey and Robles-Durán, 2011: 36–7).

VCF in Barcelona has been realized through the exchange of development and building permits, based on plans approved by the City Council. The plans were a mixture of public and private initiatives and, in exchange for building permits, the City Council would lay claim to between 10% and 30% of the planned development, or the equivalent in monetary terms, and would charge a levy of €80 per m^2 of land developed (a charge updated every year). In addition, the city council has acted as a brokering agent between local institutions and financial capital, facilitating the circulation of capital through — and generation of rents from the transformation of — the built environment (see Table 1).

As the discussion in the first section of this article outlined, land and property create no new value (once the labor process to construct property is complete). Rather, their price can be capitalized into a stream of rents, the source of which is a deduction from surplus-value produced elsewhere by 'true capitals' (Campbell, 2002: 231). In the following discussion of the 22@ project, therefore, we show how the VCF framework is

Table 1 VCF in the 22@Barcelona project

VCF Component	Definition of the Component	The Component in 22@
(i) Value creation	The unlocking of and increase in the potential value of under-used assets (land and/or structures as a result of public sector intervention to stimulate demand from the private sector.	Old industrial land in Poblenou
(ii) Value realization	Subsequent investment and development from the private sector which ensures that potential increase is realized.	Newly classified commercial land (industry to services) with potential for increased value after public sector intervention (The reclassification of land from industrial to services and increased density rights granted)
(iii) Value capture	Arrangements by the public sector for the acquisition of a proportion of private sector returns for local reinvestment. This can take the form of monetary or in-kind contributions from the private sector to public actors.	*Private value capture* Development site with actual increased value after private investment (Planning and direct investment by numerous private sector actors) (Sale and rent from office units) Private sector return on investment Net private sector profit *Public value capture* (30% land area transfer or equivalent monetary contribution) (€80/m^{2}development levy) Increased public sector returns and assets
(iv) Local value recycling	The reinvestment of acquired monetary or in-kind contributions from the private sector within the same development site or scheme. This reinvestment can pay for the initial public intervention but tends to fund further interventions. These further interventions must have a public good element to them but may also benefit the private sector by consolidating gains already made.	Public led construction of social housing and knowledge-based infrastructure and green space
(i) The loop begins again . . .		

Source: Adapted from Huxley (2009)

based upon a fetishism, since it conceals — to paraphrase Marx (1981: 909) — that 'it is the ground-rent and not the [properties] themselves that forms the real basic object of speculative building'.

In 2001 alone, and at the height of the last Spanish property boom, Barcelona received €800 million of investment in real estate — 70% of which was of foreign origin at a time when global pension funds, in particular, targeted the office real estate market as a stable source of financial investment (*Europa Press*, 2002). Barcelona was particularly attractive since profitability in its property investment market surpassed that of cities such as Frankfurt, London and Milan (*El Periódico*, 2002a). At the time, and given extremely low interest rates and the relative lack of other investment opportunities, large investment funds targeted single flagship developments of €20 million and above — the kind of properties that until the emergence of 22@ were in scarce supply in Barcelona. The subsequent appearance on the market of large single developments with rates of return of above 7% became particularly attractive to large investment fund managers. The general manager of Invesco Real Estate, Tim Nalder, captured the mood when he stated that 'we forecast good future capital appreciation of the location because of the perceived strategic importance that 22@Barcelona represents to the city's office market as well as excellent infrastructure' (quoted in Huxley, 2009: 24).

The financialization process in which properties were developed in Barcelona for the rent they might yield was realized through so called 'turnkey' transactions. These involve the delivery of a property by a developer to an investor according to a contractually defined cost and time period. Most developments, especially in 22@, were based upon advanced sales without the ultimate guarantee of finding an occupant for the building, and therefore without specific information as regards the kinds of knowledge-based activity that could be capitalized into a stream of rents for the investor. Indeed, to qualify for full development rights within the zone, developers were obliged to guarantee 20% of the final space for knowledge-related activities. However 'the broad definition of the concept "knowledge-related" and the low percentage required for full development rights to be granted, facilitate developers qualifying for this allowance' (Casellas and Pallares-Barbera, 2009: 1145). This shows how monopoly rent factors such as location (22@'s centrality) and scarcity (the paucity of large developments) formed the basis of demand, with a large degree of autonomy from the supposed requirements of KBE competitiveness.

While new building purchases ensured that profits accrued to both public and private developers under VCF, they also established a pattern of selling generic new office developments on a turnkey basis.[9] In 2004, for example, CS Euroreal (a real estate investment fund of Credit Suisse) bought a new office tower in 22@ for around €70 million from the property developer Layetana. The tower was finished in 2007, and was heralded as part of the new wave of such investment in 22@ (*Expansión*, 2004a). Also in 2004 and 2005, the property fund of Spanish bank BBVA, the German real estate investment fund Difa, and the French investment fund AXA acquired new office towers in the same locality for €70, €78 and €39 million respectively (*Expansión*, 2004b; *La Gaceta*, 2005).

From this point onwards, it is telling that 22@ became the city's epicenter for office-based real estate demand, taking over from established districts such as the Eixample, where real estate costs had been 40% higher (*El Periódico*, 2005). Two interrelated patterns have therefore emerged out of the mechanisms of capital investment via VCF into the 22@ district. First, city-center areas have been steadily converted into additional spaces for luxury consumption and tourism (Bernardos Domínguez, 2009:

9 Although it arguably overstretches the concept in relation to use-value, Charney's (2001: 744) labeling of such buildings as *exchange value properties* perhaps serves as a heuristically useful signifier of extreme cases of 'value determining use', and of rent serving as the allocating coordinator of land use (as in Harvey, 1973: 190).

28), while city-center firms have relocated across the city in search of cheaper office spaces — often incentivized by public funds and/or an eagerness to capitalize on anticipated rises in land prices in 22@.[10] By 2006, 75% of newly located companies in 22@ were in fact relocations from within the city itself (*El País*, 2006a). Meanwhile, between 2002 and 2005, 334,000 m^2 of office space in the central Eixample district was converted into hotels and private residences (*El País*, 2006b). This pattern highlights the contemporary form in which value acts as the principal coordinating mechanism for land use in Barcelona; and that what still determines the city's development, over a decade after Harvey's original critique, are 'the processes [mainly value-flows through the city from tourism] which permit absolute and, even more importantly, monopoly rents to be charged' (Harvey, 1973: 188). Second, the bulk of real estate developments in 22@ have eschewed the supposed requirements of knowledge-based SMEs for smaller units within large developments, and in favor of making rental profit-maximizing turnkey properties available to larger pre-established firms and tourism-related businesses. By 2006, only 30% of newly located firms in 22@ were dedicated to new technologies and ICT; the remainder were drawn from sectors such as marketing (28%), hotels (24%), finance and insurance companies (20%), and real estate and construction companies (17%) (*El País*, 2006a). In 2008, 40 requests were made by local firms for office space of 250 m^2 and below, all of which were unsuccessful, and as developers reported the cost of transforming large floors to suit small firms to be too prohibitive (*Cinco Días*, 2008).

In addition to this general picture there are individual instances of the manipulation of land rights, and of buildings being developed according to the dictates of rental-profit maximization and revenue generation for 22@bcn Inc. and Barcelona Activa. We focus upon three examples, in turn.

Torre Llacuna

This was one of the first major office promotions to take place under the 22@ plan and, as such, it is useful to see this as a test case or laboratory for the type of value capture mechanisms operationalized through the new built environment.[11] In March 2001, BA issued land and construction rights to Prominmo SA, the real estate arm of the savings bank La Caixa. The lease was granted for a 50-year period, after which time the building would become the property of BA (who also remained full owners of the land). The terms of the contract specified the design and end use of the building. It was agreed that the building should only house what are termed '7@ activities' — those relating to public facilities, activities related to new technologies and productive activities based in the ICT sector — and that no single company could take over more than two floors of the building. Under the VCF initiative it was reported that in addition to a total investment of €13.8 million, Prominmo would have to pay a further €6 million in four installments (*La Vanguardia*, 2003). The project faced public opposition to both the scale of the building and the rezoning of activities (away from traditional public facilities) to include traditional private sector companies. Neighborhood groups sought to challenge the lack of public participation and perceived subordination of the 22@ plan to the interests of large firms (*ABC*, 2002). Despite protests, the Torre Llacuna building was completed in November 2003 (a year later than the original projection). At this time, Caser, a large insurance company, began negotiations with Servihabitat XXI (the new name of Prominmo) to take on new office space in the tower. A rental agreement was signed for

10 This conversion of central zones into further spaces for consumption and luxury accommodation — driven by capital seeking highest returns — has also led to an undersupply of offices, feeding demand for offices in newly developed areas such as Poblenou.

11 Details of this development were confirmed by means of our consulting of public land registry certificates in June 2012.

three floors in the building (covering 2,000 m^2) to be used as a call-center. In short, both the amount of floor space occupied and the type of activity undertaken in the building contravened the original contract. This, we suggest, points toward the profit-maximizing behavior of the real estate developer looking for secure tenants.

In 2005, changes were made to the concession rights by 22@bcn Inc., extending the time period from 50 to the legal maximum of 75 years. This change was reported as anticipation of the sale of building by Servihabitat to the real estate arm of Caja Madrid (Madrid Patrimonio Inmobiliario FII) for €22 million (*Expansión*, 2005). Changes to the concession period boosted both the salability of Servihabitat's real estate asset and the negotiating power of the City Council and Barcelona Activa to increase the payments demanded as part of the VCF initiative. This, we claim, highlights how the manipulation of land rights provided a mechanism of monopoly pricing through the VCF framework, allowing the City Council to maximize its appropriation of rents.

Can Jaumandreu

A second example of the extent to which public entities initially intended to support the city council's knowledge economy strategy became bound up within the web of real estate speculation can be seen in the role of Barcelona Activa and the redevelopment of the Can Jaumandreu complex — a 12,000 m^2 plot of land containing a former textile factory and two newly constructed buildings. In 2002, Barcelona Activa announced the factory would be remodeled to house a training and education center for young unemployed people with no formal education (*El Periódico*, 2002b). This was to be financed by the city council and the European Regional Development Fund to the tune of €2.7 million. In addition, and in exchange for facilitating the redevelopment project and the construction of a third building, Barcelona City Council ceded building and development rights under the VCF framework to the real estate developer Cape Cod for a period of 50 years and in exchange for €16 million of investment and a level of taxation of €4 million for the duration of the contract (*El Periódico*, 2002b). Cape Cod 2001 S.L. is an amalgam of Espais and Provasa; the latter is the real estate holding company of the savings bank Caixa Sabadell. However, in 2007 the investment manager Invesco purchased the Can Jaumandreu complex for €33 million, through a German venture capital fund and in a move facilitated by the City Council (*La Gaceta*, 2007). This meant that Barcelona Activa and Cape Cod 2001 S.L. could benefit from the quick turnover of a real estate asset. The latter appropriated significant profits from the sale price (almost double the original investment, discounting taxes), while Barcelona Activa could lay claim to a fresh stream of tax income from the new land owner under VCF, which, as paralleled in the above case of Torre Llacuna, also involved the extension of land rights to the legal maximum of 75 years.

In addition, and given that public subsidies were a major part of the project designed to create adequate floor space for SMEs, it is also worthwhile considering the effect the sale of the building had upon the type of prospective tenants. In 2006, and in recognition of the failure to have established adequate floor space for SMEs in 22@, the Fundación Centro de Innovación Barcelona Media (formed by the Catalan regional government, the city council, the University Pompeu Fabra, and 14 companies in the telecommunications sector) leased one entire building in the Can Jaumandreu complex. The building has 6,026 m^2 of floor space, of which the foundation took up between 100 and 300 m^2 while the rest was set aside to be sub-let to technology and media SMEs looking for space between 100 m^2 and 1,000 m^2. This initiative failed to generate new occupancy and, in the absence of rent paying tenants, the Council has now resorted to installing its own departments in the building, such as the public housing office and the department of urbanism. This serves as an example of property being withdrawn from production until sufficient rents can be realized.

The PYMES-TIC Interface Building[12]

Financed in part by Bank Sabadell (€29 million), the construction firm Grupo Castellví signed an agreement with 22@bcn Inc. to construct a building suited directly to the needs of small ICT-based firms and in accordance with the knowledge economy vision for 22@.[13] The 18,500 m^2 available for rent was touted as being equipped with the latest technologies and equipment, services such as marketing to commercialize products internationally, and with access to in-house experts to provide guidance in accessing venture capital. The property was to be retained by Castellví but leased through a Dutch multinational, Zernike, a company that specializes in technology parks for small ICT companies (*Iberonews*, 2006). However, as of 2008 the first seven floors of the building had not been occupied by ICT SMEs and start-ups, but by a single firm, Indra — a 'global technology, innovation and talent company'. In a change of rhetoric, Albert Sanders, vice-president of Grupo Castellví, explained this as being the product of a pragmatic strategy to minimize risk and establish stable, long-term tenants (*El Periódico*, 2008). Floors 10 to 12 had been occupied by BCC agencies under the VCF agreement, while Grupo Castellví could only report expressions of interest for the ninth floor (which remains vacant at time of writing) (*El Periódico*, 2008). Barcelona City Council eventually instructed Grupo Castellví to compartmentalize the eighth floor, at least, into 50 m^2, 100 m^2, and 150 m^2 modules for the express use of SMEs (*Cinco Días*, 2008).

These examples show how, despite the original intentions of the 22@ plan, new urban developments in 22@ have been treated by various agents in the process as pure financial assets: how real estate developers sought quick sales or the installation of large clients to ensure rental profit-maximization; how finance capital was attracted by large scale secure investments with rental yields of 7% (crucially, determined by factors unconnected to the KBE); and how 22@bcn Inc. was able to buffer its balance sheet while at the same time reneging upon, or leaving unfulfilled, the original intentions to install knowledge-based SME incubators and work spaces in the district and in line with the city council's vision for enhanced competiveness within the KBE. In other words, the city council (acting as the landholder) along with real estate developers and finance capital (acting as property title owners) have been able to manipulate the value of single large developments as direct sources of monopoly rents. The following section explores the impact of the crisis on 22@ from 2007 and the outbreak of the global crisis that was to trigger a crisis in Spain in 2008. Specifically, we examine the oversupply of office space, the effect on rent levels, and the response of the city council.

Barcelona and the current crisis

According to global real estate consultants Cushman & Wakefield Inc., 2006 was a boon year for the offices real estate market in Barcelona as investment reached a record level of €1.627 billion, up 46% from the previous highs recorded in 2005 (*El País*, 2006b). As suggested above, the impetus behind this boom was the purchase of large buildings and the contracting of over 375,000 m^2 of office space for rent; 70% of which were located in new business districts such as 22@. Forecasts at the time predicted that the same levels would be maintained in 2007, with further buildings and up to 788,917 m^2 of new floor

12 PYMES-TIC is the Catalan acronym for ICT-SMEs.

13 Grupo Castellví is the largest developer in 22@. It already owns two other buildings in the 22@ district, which together total 45,000 m^2 of rental space, and has embarked upon another large-scale project, the 22@ Business Park. This will cover 46,000 m^2 and will be comprised of four new buildings. Two of these have been let to two single clients in their entirety: the Comisión del Mercado de las Telecomunicaciones, and the communications group Bassat Ogilvy (*Europa Press*, 2010).

space becoming available. The strategies of real estate developers, especially the listed companies and investment groups, were feeding the development boom through turnkey transactions. In this way, the financialization of property titles fed the more pragmatic and short-term profit-maximizing tendency and the rapid turnover of generic properties for large, single firm occupancy, as well as office oversupply in the district.

Despite concerns about the Spanish property bubble emerging in 2007, the initial sentiment among local developers and real estate companies, at least, was that the office market in Barcelona would hold up better than the general experience of residential development where chronic oversupply, non-performing loans, a lack of cheap global liquidity, and falling prices heralded a property market crash. As average rental yields fell to 4%, just as 87 new buildings and 1.2 million m^2 in office space was about to enter the market, the slack was taken up by the aggressive expansion into 22@ by national firms such as Colonial, Metrovacesa, Sacresa and Habitat — all of which still possessed sufficient liquidity and access to cheap finance (*La Vanguardia*, 2007). The expansion of projects in 22@ continued unabated into 2008 (*La Gaceta*, 2008). However, the combination of market saturation and falling rental yields saw the sale price of office buildings fall by 20% into 2009 and demand fell by 40% on the previous year (*Expansión*, 2009; *La Gaceta*, 2009). In 2009, most developments in 22@ halted for the short term at least. By 2011, 823,081 m^2 of office space was recorded as vacant (14.2% of the 5.8 million m^2 total), up from 10% in 2010 and 7.7% in 2009 (*El País*, 2011). Then 2011 marked the bottoming out of the office market in Barcelona as the level of investment declined responding to a fall of 46% on the yield of properties, as compared to the level reached in 2007 (*El Periódico*, 2011). The lack of new supply and price stabilization followed a similar trajectory to that of the post-Olympics property market crash in 1992, when the market remained stagnant for almost 4 years and yield fell even further, by 64.5%. In response to the problem of vacant floor space, Jordi William Carnes, former Deputy Mayor and then President of 22@, stated: 'We have reached a maturation phase in which the [real estate] operators are reflecting upon the space they use. This is not to occupy for the sake of occupying *but about getting a return from space*' (*El País*, 2010a, our translation and emphasis).

In the light of the crash, the extent to which public entities designed to support the knowledge economy strategy became bound up with real estate speculation can be seen in the bankruptcy of two major Catalan real estate companies operative in 22@: Habitat and Sacresa. During the boom, both companies took out large loans to finance acquisitions and consolidate their share of the real estate market (EFESE, 2005; *Cinco Días*, 2006). Part of their expansion costs were funded by the Institut Català de Finances (Catalan Finance Institute, or ICF), a public credit institution of the Catalan regional government whose remit is the provision of long-term financing both to the public and private sectors, and SMEs, in order to promote the growth, innovation, competitiveness and internationalization of Catalan businesses. In 2006, the real estate division of Ferrovial, the fourth largest global infrastructure company, was acquired by the Habitat real estate group for €2.2 billion, €1.6 billion of which was debt leveraged (*El País*, 2006c). The deal was fixed by a joint mortgage guarantee entered into by the ICF and led by savings bank La Caixa, along with a host of other financial entities such as Banco Sabadell and Santander. The ICF pledged €100 million for its part and defended the investment in terms of supporting Catalan business. A similar deal was struck by means of a joint mortgage guarantee between the Royal Bank of Scotland and a consortium of international and national banks and regional savings banks (*cajas de ahorros*), so as to invest €81.3 million in Sacresa's expansion. Sacresa, the oldest real estate group and construction company in Catalonia, had become Spain's largest when they attained a total of 85% of rival Metrovacesa's assets in 2006. Both Sacresa and Habitat employed a practice common to many Spanish developers of the time, whereby debt leveraging became the easiest way to expand their asset base and increase returns to shareholders without reinvesting profits. However, the scale of debt leveraged meant that when the downturn arrived developers were unable to draw upon internal resources to weather the crisis. In 2008, Habitat failed to refinance its debt of €2.8 billion; in 2010, Sacresa announced that it was unable to meet repayments on its debt of €1.8 billion (*Cinco Días*, 2010). The exposure of the ICF in this amounted to €181.3 million, which makes up half of the total defaults — or non-performing loans — on the ICF's balance sheet. This, along with the bleak economic outlook for Catalonia, was a significant factor in Standard and Poor's decision to downgrade the ICF on 8 May 2012 (Standard and Poor's, 2012).

Ostensibly, and for a while at least, the onset of the global crisis failed to deter the then socialist-led city council from pursuing its urban entrepreneurial strategy. In 2010, it initiated new large-scale urban development projects (*Financial Times*, 2010), while continuing to market the city globally (e.g. http://www.barcelonaexposhanghai.com), to host major international knowledge economy events (e.g. http://www.hitbarcelona.com), to further endorse public-private partnerships in large public works (*El País*, 2010b), and to step up its efforts to attract and retain talent from abroad (see http://www.doitinbcn.com).[14] However, certain indicators began not to bode well for the city: by mid-2010, the growth forecast remained low due to a dependence on low value added exports, and the number of unemployed grew by 17% from 2009 (Ajuntament de Barcelona, 2010). Concerns remained about the 22@ project itself (for example, low quality human capital in the local labor market, small scale entrepreneurial activity, scarce venture capital, a failure to retain global talent, and an enduring dependence upon the construction and tourism sectors) (Leon, 2008); and also regarding the constraints of Catalonia's regional political economy (principally cumbersome business regulations, an overprotection of labor, inefficient collective bargaining, uncertain property rights, and an outmoded pensions system) (Ghemwat and Vives, 2009). Worryingly for the city council, two reports on urban competitiveness and economic performance ranked the city 115th and 193rd in the world (Ni and Kresl, 2010; Brookings Institute, 2011). In more recent months, the response of the council — controlled by the center-right nationalist Convergència i Unió party since 2010 — has been to throw all its weight behind private sector-led recovery, including cutting 55 jobs from the employment and training aspects of its once flagship local development agency, Barcelona Activa (*La Vanguardia*, 2012a; 2012b).

Today, the economic structure of Barcelona remains symptomatic of the general picture for Spain. Through the 1990s and 2000s, Barcelona further shifted towards a service economy (82.9% of economic activity, 69.4% of employment by 2006) — a trend accelerated by the increasing significance of tourism and the related relocation of industrial activity outside the city due to rising land prices (OECD, 2009: 20). The urban redevelopment of the city is now facing a prolonged period of crisis and of the potential devaluation, by various means, of overaccumulated capital. All of this would suggest that Barcelona remains locked into a future dependent upon successful competition within the spatial division of consumption and the capture of monopoly rents. Indeed, the only growth sector in 2011 was tourism, as visitor numbers grew moderately (5.7%) but revenues hit new highs of €11.3 billion (Ajuntament de Barcelona, 2012). And it is telling that, as we write, one of the most hotly debated topics concerning the future strategy for the city concerns its competition with Madrid for the so-called 'EuroVegas' project — a mega-casino and hotel investment proposed by the US-based corporation Las Vegas Sands, and into which will be invested an estimated €17 billion (*The Guardian*, 2012).

14 So convinced was the socialist-led city council of the logic behind 22@ that, in 2009, it announced its expansion beyond Poblenou to cover new knowledge districts in the Llobregat and Vallès areas. Together, these constitute the vertices of the 'Barcelona Economic Triangle' (http://www.barcelonaeconomictriangle.cat). Furthermore, through the forum Pla Estratègic Metropolità de Barcelona, the City Council has promoted the expansion of its KBE strategy to the Metropolitan Area of Barcelona, uniting 36 municipalities that together account for 11% of the population of Spain (70% of Catalonia) and 19% of national GDP.

This is the surest sign that the competitiveness of Barcelona is to remain dependent upon its ability to attract future flows of value from outside Spain in the form of mass tourism revenues.

Conclusion

The preceding analysis suggests that the latest version of the so-called 'Barcelona model' of urban competitiveness has been based upon the reproduction of the capture of urban monopoly rents. Therefore, it would appear that the city's successful competition within the spatial division of consumption remains a central determinant of the urban process in Barcelona. We have shown how, notwithstanding the sincerity of its planners, the extension of rentier practices within the city has been fundamental to a project ostensibly aimed at enhancing the city's competitiveness through its successful insertion into the KBE. Indeed, the capture of rents occurred in such an overtly speculative manner that the 22@ project has been severely compromised after the outbreak of the crisis. Our analysis of the Barcelona case therefore supports the theorization of the treatment of land or property as a pure financial asset that Harvey (1982: 347) claims to be the 'true capitalistic form' of landownership, and with the contradictions that implies. The recent implications of this in contemporary capitalism are neatly summarized by Rutland (2010: 1171): 'To the extent that capital is channeled to commercial property on the basis of its relative attractiveness as a financial asset, market prices, and rents, are liable to increase . . . the development of new properties becomes somewhat delinked from the level of demand from potential occupiers; and the highs and lows of the typical real estate cycle are amplified'.

In more general terms, our analysis suggests that the theory of value remains crucial to our understanding of the urban process in capitalism and the transformation of cities. Time and again, Marxian analyses reveal that there is always fluidity in the relative fortunes of differentiated social forms, like cities, in competition. Improved productivity due to investment in (relatively immobile) physical and social infrastructures in one place must increase surplus-value production and/or capture within a given turnover time or else suffer the threat of devaluation (Harvey, 1982: Chapter 12). Furthermore, the attempt to replicate the competitiveness of a location by a relatively uncompetitive capital or social form will tend to be frustrated by the benefits accruing to the 'first movers', or else will likely be unsuccessful unless a crisis of sufficient magnitude visits devaluation and obsolescence upon once extra-competitive places — a rare occurrence given many such locations enjoy *de facto* monopoly powers. It is, in short, very difficult to upset the balance between winners and losers in the process of uneven geographical development (Smith, 2008: 202), or for cities to enhance their competitiveness on qualitatively new bases. Yet, by necessity, cities must invest in further speculative urban 'improvement' in an incessant and compulsive quest to join or remain among the ranks of the 'winners'.

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