ABSTRACT

Contributing to an emerging debate that brings the mobilization of land rent as a financial asset to the heart of urban analysis, the paper offers a narrative of land financialization as a ‘lived’ process. Focusing empirically on Bicocca (a post-industrial area Northeast of Milan that traditionally hosted the activities of Pirelli, one of Italy’s most successful companies), the paper shifts the focus of enquiry on land financialization from global capital flows and real estate aggregate data to a qualitative analysis of the alliances and struggles between the elites and workers that animated the traditional manufacturing sector. Centring the analysis on these previously neglected actors permits an understanding of land financialization as a ‘lived’ and socially embodied process, and offers a complementary perspective to the discussion on the role of land rent in the making of financialized capitalism. First, it reveals the struggles and alliances between industrial elites, workers’ unions, and local governance as key protagonists in the way land became mobilised as a financial asset, was subsequently embedded in practices of urban renewal, and finally contributed to an epochal change in urban capitalism. Second, it shows how mobilizing industrial land as a financial asset performed not just a *coordinating* but also a *transformative* role in the transition from industrial to financial capitalism as it enabled traditional elites to launch into a financialized phase of transnational competition. Third, it reveals changes in urban governance to be as much responses to the needs of local traditional elites as they are responses to the demands of global financial elites.

Keywords: land financialization, land rent, urban transitions, capital switch, industrial elites, governance, workers’ unions, urban assemblages, Milan, Bicocca, Pirelli.

From manufacturing tyres to producing rent: financializing land as a ‘lived’ process in the transformation of Milan’s Bicocca by Pirelli

INTRODUCTION

David Harvey (2012) has recently argued that the 2008 financial crisis is an urban crisis, offering theoretical contextualization and grounding to proliferating popular references to 'toxic mortgages', 'real estate collapse', and 'mortgage-backed financial derivative products'. Yet, the actual socially-embodied and lived historical geographical mechanisms that animate this allegedly intimate relationship between the dynamics of urban change and the growing dominance of a financialized global economy, the details of how exactly the enrolment of urban land rent into global financialized circuits of capital is socially enacted, is rarely examined. The social embodiment of the process through which the flows of capital "onto and through the land" (Harvey, 1982, 361) transmit "the effects of economic changes on space" (Haila, 1988: 79) under a now fully financialized global economy remains largely unexplored, despite the growing political and economic importance of foregrounding the actors that animate this process.

Indeed, whilst research on financialization focuses mainly on the analysis of global capital flows and macro-economic, data, urban research on the production of rent and the financialization of land assets has focused foremost on either the role of gentrification as structured through the dynamics of the urban rent gap map (Smith 1987; 1996; Hammel 1999; Lees, Slater and Wyly 2008; Weber 2010; Uitermark and Loopmans 2012), or the importance of institutional changes in urban governance regimes that turned declining industrial sites into trendy business centres or residential hubs for the new 'creative' classes (van Gent 2012; Engelen and Musterd 2010; Wyly and Hammel 1999; Kazepov 2005; Baeten, 2008; Merrifield, Desfor and Jørgensen, 2004; Moulaert et al. 2002; Swyngedouw 2005; Vicari Haddock 2009). More recently, the debates on financialization and urban change became more closely knitted when scholars turned their attention to the relationship between financialization and the mortgage sector (Smart and Lee 2003; Aalbers 2008; 2009; 2012; Hall 2011) and the role of financial intermediaries in nurturing urban development projects (Moulaert, et al., 2002; Moulaert and Sekia 2003; Moulaert and Nussbaumer 2005).

However, with a few notable exceptions (Haila 2000; 2008; Rousseau 2009; Moulaert et al 2002; Beauregard and Haila 2008; Wood 2004), the proliferating literature on urban change still falls short from offering detailed historical-geographical accounts of the particular embodied strategies, and the shifts in conflict and alliances between social actors (including those outside the circuits of governance, the real estate and banking sectors, and the creative class) through which the financialization of urban land and its insertion in globalized financial capital circulation unfolds. The article focuses precisely on this understudied dimension of the political economy of urban transformations, and explores how the socially embodied mobilisation of land as a financial asset acted as catalyst for the 'capital-switching' process from the 'real' urban economy of goods and service production to a fully financialized form of global accumulation. Following recent calls to bring into dialogue the previously disconnected debates on financialization and urban development (Rutland 2010; Pike and Pollard 2009) and to challenge finance centred or governance-centred accounts of urban change (Moulaert et al 2002; Warf 1994; Wood 2004; Haila 2000), the analysis here departs from the dominant focus on the 'usual suspects' of land financialization and urban renewal (i.e. developers, governance, the real estate sector, banking), and focuses instead on a set of social actors that have been previously overlooked as significant contributors in shaping the process of land financialization, namely traditional local industrial elites and workers' organizations. The fact that these agents were thus far considered to be of a "more parochial sort" (Molotch 1976:317), we argue, has led to underestimating the significant role that they have played in the transition to new ways of producing urban space and new forms of managing cities.

The article attempts to bring theory home by detailing the changing relationship between an industrial giant (Pirelli) and its land assets (Milan's Bicocca) as the former was struggling to morph into a finance-led conglomerate. Bicocca is an area Northeast of Milan that since the early 20th century has been the main site for the industrial activities of Pirelli, one of Italy's oldest and most emblematic companies (best known for its tyre production and emblematic annual calendars). Bicocca, once a hub of workers' anti-fascist resistance during the Second World War, and a hotbed of militant labour action during the 1960s, was reinvented more recently as the playground of and for Milan's 'creative class'. By following the closely knitted histories of the Pirelli family, Pirelli's workers, and Pirelli's industrial land at Bicocca, we tell a 'lived' story about land financialization, drawing up a narrative that foregrounds the importance of struggles and strategic alliances over the social mobilisation of land between industrial elites, workers' unions and local governance. The historical-geographical narrative structure of the article permits to examine the rather abstract and arcane notion of financialization as a lived process, leading to a number of complementary insights. The case-study of an emblematic space that signals the intricate historical geographical dynamics of the Pirelli-Milan assemblage furthers the debate which foregrounds land financialization as one of the key levers for enacting urban change in three distinct ways.

First, by highlighting the pivotal role of relatively neglected actors in the social mobilisation of land rent as a financial asset, our contribution shows that the renegotiation of historical alliances over industrial land between workers' unions and industrial elites with the mediation of urban governance was a key component of the financialization of urban economies. Second, by detailing how land financialization enabled local traditional elites not only to survive crises but, more importantly, to launch themselves into a new financialized phase of urban capitalism, we show that mobilizing industrial land as a financial asset performed not just a *coordinating* but also a *transformative* role in the transition from industrial to financial capitalism. Third, by documenting changes in urban governance arrangements to be a response not only to the needs of disembodied transnational elites and abstract 'global' forces, but also — and arguably more importantly so — to the needs of locally embedded traditional elites that desperately try to re-image their role and explore new forms of capital accumulation, we affirm that, although real estate may now be embedded in global capital markets as a financial asset (Rutland 2010), its value is still produced at the local level (Wood 2004: 119; Jessop 2001).

The paper is organized in two parts. The first part (City of Industry) offers a short background history of the social relations around Bicocca's production, first as Pirelli's emblematic industrial site and workers' village (in the early twentieth century), and later as a hotbed of anti-fascist action (during World War II), and a hub for radical industrial action (during the 1960s). The second part (City of Finance) examines the process through which Pirelli, faced with the twin pressures of labour unrest and international competition, discovered the importance of its industrial land as a financial asset and claimed it back from its militant workers in order to mobilise it as such during two consecutive periods of crisis (1970s and 1990s). In this part, we explain how the reinvention of Bicocca's land as a *TechnoCity* in the 1980s and as the centrepiece of Milan's re-imagined urbanity in the 1990s, served as speculative ventures that saved Pirelli from bankruptcy, and helped re-launch it as a powerful player in a financialized economy, centred on the land-finance nexus.

The research on which the paper draws was conducted during five extensive field visits (between 2007 and 2012. The fieldwork involved interviews with Pirelli managers, trade union leaders, architects, leading Italian academics, twenty Pirelli workers, twenty residents of the 'new' Bicocca, and twenty students attending the new University of Bicocca. The research findings are also based on extensive archival research at the *Istituto per la Storia dell'Età Contemporanea* (ISEC); *Archivio Storico Industrie Pirelli* in Milan (ASIP); *Archivo Civico* in Milan (ACM); *Biblioteca Sormani; Biblioteca dell'Università Commerciale Luigi Bocconi*; *Biblioteca del Politecnico of Milan;* newspaper archives of *Il Corriere della Sera*, *La Repubblica*, *Il sole 24 ore,* and *L'Unità*. The paper draws upon the work of Vicari Haddock (2009; 2010); Vicari Haddock et al (2005); Cercola (1984); Bolocan Goldstein (2003); and Dell'Agnese, (2005) for basic background information.

1. CITY OF INDUSTRY

1.1 The City of Factories rises: Land as condition of production and contested site of social reproduction.

The industrial history of the city of Milan and the history of Pirelli, the manufacturing company for rubber products and tyres that Giovanni Battista (GB) Pirelli founded back in 1872, go hand in hand. Pirelli today is a multinational giant with diversified production in a wide range of sectors (not in the least in finance and real estate development), which totals net annual global turnover of the order of 4,8 million Euros (2010, Pirelli Annual Report). But the first Pirelli plant for tyres and rubber products operated from a modest building adjacent to Giovanni Battista's family home on *Via Ponte Seveso* in Milan, and employed forty blue-collar workers and five managers (Pirelli, 1946, Colli, 2001). G.B. Pirelli was amongst the first European industrialists to pioneer Talyorist and later Fordist production methods and to promote his products through iconic international advertising campaigns, and soon Pirelli's market grew strong in countries as diverse as Austria, Argentina, Belgium, France, and Great Britain (Colli, 2001; Bolocan, 2003; Dalmasso, 1970). The company's growth went hand in glove with GB Pirelli's increasing involvement in Italy's economic, social, cultural and political life. In 1877, he was elected member of the town council of Milan (1877 -1889), in 1895 he became member of the board of directors of *Il Corriere della Sera,* Italy's oldest and most popular newspaper, and in 1909 he was elected Senator at the *Senato del Regno d'Italia* (Scotto di Luzio, 2001, p. 358; Ciuffetti, 2004; Colli, 2001; Montenegro 1985). Since those early days, the fates of the city of Milan and of Pirelli were weaved together in a tight and mutually supportive relationship.

By 1917, Pirelli's production outgrew the original factory site and the company decided to expand through the acquisition of a 200,000 m^2 site at Bicocca, an area north east of Milan. Soon thereafter, more industries located around Bicocca and the broader area became known as "The City of Factories" (Irace, 1997). In the early 1920s, and in collaboration with the *Istituto Autonomo per le Case Popolari* (IAPLCP), Pirelli embarked on the development of Bicocca into its own workers' village, the *Borgo Pirelli* (Pirelli, 1986; Galdo, 2007). G B Pirelli saw the *Borgo,* (Fig. 1) as his contribution to Italy's endeavour to establish "a better capitalism … the choice of civilisation over socialism, the 'uncivilized' alternative" (Benenati, 1999, p. 49). Bicocca became Pirelli's own signature miniature city (Figure 1) where the principles of scientific management met those of industrial paternalism, and expanded from managing industrial space and workers' bodies and behaviour inside the factory, to managing space and behaviour in 'public spaces' around the factory, and inside the workers' homes, schools, factory shops, hospitals, and recreation grounds (Bigazzi,1996; Einaudi, quoted in Galdo, 2007, p. 11). Bicocca became an opportunity to make a statement not only about welfare provision, but also about production efficiency and a particular enactment of the 'good' life, while nurturing a new work ethic (Benenati, 1999; Bolchini, 1967). By the time fascism was established are a ruling regime, Bicocca had granted Pirelli the status of both innovator and benefactor.

Insert Figure 1 here

Pirelli thrived during World War II, mainly thanks to the eradication of its European competitors (fascism confiscated the plants of *Michelin*, Pirelli's key competitor in France), the 'social tranquility' secured by fascist authoritarianism, and the increasing demand for Pirelli's cable and tyre products for military operations (Bolchini, 1967). As workers' numbers at Bicocca increased, so did class homogeneity, and the spaces that had been created to mitigate labour capital conflict now allowed for a level of social expression that fostered class consciousness and nurtured class solidarity. Gradually, Pirelli's workers claimed Bicocca as a space for expression and congregation, and during the war years the area became a hub for resistance against fascism (Luciani, 1976; Benenati, 1999; Bigazzi, 1996).

After the end of the Second World War, when Piero and Alberto Pirelli fled to Switzerland, compromised by their alleged collaboration with the fascist regime, the workers' union *Comitato di Liberazione Nazionale* played an important role in managing Pirelli's factory (Anelli et al., 1985). When Piero and Alberto Pirelli returned in May 1946, they resumed full ownership and management of the company. Despite losing the monopoly status it had enjoyed during the war, Pirelli quickly recaptured the growth it had achieved during the war years, thanks mainly to state protectionism, indirect subsidies, and the state-assisted expansion of the national tyres market. By the end of the 1950s, Pirelli joined other Italian enterprises in a period that became known as Italy's post war 'economic miracle', the institutionalization of Italy's own brand of Fordism (Ginsborg, 1989).

However, Pirelli's state-assisted economic miracle was short-lived (Bertelè, 1993). Between 1971 and 1975, the company's output fell by 22,000 tons (equivalent to 20% of the company's production total) and its financial liability increased from 268 to 403 billion *lire* (Pirelli SpA, 1976; Bolchini, 1985, p. 71). Leopoldo Pirelli, who succeeded his father Alberto and uncle Piero in 1965, put the blame for the lack of "production recovery" on "widespread conflict", which had "compromised the company's efficiency and ability to function in a normal manner" (Pirelli SpA, 1971, p. 5). Indeed, as authoritarian management practices, lower wages and redundancies had prevailed during the late 1960s and 1970s, Pirelli's workers (now totalling more than 12,000) drew upon the considerable experience they had amassed during the resistance against fascism, and turned Bicocca into a laboratory for radical forms of class struggle (dell'Agnese, 2005; Figure 2). By the end of the 1960s, Bicocca was known as 'Italy's Stalingrad', and had became a constitutive part of Italy's radical *operaismo* movement (Foot 1999; Luciani 1976).

Insert Figure 2 here

But workers' militancy was hardly the only reason behind Pirelli's decline. Moving into the 1970s, the company was faced with increased international competition (*Michelin* re-emerged as Pirelli's main European competitor), and significant hikes in the international price of rubber (Bolchini, 1985). There was urgent need to invest in new technologies, and enter the growing sector of retreads (tyres recycling). In an effort to improve the company's share in the international market Leopoldo Pirelli pursued a merger with the British rubber company *Dunlop* in 1970. The merger would produce the third largest tyre company in the world, with an annual turnover of more than 1,300 billion *lire*, and 180,000 employees (Colli, 2001; Bolchini, 1985; Cercola, 1984). However, the partnership never succeeded in merging the management and production of the two companies, and eventually collapsed in 1981, leaving Pirelli short of options. A radical re-imagination and re-orientation of Pirelli's strategies and activities was in order if it were to survive.

2. CITY OF FINANCE

2.1 The 'Eureka!' moment: the *revanchist* act of 'discovering' land as a financial asset

Strapped for cash and with a financial and technological crisis now added on to the company's labour crisis, Leopoldo Pirelli had little room to manoeuvre after the collapse of the *Dunlop* venture. It was during this moment of crisis that Leopoldo turned, once again, to Bicocca's land in search for a solution. The land that had functioned originally as a condition of production, subsequently as means of mitigating social conflict, and later morphed into a social/political space for Pirelli's workers, would once again become the catalyst for change. In the early eighties, Leopoldo Pirelli launched a programme for redeveloping Bicocca into a *Technocity*. It was a strategy that aimed to eliminate two evils with one strike. First, it would claim Bicocca's land back from militant workers and their autonomist practices. Moving production elsewhere would be an act of *revanchism* that would sever workers from the land that had become not only the hub of their industrial and political activity, but their social and community space as well. Second, the land rent that Pirelli would potentially yield from TechnoCity would raise capital for reinvestment in new technologies (Perulli, 1986). This was the first moment that Pirelli's administration considered mobilizing land as a financial asset. Giovanni Nassi, who played a leading role in planning and delivering Bicocca's transformation, first as CEO of *Brogetto Bicocca* and later as CEO of *Pirelli Real Estate*, recalls with great enthusiasm the '*Eureka!*' moment, when he (and through him, Pirelli) realized that land is not just a condition of production, a dead weight and a cost burden, but could become instead a means of accumulation in itself, a growth engine for a troubled company.

> “Up to that moment, the industrial world in Italy … held this rather stupid logic. Whenever a piece of land with a plant on it was no longer valuable as industrial land, the land would be considered paid off, and they would say: ‘let’s sell the wretched thing right away for quick money’ (*‘vendiamola: pochi, maledetti, e subito’). Dunlop,* by contrast, calculated [their abandoned plants] at market value in their balance sheets, and not at zero value, which is what we used to do at Pirelli. Well, I started to use *Dunlop’s* very interesting logic and decided to create a ‘real estate within’ … which would enable me to make the maximum profit in the long term”
> (Giovanni Nassi, Interview, 22 February 2007).

By shedding its traditional practice of treating industrial land as a condition of production and as an investment that depreciates over time, Pirelli reinvented its land as a “pure financial asset” (Harvey, 1982; 347) that could now be brought into the company’s balance sheets according to the rent it would potentially yield in the real estate market. This imported ‘accounting’ tactic would soon be turned into the centerpiece of a radically new corporate strategy that would redefine Pirelli’s relationship to both space and local governance in decisive ways.

The opening salvo was fired in 1987, when Pirelli established a ‘daughter company’, *Progetto Bicocca S.p.A.,* In 1991. The ownership and management of Bicocca’s land was transferred internally to *Brogetto Bicocca* for a price of 159 billion lire. The sale figure was made up of two parts (see Table 1): first, the value of industrial ‘Land and Buildings’ that would be retained as production sites, estimated at 46,4 billion lire; and second, the value of ‘Fixed Tangible Assets’ (i.e. land and buildings that would be developed as part of the *TechnoCity* project), estimated at 113,5 billion lire (*Bilancio Progetto Bicoccca* SpA, 31 December 1991, ASIP). The value of ‘Fixed Tangible Assets’ was calculated purely on speculative grounds, based on the potential land rent each plot could yield on the basis of: “the permissible land use and Gross Floor Areas specified for this plot in the Master Plan” (*Verbale della Visita Sindacale’* 30 January 1992, *Fondo Progetto Bicocca, ASIP*, no page number). Pirelli literally turned the rent gap, which was itself co-constituted by planning and related regulations, into ‘real’ prices, thereby significantly enhancing the balance sheets of the company.

Insert Table 1 here

Table 1 shows how, until 1987, Pirelli treats industrial land and buildings in its balance sheets the same way as industrial equipment (i.e. its value depreciates every year, until it is eventually considered to be 'paid off'). Within that logic, all land and buildings owned by Pirelli SpA in Italy (including Bicocca, and other sites in Milan) in 1987 was valued at 67,3 billion lire. By 1991, however, when Bicocca's land is brought into the accounts as a financial asset, its value jumps on speculative grounds, i.e. on the basis of its potential future real estate yields. In 1991, the value of Bicocca's land *alone* appears in the balance sheets (under *Brogetto Bicocca S.p.A*'s ownership) at the staggering value of 159 billion lire. This figure is 2.36 times higher than the value at which the same land plus all other Pirelli's land holdings were calculated four years earlier! So, from 1991 onwards, the speculative value of Bicocca's land came into Pirelli's balance sheets as a new financial asset that helped shore up the company's accounts and thereby, its potential financial leverage.

Revolutionizing the way it perceived and 'accounted' for its real estate assets marked the beginning of Pirelli's "journey of perpetual search for enhanced future ground rents" (Harvey 1982: 368). The historical moment was also opportune, since Milan was morphing into an international finance and service centre, and Bicocca had become integrated, both physically and cognitively, into this landscape (Bolchini 1967, pp. 23-24). The fact that Milan's economy was becoming increasingly internationalized, meant that land rent in and around Milan could now potentially be determined no longer at the local, but at the regional, national or indeed international level (Haila 1988). This way, the internationalization of Milan's economy acted as what Haila (1988: 92) terms a "stimulus condition" that prompted landowners, including manufacturing-based corporations, to treat their land as a pure financial asset. The trajectory of the *TechnoCity* project shows precisely how the mobilization of land as a financial asset unfolded. And this is what we shall turn to now.

2.2 Land financialization as a local affair: Bicocca's *TechnoCity* as a three-partite negotiation between industrial elites, workers' unions and local authorities.

In pursuit of Leopoldo's vision for a *TechnoCity*, Pirelli drafted a comprehensive planning proposal, which promised to provide "guarantees for sustaining Milan's industrial competitiveness" by "stimulating and diffusing new trends in technology and production. […] and matching job needs" (Regione Lombardia, 1985, p. 1). The building program included research centers, universities, businesses, as well as Pirelli's own Research and Development laboratories (Regione Lomabardia, 1985, p. 3; Bolocan, 2003; Nepoti, 2003). In negotiating the proposed plan with the local authorities, Pirelli had two distinct advantages. First, it was the first company in Italy to come up with a comprehensive industrial redevelopment proposal, albeit increasingly geared at real estate development projects. Second, its imaginary for a *TechnoCity* resonated with the local authorities' vision to reinvent Milan as an international high-tech and services hub in order to mitigate the consequences of deindustrialization. Unsurprisingly, therefore, the local authorities greeted Pirelli's proposal with great enthusiasm:

> "[the plan] represents the first step towards a collaboration between public agencies and the private sector on renovation, job matching, and territorial restructuring" (Regione Lombardia, 1985, p. 1-2).

Equally unsurprisingly, however, Pirelli's and the region's enthusiasm for a post-industrial future for Milan was not shared by the company's workers. Pirelli's trade unions were not convinced that relocating industrial production and 'freeing' up (or rather emptying out) Bicocca's land for the *TechnoCity* development would be performed in both the city's and the workers' best interest. The production of Bicocca as a financial asset therefore became a highly contested process. Emptying the space from the militant workers and residents who had appropriated it as 'their' space was, of course, vital for the success of the scheme. It took Pirelli four years (1981-1985) of intense negotiations with workers' unions, in which the local authorities (Local City Council, Provincial Council and Regional Authorities) played a key mediating role, eventually to convince trade unions to sign the *Schema di protocollo di intesa*. This three party agreement between local authorities, trade unions and Pirelli's management set the terms and conditions for the relocation of production away from Bicocca. The *Protocollo* guaranteed employment for between 1,500 and 1,700 of the original 2,000 Bicocca workers. It also stipulated that cable production would remain at Bicocca, and that any new tyre plant had to be located within a radius of 25 km from Bicocca (Regione Lombardia, 1985, pp. 2-3). Around the same time that Pirelli was negotiating relocation, the Italian government issued an incentives package for new investment or relocation to the Mezzogiorno (*Piano della Cassa per il Mezzogiorno* 17 November 1984, n. 775; *Agenzia per la promozione dello sviluppo del Mezzogiorno*, 1 March 1986, n. 64). There could not have been better timing for Pirelli. Taking advantage of the incentives, Pirelli relocated the production of diversified products to the South of Italy (Perulli 1986).

Following the *Protocollo,* Pirelli did keep some of the original production lines at Bicocca. Nevertheless the redevelopment of the land dealt a decisive blow to both the imaginary and the practice of Bicocca as the workers' social and political space (Murray 1983). The invention of a new imaginary for, and use of, Bicocca's land became the catalyst for local capital to recapture its position of power. A new relationship between capital and land emerged. Land was no longer a condition of production, or a means to mitigate capital/labour conflict; instead, it had to be produced as an asset, and realize its full accumulation potential.

2.3 *Flexible planning: strategic alliances and land financialization.*

The transformation of Bicocca's industrial land into a financial asset did not only demand the expulsion of local workers/residents and the collaboration of local authorities. It also necessitated revising the traditional terms of the relationship between local authorities and local capital. This mutually beneficial relationship that had been firmly established under industrial paternalism, thrived under fascism, and was sustained during the Fordist decades following the end of World War II, was now re-engineered in order to launch Milan's elites and the Milanese economy into a globalized market.

As they had done in the past, Milan's local and regional authorities offered special terms and conditions to assist Pirelli's new enterprise. Pirelli needed "a flexible set of rules and regulations, because [they] had a long period of deliberations ahead" (G. Nassi, interview 22 February 2007). And the local authorities duly obliged. In 1988, in recognition of the importance of *Progetto Bicocca* as a pilot scheme for Milan's urban future, the City and Regional Councils of Milan approved the modification of the General Plan without much opposition (*Delibera*, 1258, 20 July 1987, *Archivio Civico Milano).* The Modified Plan fixed only reference points for Permissible

Gross Floor Areas (PGFA) per land use (see Table 2), but otherwise granted Pirelli limitless flexibility to revise land use and increase (for residential use, and services) or decrease (for office use) PGFAs at will in the future. Pirelli could also flexibly assign PGFAs to University, Research and Business functions (*Unità Tecnica di Pianificazione Regionale* - UTPR, 1988, p. 3). This was the first 'flexible modification' of a general Master Plan to be authorized in Italy, and it became a decisive element for the project's financial success. Through the flexible plan the local political elites granted Pirelli considerable powers to maximize potential rents gaps and thereby open up a process that permitted accelerated financialization of land assets.

Insert Table 2 here

The way local government arrangements facilitated Pirelli's project was consistent with the favourable manner with which Pirelli and other local industrial elites had been treated historically. The flexible planning arrangements present a case in point of what Molotch (1976: 313) termed "the 'essence' of local government as a dynamic political force." With one important difference: in this particular case, it was not the local government, but Pirelli that took the initiative to act as the city's international 'ambassador' and to communicate to potential international investors the advantages of investing in Milan. The role that Pirelli (together with other traditional local elites) played as the city's 'ambassador' highlights the important — yet often neglected — role that traditional, place-loyal elites of the 'parochial sort' (Molotch 1976) have played in the transition of local economies. It was the loyalty of local governance coalitions to these place-loyal traditional elites, and not only to some abstract global capital flows that incentivized them to modify plans, and put in place the governance arrangements that would assist the transformation of the company. De facto, Pirelli was in a position to designate and develop land according to its own interest while taking a central role in global place-marketing and nurturing the site as Milan's new hotbed for investment.

Although redeveloping Bicocca was an enterprise that aimed to capture revenues from an emerging global real estate market and the rapid financialization of land-based development, the production of Bicocca *Technocity*, and the success or failure of the project owed at least as much to the specificities of the local labour-capital, capital-governance and labour-governance relations, as it did to global capital flows (Wood, 2004). The locally produced land rents would be enrolled in circuits of global financial capital and assist struggling traditional elites to launch themselves as transnational players in a globalized finance-based economy. Subsequently, these locally produced rents would became embedded in global capital markets as financial asset and would attract the now well-documented new waves of transnational capital and transnational elites to old industrial centres, thereby producing radically new forms of urbanity.

Pirelli’s publicity campaign for Bicocca *TechnoCity* implicitly explored this dialectic between local and global in the necessity for capital to renew its terms of engagement with its local alliances in order to compete globally. The campaign was Janus-faced, promoting the image of Pirelli as a place-bound, place-loyal company at the local level, and as a footloose global player at the international level. When addressing a Milanese elite audience, Leopoldo Pirelli would emphasize his commitment to ‘do good’ for the city and its people, and compare his ‘contribution’ of a *TechnoCity* to Milan to “his father’s contribution of the Pirelli skyscraper to the same city” (Pirelli 1984, p. 5). By contrast, when addressing an international audience, the image of Pirelli as a place-loyal elite would morph into that of an aggressive global player embarking on a new path of strategic capital investment. Markedly, Pirelli made international headlines when they invited twenty world renowned architects (including Frank O. Gehry, Renzo Piano, Vittorio Gregotti and Richard Maier) to a design competition for Bicocca *TechnoCity* (Pirelli, 1986, p. 13). A high profile international publicity campaign accompanied the competition, and a public exhibition of the designs travelled from Milan’s *Triennale,* to Leningrad, London’s Barbican, Brussels’ Royal Museum of Fine Arts, New Jersey’s Institute of Technology, and Barcelona’s Urban Centre (Pirelli, 1986; Manca, 2005).

2.4 *Revanchism* and the end of place-loyal capitalism: finding land’s proper role as pure financial asset and redefining the relationship between capital and the city.

At the time when Pirelli was masterminding the *TechnoCity* project, the tyre sector had become a restricted global oligopoly, with 80% of global production shared amongst only six companies. Pirelli featured in the fifth place, but lagged considerably behind the leaders — Michelin, Goodyear and Bridgestone – with a market share of just 7.5 % (Sicca and Izzo, 1995; Anelli et al 1985). In spite of the failure of the earlier experiment with *Dunlop*, Leopoldo Pirelli insisted that a strategy of mergers and acquisitions was still the best way forward, if the company wanted to enjoy the same "economies of scale enjoyed by its major international competitors" (Zanetti 2003, p. 15). In the early 1990s, Leopoldo Pirelli pursued the acquisition of 50% of the shares of his German competitor, *Continental* (Nepoti, 2003; *Il Corriere della Sera* 19 January 1992). The acquisition was successful and was expected to "create a company with a global market share equal to 16% and an annual turnover of 10,000 billion *lire* [approx 5 billion EUROS]" (Pirelli SpA, 1991, p.6). However, the acquisition of *Continental* triggered the deepest financial and managerial crisis in the company's history. A clause in *Continental's* statutes, which had been overlooked by Pirelli's advisors, offered each *Continental* shareholder voting rights of up to 5%, regardless of the number of shares they held in the company. This meant that, despite acquiring 50% of the company's shares, Pirelli could not take control of *Continental*'s operations (Sicca and Izzo, 1995).

The *Conti affair* (as it became known) turned into a financial disaster. By December 1991, Pirelli SpA reported a total deficit of 670 billion *lire*, 350 billion of which was related to compensations and depreciation connected with the failed Continental operation (Pirelli SpA Report, 1991-1992; Sicca and Izzo, 1995, p. 119). Pirelli was placed under the guardianship of *Mediobanca,* a major Italian investment bank, which imposed radical changes in the operations, management and structure of Pirelli, ranging "from the redefinition of core businesses and activities, to rethinking the company's identity" (Zanetti 2003, p. 32; Sicca and Izzo, 1995, p. 88). The restructuring also involved the separation between ownership and management. Although Leopoldo Pirelli was keen to maintain his position as the company's manager, he was 'strongly advised' by Enrico Cuccia, director of Mediobanca, to step down and offer his position as CEO to Marco Tronchetti Provera (*Il Corriere della Sera*, 16 February 1992). Tronchetti Provera had been a partner to Pirelli for many years, and was Leopoldo's former son-in-law. The new management's strategic vision was quite different to Leopoldo's. It included shelving the pursuit of a quantitative leap in the tyre sector, concentrating production in fewer and smaller units, reducing drastically the workforce and selling 'non profitable' activities' (Bertelè, 1993, p. 65; see also *La Repubblica* 24 November 2008; Fumagalli and Mocera, 2007; Zanetti, 2003). This was the 1990s, and, at the hype of brand creation, *Morgan Stanley* suggested a shift of focus on building a 'New Pirelli' brand, rather than improving production output and sales (Bertelè, 1993, p. 66). The reductions in workforce and the sale of key production lines were welcomed by global financial markets, and had immediate effects on the group's balance sheets. Although still making significant losses (154 billion *lire*), the company's net operating results increased by 100 billion in one year (*Il sole 24 ore*, 24 September 1994).

But, in fact, it was neither redundancies nor the sale of key production lines that saved Pirelli from bankruptcy. It was what was delivered by its daughter company, *Progetto Bicocca*, through the completion of the first *TechnoCity* land redevelopment project, that saved the day, further entrenching the 'capital switching' from industrial production to the production of land rent and its financialization. This first *TechnoCity* project consisted of seven office buildings on a site of 75,000 square meters and was completed with no particular attention to architectural detail, but "with an eye towards yielding a quick capital fix" (Nassi, *Progetto Bicocca* CEO, Interview, 22 February 2007). However, the economic return that this 'ugly' project yielded was so impressive that it prompted Pirelli's new management to have a closer look at further potential in using land as a financial asset, and as a means of reviving the company. Therefore, although the Bicocca *TechnoCity* project started out as a strategy to overcome problems with outdated infrastructure and militant labour (Bolocan, 2003), the unexpectedly significant financial returns of the first redevelopment phase led to the realization that, if properly managed, the plant closures could prove instrumental for launching Pirelli into a new era of speculative capitalism.

> "The [company's new management] was eager. They said: 'bring us more ideas to redevelop the remaining 680,000 m^2 of the land' " (G. Nassi, *Progetto Bicocca* CEO, interview 22 February 2007).

To realize the full potential of Bicocca's land, Pirelli's new management regrouped Pirelli's real estate activities (Including *Progetto Bicocca)* in 1992 under a new company, *Milano Centrale Immobiliare* – MCI (Memo, 2007; see Figure 3). In 1993, the sale of 74% of *Progetto Bicocca* 's shares yielded over 190 billion *lire* on a purely speculative basis (Sicca and Izzo, 1995). By holding on to the remaining 26% of the shares, MCI controlled the management of the Bicocca project and maintained an "exclusive and mandatory role as the planning, administrative and commercial coordinator of the project" (Pirelli SpA, 1993, p. 6; see Figure 3 and Table 1).

Insert Figure 3 here

In November 1992, *MCI* became the exclusive Italian representative of *Knight Frank* and *Ruteley*, two major global real estate companies (*Corriere della Sera*, 18 November 1992). On June 3rd 1993, it was floated on the stock market, yielding another 110 billion lire for Pirelli & Co., which was subsequently used to finance further development projects at Bicocca (*La Repubblica*, 4 June 1993). This time, however, the redevelopment of Bicocca was not even linked to any broader, long-term strategy of reinvestment in industrial innovation. By now, the venture had turned into a self-propelling real estate carousel in its own right, an opportunity for diversifying the company's activities (Nepoti, 2003) whereby capital and land were tightly knit together in intricate and mutually re-enforcing speculative circulation processes. Within this new logic, the project to develop Bicocca as a *TechnoCity* with all the social investment it entailed was deemed "too demanding in technical expertise and economic resources" (i.e. too costly) and was abandoned in 1993 in favour of a new plan for redeveloping Bicocca as a 'Historical Centre in the Suburbs'. Hence, Bicocca's land was reinvented as a luxury residential area, with cultural and entertainment facilities and limited office functions. The fantasy of the *TechnoCity* that still included an imaginary articulated around innovation, new forms manufacturing and creative high-technology production was abandoned and replaced by imaginary of a 'new urbanity', centred on speculative real estate ventures and the production of rent. Vittorio Gregotti, the chief architect of both 'Bicocca Technocity' and 'Bicocca Historical Centre' recalls:

> "The programme moved away from the TechnoCity, and towards something resembling urban design; it included a theatre, a university, and apartments, and I redefined it with a slogan as 'a historical centre in the periphery'; a place where historical social and physical characteristics blend seamlessly with high culture functions, inviting an analogy with the centre of a city" (V. Gregotti, interview, 14 November 2007).

Once again, Bicocca's new mutation as Milan's emblematic urban project could not have happened without the collaboration of Milan's local authorities. Despite the fact that the new plan was distinctly different in scope and aims to the *TechnoCity* project, the favourable and 'flexible' planning regulations that were essential to maximize potential rent production were kept in place. Moreover, when the State University of Milan was authorised to create an 'off-spring' university campus for 35,000-40,000 students, Pirelli jumped at the opportunity and proposed Bicocca's land as an ideal site. At the same time, new national legislation decreed that at least 25% of the funds required for real estate development related to University functions should be provided by national insurance and social security institutions (*Legge 498/92*), thereby enrolling public funds into the real estate-finance capital nexus. The City Council of Milan, loyal to their special relationship with local industrial (transforming gradually into financial) elites, did not issue a public bid, but instead chose Bicocca directly as the site for the new University.

All this facilitated morphing the old Bicocca plan and *Technocity* project into the new large urban project. In 1994, the University of Milan acquired around 40% of Bicocca's land and buildings and established the *Milano Bicocca* University, which became a flagship project for the area. The subsequent location of another emblematic project, the Arcimboldi theatre (a lyrical theatre with 2,400 seats), added further kudos and connectivity to Bicocca, and increased the speculative value of the subsequent residential and office developments. Soon after its inauguration, the Archimboldi theatre was chosen for the relocation of Milan's main opera productions in 2002, when the *Teatro alla Scala* (popularly known as *'La Scala'),* Milan's most prestigious opera house, closed for renovation. The relocation of the opera productions 'forced' the Milanese bourgeoisie to visit Bicocca and witness the transformation of an area that was up to that moment linked in their cognitive maps to industrial activity, left activism, and working-class residences only. Tronchetti Provera, CEO of Pirelli, was member of the board of directors of the *Teatro alla Scala* at the time.

The two flagship projects functioned as a successful image-making anchor that signaled the epochal transformation of Bicocca to a radical new form of urbanity. Pirelli's real estate activities soon yielded such high profit margins that Pirelli decided to turn real estate into core business. Through important acquisitions (Unim) and further exclusive agreements (Morgan Stanley Real Estate Funds), *MCI* became one of the most important Italian real estate companies during the second half of the 1990s, and was renamed *Pirelli RE* (Pirelli Real Estate). Bicocca became *Pirelli RE's* showcase at the 1996 international real estate companies' meeting at Cannes. During the same period, *Pirelli RE* commissioned Vittorio Gregotti to design an iconic building for its headquarters at Bicocca. The spectacular design engulfs Bicocca's old industrial cooling tower inside a new oversized glass cylinder (Memo 2007). Pirelli RE was making a statement. The building that dressed dead industrial capital with a glittering new glass structure became an eloquent signifier of the strategic role that real estate played in the Cinderella-like transformation of Pirelli from a manufacturing company to a real estate and financial giant, and the irrevocable transformation of Bicocca from 'City of Workers' to 'City of Finance', a speculative, rent driven urban development venture (Figure 4). In the architect's own words:

> "The old cooling tower within the [new glass] building … became symbolic of the shift from industrial production to the service sector. There, both Pirelli's past and present coexisted harmoniously" (V. Gregotti, interview, 14 November 2007).

Insert Figure 4 here

The reinvention of Bicocca did not simply request a reaffirmation of the special relationship between Pirelli and the government of Milan. It once again demanded the transformation of the terms of this relationship. Leopoldo Pirelli's *TechnoCity* project had been one of the last projects that claimed to "combine ethical principles with the logics of profit and industrial efficiency" (Leopoldo Pirelli, Interview, *La Repubblica* 27 October 1999, p. 39). Abandoning that project in favour of a speculative urban project marked the end of a long era when each new venture from the part of place-loyal elites would be accompanied by a promise for delivering a matching social project that assumed a certain ethical responsibility for the city and its citizens.

Bicocca's new development announced a more cynical phase of capitalism, which instituted a new *rapport* between capital and local governance. In this particular case, the local government acted *de facto* as facilitator to Pirelli's strategies by creating and maintaining flexible planning rules, and facilitating the location of central functions at Bicocca, all of which enhanced the value of Pirelli's real estate ventures. These 'facilitating' acts were in line with the long-standing history of the reciprocal relationship between capital and local government. The difference was that, this time, the government's enabling strategies were performed with no guarantees for returns in welfare or other provision from the part of the company; only with the vague expectation that some of the benefits of good corporate performance would somehow trickle down to the local community.

> "Whilst the public sector was pushed to create an attractive pole, Pirelli just ripped the benefits of the valorization of land at Bicocca" (Vicari Haddock, Interview, 15 November 2007).

The switch from family-owned to corporate capital also changed irrevocably the terms of engagement between capital and the city. Walking the streets to and from Bicocca, the monumentality of Gregotti's new 'neutral' architecture is set in stark contrast with the remnants of the more humble and history-rich architecture of the workers' village. As Bicocca becomes reinvented as a middle class suburb (Vicari Haddock et al 2005), its new monumental architecture eradicates historical memory and produces a decaffeinated urbanity; an urbanity 'freed' from the rich history of struggles, alliances and conflicts that had originally produced this space. But the eradication of historical memory from Bicocca should come as no surprise. Like with most post-industrial redevelopment projects across the western world, as Lehrer (2006) argues, it became key to the project's economic success (Smoltczyk 2001: 60-61, cited in Lehrer 2006: 336) as the a-historical 'neutral' and 'adaptable' character of Bicocca's new plans was a perfect match for Pirelli's shifting strategies.

CONCLUSION

The analysis of the historical-geographical transformation of Bicocca contributes to an emerging debate that insists on the need to widen the discussion on land rent and bring the mobilisation of land as a financial asset to the heart of urban analysis. This debate has, thus far, been limited to the analysis of the socio-economic dynamics of gentrification and, more recently, of mortgage markets, or has been marginalised altogether in favour of discussions around 'urban cultures', 'good' urban governance, 'creative cities', or the effects of 'neoliberalism' on global economic change. The article showed how, in the case study, the formation of a thoroughly financialized economy was, among others, produced through the profound restructuring of corporate capital and the development of a new accumulation strategy articulated around the mobilisation of land as a fictitious asset. Furthermore, we showed how the reciprocal transformation of corporate and urban governance frameworks is choreographed through particular local struggles that fuse together corporate tactics, urban governance and changing capital-labour relations.

The historical geography of the production and transformations of Bicocca's land demonstrated how during each period of crisis or change for industrial capitalism, channelling the flow of capital "onto and through land" (Harvey 1982: 361) was a recurrent tactic to overcome crisis and nurture new accumulation strategies. In the early 20th century the redevelopment of Bicocca as a workers' village became the means to mitigate labour/capital conflict and to introduce 'scientific management' practices. During the 1950s and 1960s, the same qualities that had once made Bicocca the showcase of Italian industrial paternalism facilitated the evolution of Bicocca's land into a hub of radical trade unionism. During the industrial downturn of the 1970s, Pirelli reinvented Bicocca's land as a *TechnoCity* (1980s) and turned it into the lever both for reclaiming the site from Pirelli's militant workers and for saving the company from the decline that many family-owned Italian industries faced during that period. During the 1990s, after disastrous attempts to recover its global share in the tyres sector through acquisitions and mergers, Pirelli turned once again to Bicocca's land and 'discovered' the role it could play as pure financial asset if redeveloped as a 'historical suburb'. Bicocca was thus mobilised as a speculative real-estate enterprise that rescued the company from bankruptcy. Notably, however, Bicocca's recent transformation as an emblematic urban project also served as the lever for morphing Pirelli from a traditional, place-loyal, family owned tyres manufacturing company into a transnational holding company and a global player in finance capitalism and real estate. While Pirelli's attempt to internationalize through corporate industrial strategies largely failed, the financialization of its landed assets during the 1990s achieved the company's global repositioning, confirming Harvey's assertion that, at the end of the day, for capitalism, "only the kind of land ownership that treats the land as pure financial asset will do" (Harvey 1982, p. 361).

The 'lived' dimension of land financialization that was exemplified here through the side-by-side reading of the histories of a company, its workers, and its land, and their relations to local government institutions, offers, we believe, a new dimension, and a new challenge, to our critical understanding of local urban regeneration practices and their role in remodelling the architecture of global economies. We maintain that the stories of recent regeneration practices in cities across the Western World, from London to Bilbao and from Manchester to Copenhagen, can — and should — be retold by bringing into focus this 'lived' dimension of land financialization and by shedding light on the often neglected, yet prime, role that traditional industrial elites, workers' movements and their struggles and alliances over land have played in turning industrial land into a financial asset, and enabling (or not, as the case may be) local industrial capital to launch itself onto a new phase of global finance capitalism. Highlighting these social processes, which ultimately shaped in important ways the architecture of a now financialized global economy, asserts the vital importance of the mobilisation of land as a financial asset in urban redevelopment practices, and, perhaps most importantly, its importance in choreographing the urban and geographical production of the global financial configuration and its associated crises dynamics. Indeed, financialization is, as Harvey's opening quote suggests, a profoundly urban process.

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