The Financialisation of Housing by Numbers: Brazilian Real Estate Developers since the Lulist Era

Lucia Shimbo
Instituto de Arquitetura e Urbanismo, Universidade de São Paulo, São Carlos/SP, Brazil
luciashimbo@usp.br
ORCID: https://orcid.org/0000-0002-1097-8091

Fabrice Bardet
ENTPE, Université de Lyon, France
bardet@entpe.fr
ORCID: https://orcid.org/0000-0002-1530-3579

José Baravelli
Faculdade de Arquitetura e Urbanismo, Universidade de São Paulo, São Paulo/SP, Brazil
jbaravelli@usp.br
ORCID: https://orcid.org/ 0000-0002-6988-5164

Status
Author's final version, published in Housing Studies.
Lucia Shimbo, Fabrice Bardet & José Baravelli (2022) The financialisation of housing by numbers: Brazilian real estate developers since the Lulist era, Housing Studies, DOI: 10.1080/02673037.2022.2033175

This article examines the emergence of large-scale real estate developers in the *Minha Casa, Minha Vida* [My House, My Life] housing programme launched in 2009 by the Lula government and their repositioning caused by the economic crisis that hit the country five years later. Their development, based on a systematic use of financial valuations in their governance, strongly connected with international investor requirements, enables us to defend an extended notion of financialisation of housing policies, characterised by the colonisation of managers' activities by financial metrics. The question of trust in financial numbers is essential when splitting the sector into two groups that occurred with the crisis: some developers worked even closer to investors, while others substantiated public economic power, balancing investors' demands. The argument is that the entanglements between the circulation of financialised valuations in professional activities of private agents gradually transformed the structure of housing provision itself.

Keywords: financialisation; housing; real estate developers; global South.

Introduction

In the wake of the aggressive expansion of finance in the housing sector in emerging markets of the Global South (Rolnik, 2019), the private actors, such as large developers and builders, responded very well to a housing programme based on credit for working classes to buy their own homes, within a large-scale production, in Brazil. The *Minha Casa, Minha Vida* (MCMV) [My House, My Life], launched by the Lula government in 2009 that survived until 2020, was the platform that brought together public and private elites around a vision of a tangible and desirable future based on the projection of financial revenue.

In his speech at the launch, Lula stressed that the programme had found a common denominator among the various stakeholders, and that it was necessary to spawn public money[1]. The 2008 global financial crisis threatened the high level of real estate production reached until then in the country. The programme aimed to further stimulate real estate and infrastructure production and attract international financial capital. Among the private agents, the real estate developers were capitalised, given their recent publicly listed firm, and needed to respond to their new shareholders and the financial valuation they had set (Sanfelici & Halbert, 2016).

The first observation that this article proposes to make is that the Lulist strategy managed to align the public sector managers, the country's economic elite, and the international investors of this programme in which a considerable volume of public

---

[1] Available at http://www.biblioteca.presidencia.gov.br/presidencia/ex-presidentes/luiz-inacio-lula-da-silva/discursos/2o-mandato/2009/25-03-2009-discurso-do-presidente-da-republica-luiz-inacio-lula-da-silva-durante-lancamento-do-plano-habitacional (acessed 10 October 2020).

money was committed. International capital came in abundance to accompany this providential operation in the international scenario of the crisis-stricken northern hemisphere. At the heart of this alignment of interests are the financial calculations of the profitability of investments. They constituted the numbers around which mutual trust had to be built. This is the angle taken in this article to describe how these numbers have enabled trust and commitment to action.

This perspective, which places at the centre of the analysis the financial tools of promised profitability for investments, has its source in a school of sociology of financialisation that developed from the 2000s onwards (Van der Zwan, 2014). One of the contentions of this school is that the colonisation by calculative logics and financial valuation tools (summarised in the notion of "financialised valuation") appears at the centre of a global transformation of social practices, reaching private and public organisations, as well as public policies (Chiapello, 2018).

This paper aims to apply this analytical matrix to the production of urban space, attempting to escape the limits of studies that treat financialisation only as an abstract domain of finance in the dynamics of accumulation of capital. Although capital circulation is at the origin of most of the physical changes in the built environment, this movement is facilitated and carried out by professional practices determined locally and historically (Weber, 2015), as well as by the State and local governments (Adisson, 2018; Halbert & Attuyer, 2016).

The materiality of the most ethereal forms of capital has caused recent mutations in social relations and these mutations are inscribed in and "produce space, making the geography of contemporary capitalism far more complex than suggested by conventional binaries, such as the Global North and global South or centre and periphery" (Mezzadra & Neilson, 2019:6). Although variegated and localised in its nature, it is possible to identify patterns in the financialisation of housing among "countries located at the peripheries of the world economy", rejecting once again binary thinking (Aalbers *et al.,* 2020:481).

The prospect of colonisation by financialised valuation offers a prism of analysis that also disrupts these binaries assumptions as the same financial tools circulate easily in real estate firms in quite similar ways, in very different countries to each other, such as France or Brazil. This circulation, which we analyse in this article, is certainly one of the reasons why the acronym FIRE (Finance, Insurance and Real Estate) has been developed in other countries to identify a compact and coherent sector of activity.

The argument developed here is that financial valuations have been tools of political mediation between public and private, national and international elites, allowing the initiation of a discussion and the establishment of reciprocal trust. This hypothesis is formulated following the early works of sociology of quantification which were at the origin of the school of sociology of financialisation, adopted in this paper. Among them, the work of historian Ted Porter has rightly placed the issue of trust at the centre of reflection and underlined the role of quantifications in modern and contemporary societies (Porter, 1995). This convergence of agents is demonstrated through the description of the industrial and managerial strategies adopted by the large Brazilian construction and real estate development groups, at the time the MCMV programme was launched, but also a few years later, when the crisis finally hit the country, aggravated by the controversial impeachment of President Dilma and economic recession, and the initial agreement is called into question.

This article shows how, in these two historical contexts, the financial estimation of future revenues of real estate investments once again constitutes the political mediation between the political, economic, and financial elites. The first period before the crisis is the occasion for the primary diffusion of these tools in the housing production structure. The second covers the division of the construction and development sector into two groups, each of them arbitrating on the place to be given to these tools.

The first group brings together companies that, in the crisis, refocus their activities on their core business, aimed at the large-scale standardised production of houses in the low-income market, and reinforce their participation in the MCMV and national partners. Conversely, the second group is made up of companies that decide to maintain the strategies adopted by financial investors to circumvent the crisis. They return to their original niches, medium and high-end housing, and restructure their organisations to maximise their responsiveness to the expectations expressed by investors. In the latter case, even the work at the construction site was measured by financialised valuations.

In the Brazilian case, as we argue here, the circulation of financialised valuation into professional activities has allowed the restructuring of real estate developers, thus reinforcing the transformation of the structure of housing provision.

Based on qualitative research, the paper explores the circulation of financial instruments in the debate on housing financialisation and focuses on the context of the MCMV programme in Brazil, in its first part. Next, the research development process is described, based on sociological interviews in publicly held developers and construction companies. The third and fourth parts of the paper discuss the main findings related to the professional practices of developers. In the final considerations, the contributions of the Brazilian case to the debate on housing financialisation are outlined.

Contribution to the debate on Housing Financialisation

Housing policy is one of the sectors in which work on the sociology of financialisation is developing. In the perspective of the reviews already proposed (Aalbers, 2017; Halbert & Attuyer, 2016), it is important to bear in mind the massive investment made in recent years by the financial industry in the land and property sectors. Two major series of works have been carried out in these directions: on the extension of real estate mortgage mechanisms (Aalbers, 2012) and on the strategies of international financial investors to directly exploit land rent and industrial profits, either by entering into the capital of large construction companies (Romainville, 2017; Shimbo, 2019), or by creating real estate-financial funds that act as real operators in the world's major metropolises (David & Halbert, 2014; Guironnet *et al.*, 2016; Sanfelici & Halbert, 2019).

This pioneering work warned of the risks that these processes of urban financialisation posed to the democratic breathing of societies: confiscation of the programmatic capacities of governments by financial circles, limitation of the formulation of alternative political programmes and standardisation of the modes of production of space out of step with the expectations of populations and to the benefit of wealthy and internationalised social minorities (Halbert & Attuyer, 2016).

In the debate on housing financialisation, two features are relevant in this process: the increased importance of "private profit-making strategies" within traditional social housing structures and the "short-termism" of housing programmes (Smyth, 2019). In terms of public policy, in the wake of the "new contractualism" in welfare services in the UK during the 1990s and 2000s for example, the warning given is that in these processes the fundamental policy issues related to the allocation of public funding have become a problem of financial experts (Raco, 2013).

In the “countries located at the peripheries of the world economy” (Aalbers *et al.*, 2020: 481), this risk is even more dangerous considering that there were not even welfare programmes in the political trajectory of these countries, but there were many regulatory instruments that established real estate and housing as another important source to obtain financial gains. The prioritisation of private profit-making in housing production, without paying attention to adequately attending to the housing needs of the poorest population, reinforced the social and territorial inequalities in Latin American cities (Rolnik, 2019). This “repositioning of housing policies within a business model” also contributed to reinforcing the historical uncoordination of local housing policies in metropolitan areas of Latin America (Neto & Arreortua, 2020, p. 1634).

The MCMV

In Brazil, the trends of urban financialisation were revealed in the new financing mechanisms in the real estate sector and in public credits for housing production, in large urban projects and in the transformation of the State itself regarding its performance focusing on local urban development (Klink & Souza, 2017). In particular, public credits in MCMV fostered housing production via publicly-listed developers and construction companies. In addition, nurturing conventions between professional communities in the real estate sector and the capital market boosted the growth cycle in the 2000s, changing the geography of housing (Sanfelici & Halbert, 2016).

Formally speaking, the MCMV is a single home-ownership programme, which is operationally structured into two different modalities according to the beneficiaries' income range, source of funds and proposing institution. The first modality corresponds to social housing, almost fully subsidised by budgetary funds. The second modality incorporates the production by real estate development (in its low-cost segment) into housing policy. In this modality, construction companies are financed by the Guarantee Fund Based on Service Time Contributions (*Fundo de Garantia do Tempo do Serviço* - FGTS)[2] (Ferreira, 2012).

In total, approximately 1.9 million units were contracted in the first modalitity (that is, 34% of the total financed) and 3.6 million in the second (66%). One of the main criticisms of the MCMV is that it did not allocate most of the resources to social housing, in which most of the Brazilian housing deficit is concentrated. Therefore, it prioritised the expansion of private production by developers for the medium-low segments and average-income households. Another negative aspect was the process of peripheralisation of projects in Brazilian cities either by reinforcing existing "consolidated peripheries" or opening "pioneering fronts" (Cardoso *et al.*, 2017).

Several studies in Brazil have correctly identified the expanded role of publicly listed developers in housing policies (Fix, 2011; Rufino; 2016). However, little progress has been made in the sociological analysis of this process, particularly in line with the the new role of instruments for assessing the future return on investment among real estate market professionals (Weber, 2021).

Understanding housing financialisation through the colonisation by financial numbers

At the international level, financial valuations spread massively from the 1990s (Van der Zwan, 2014), even though their theoretical bases had been laid at the start of the 20th century (Parker, 1968). In a few years, they colonised all economic sectors,

---

[2] Mosciaro & Aalbers (2020) consider that FGTS can be understood as an "asset-based welfare": "a policy developed in Brazil in the 1960s, which is a compulsory savings scheme, managed by the state and financed through monthly deposits made by employers on behalf of their employees" (p. 376).

including non-financial ones, replacing the traditional balance sheets which had come from the world of accounting for a long time (Chiapello, 2015, 2018).

The new avalanche of financial valuations is linked to the change brought about by inserting the shareholder value into corporate governance principles at the end of the 20th century (Streeck, 2014; Supiot, 2015). This avalanche is analysed precisely through a grid forged in the field of the sociology of quantification, which has experienced strong development since the 1990s, particularly in connection with the invasion, by managerial quantifications, of the management of organisations and public policies (Bruno *et al*. 2016; Desrosières 1998; Porter, 1995).

In particular, this avalanche of financial valuations is distinguished from that which characterised the previous period: the avalanche of accounting or managerial figures, which had been at the heart of the managerial revolution that took place in the twentieth century and had led to the overhaul of public administrations, through the so-called *New Public Management* movement (Hood, 1995; Kaplan & Johnson, 1987).

This provides an opportunity to strengthen and extend the diagnosis made very early by David Harvey, more than ten years before the structuring of the first schools of sociology of financialisation: he had grasped that the management of cities was in the process of moving from managerialism to entrepreneurialism (Harvey, 1989). The phenomenon is now globalised. Our analysis, specifically focused on the quantifications on which the governance of large companies is based, offers a unique prism: it shows that behind the continued hope of reducing the uncertainties that weigh on the future, the nature of the figures has changed profoundly, and no longer allows such reliable projections. National accounts that fueled economic planning policies have been replaced by Net Present Value (NPV) calculations, which only provide visibility in the short or very medium term.

The opening of this perspective joins the long-term and remarkably precise work carried out by Rachel Weber on the city of Chicago (Weber, 2015). One of the dynamics of her research is the analysis of the modes of projection into the future that the new financialised tools of city management allow professionals who develop or use them (Weber, 2010; 2021). From this point of view, our research makes it possible to feed the critical track of a projection very linked to the markets and not very robust to economic downturns.

Similarly, this paper helps to fuel the discussion with research that has focused on the new actors of urban policies, namely the international investors who impose these new financial evaluations (Guironnet *et al.*, 2016). It makes it possible to progress in the understanding of the mechanisms of appropriation by the historical actors (public authorities, developers) of these financialised logics and tools that largely reconfigure the modes of urban production.

Following this trend, this article contributes to a better understanding of recent mutations prompted by financialisation, from the sociological perspective of professionals at work, focusing on how these instruments penetrate organisations through the evolution of professions or training programmes (Boussard, 2017). If financialisation can be apprehended by the circulation of financial numbers, then one way of analysing the social changes linked to financialisation is to describe that circulation precisely. Which social groups mobilise these numbers? How does mastering these models and metrics extend their influence on organisations? These questions guided the field research carried out with real estate developers in Brazil, which during the 2000s, increased their participation in the country's economy, mainly through housing production. Our attempt is to contribute to the studies on financialisation that seek to densely describe the practices of its agents, as well as, in particular, to fill a historical gap about the trajectories and practices of developers in Brazil.

This attention to the financial form of quantification of the world that is required today will provide an opportunity to question the type of projection into the future favoured by financial calculation tools: are financial calculations the new international system of quantification capable of bringing together public and private elites to shape economic and urban planning policies? The Brazilian case suggests a double answer. If it is possible to consider that MCMV was a success from the political and financial point of view, joining public and private elites from different ideological points of views, its urban and social results could be like a time bomb, considering all the problems that will certainly arise from territories where there will be a dramatic lack of public equipment and transportation systems. Not to mention that a public housing policy for low-income families living in the famous Brazilian *favelas* is still insufficient.

Methodological Approach to the Brazilian Housing Sector

This article presents the results of a qualitative multi-method research study carried out with developers and construction companies that allocated part or all of their production to enterprises in the MCMV low-cost segment. Within these companies, we chose the ones that are considered "large" within the Brazilian context (more than 30 employees - IBGE, 2018) and that are publicly listed in the São Paulo Stock Exchange (Bovespa). Therefore, our first criteria considered relations with housing policy and financial investors.

Among the companies that fit these criteria, eight developers gave us permission to develop the field research, which took place between 2017 and 2019 and entailed: 12 semi-structured interviews with company managers (mainly middle managers); non-participant observation in the workplace across 16 offices and construction sites; and documentary analysis using the annual reports available on the companies' websites, as well as analysis of the database of sectoral surveys of the real estate market.

This qualitative approach allowed us, at first, to identify the narratives of the directors of the real estate developers. Thereafter, we visited construction sites where we observed the daily work and technological conditions of the production. The junction between the directors' narratives and the observation of practices on construction sites allowed us, in turn, to understand how the numbers and financial evaluations were operationalised in real life. In short, the field research was carried out in the large developers who operated in the low-segment and who allowed the interviews and access of researchers. Thus, the research did not attempt to account for all the publicly listed real estate developers, nor to characterise the sector in a uniform manner.

After developing the field research, two different groups were identified in this sample: three companies that focus exclusively on "popular residential developments" (as the companies themselves refer to "low-income projects"), and five that operate in residential developments in the medium and high-income segments, as well as in commercial ventures (one of which also operates in the low-income segment). The table below shows the main characteristics of the two groups:

Table 1: General characteristics of the companies studied (2018).

		Name	*Date it was founded*	*Headquarters*	*Implantation*	*Number of people employed*	*Net Revenue (R$ millions)*
Low-income Residential Developments	1	MRV e Participações S.A.	1979	Belo Horizonte	160 cities	14,273 employees* 8,048 outsourced 22,321 total	5,419
	2	Tenda S.A.	1969	São Paulo	>100 cities	2,733 employees 1,323 outsourced 4,056 total	1,681
	3	Direcional Engenharia S.A.	1981	Belo Horizonte	26 cities	4,576 employees 1,019 outsourced 5,595 total**	1,166

Medium, medium-high and high residential developments/Commercial	4	Cyrela Brazil S.A.	1962	São Paulo	67 cities	2,435 employees 2,745 outsourced 5,180 total	3,146
	5	Even Construtora e Inc. S.A.	2002	São Paulo	Cities of the states SP, RJ, MG and RS	549 employees 1,453 outsourced 2,002 total	1,474
	6	Gafisa S.A.	1954	São Paulo	>30 cities	313 employees 1,217 outsourced 1,530 total	960
	7	Trisul S.A.	2007	São Paulo	Greater São Paulo, inland and coast of São Paulo state	189 employees 528 outsourced 717 total	545
	8	EZTEC S.A.	1979	São Paulo	Greater São Paulo, inland and coast of São Paulo state	573 employees*** 446 outsourced 1,019 total	390

* Formally registered employees
** Data from 2017
*** Including subsidiary companies

Source: Prepared by the authors using the annual reports of the companies.

The first group refers to what was previously called the “low-cost segment” by the real estate market. All companies were founded between the 1960s and the 1980s and grew in the 2000s, especially from the MCMV. In 2018, 97% of MRVs' contracted sales were financed by FGTS (most linked to MCMV); 74% of Direcional's sales had financing from MCMV; and Tenda is exclusively focused on the Programme. In this group, MRV can be considered a special case, as it presents significantly higher numbers than the others: more than 22 thousand employees in total and almost R$ 5.5 billion in annual revenue[3].

The second group corresponds to the developers identified as medium and high-end and that operate across residential and commercial development. All have their headquarters in São Paulo, three of which were founded between the 1950s and 1970s

[3] In 2017, MRV was considered the largest developer in Brazil and the third largest construction company in the world (Available at: http://www.valor.com.br/empresas/5225931/mrvfara-investimentos-de-r-50-bi-em-dez-anos. Retrieved on 11/01/20).

and two in the 2000s. They operated in the low-cost segment and in the MCMV during the growth cycle of real estate activities. In this group, Cyrela stands out from the rest in that it has more than R$ 3 billion in revenue and has a subsidiary (Vivaz) and a joint venture (Cury) focusing on MCMV.

In terms of the shareholding structure, all companies have significant participation of “other shareholders”, varying between 42 and 70% of the total shares, which mostly correspond to free-float shares on the Bovespa. In the case of MRV, the “other shareholders” hold 61% of the shares, of which, 87% were foreigners in 2015.

Real Estate Developers and Public Housing Financing: from the origin of the sector to the real estate boom of 2006-2013

Except for the narratives contained in the "company history" of the companies' websites, there is a lack of studies on Brazilian developers’ trajectories in the literature. The sector's origins date back to the late 1930s when construction companies sought to increase their earnings by participating in developing their own construction projects (arranging land purchase, construction and selling). Between this origin and the real estate growth cycle from 2006 to 2013, there were two phases of studies in Brazil on this specific agent of housing production: the first occurred in the late 1970s and the second in the 2000s.

From the sector's origins to real estate restructuring

Since the 1960s, real estate development has played an important role in the verticalisation of Brazilian metropolises, mainly through financing middle-income families provided by the Housing Financial System and operated by the National Housing Bank (BNH). In 1964, the activity of real estate development was institutionalised in federal law. This new system of housing finance installed by the dictatorial regime between 1964 and 1985 integrated the development, construction and banking sectors. In the context of the economic recession and in accordance with Keynesian theses on the effects of long-term investment on employment and income, this policy was destined to become an element of both the overhaul of the banking system and the creation of an open capital market through the emission of government and real estate bonds (Montenegro, 1985). BNH financing was clearly essential in organising development in the country and was one of the first economic sectors to become independent from foreign capital (Salgado, 1984).

After BNH's end in 1986, real estate development lost economic relevance and the 1990s were marked by a period in which the companies themselves were restricted only to the high-income public or were responsible for financing consumption and production, encouraging self-financing (Castro, 2000). Developers and construction companies will regain strength in housing production for the middle- and low-income strata using public funding after lauching the Letter of Credit programme in 1995[4].

The first phase of studies on developers in Brazil took place in the early 1980s, influenced mainly by French urban sociology (Salgado, 1984; Ribeiro, 1997). By specialising in real estate capital (promotion capital), which was distinguished from productive capital and financial capital (Topalov, 1974), the emphasis was on the circulation of this capital within the cycle of the development itself and its articulation with the land market.

A second phase of studies appeared in the 2010s when the real estate and capital market valuation circuits were combined (Sanfelici, 2013). At first, the

---

[4] Most social housing programmes in Brazil were and continue to be geared towards accessing and financing homeownership. There is no policy aimed at social rental as there is in the global North, except for a municipal programme set up in São Paulo in the early 2000s.

internationalisation of the Brazilian real estate market was still in its infancy and restricted vis-à-vis the scope of the policies of monetary stability, economic opening, privatisations and deregulations that inserted Brazil into financial globalisation (Fix, 2011). The effective intertwining between the professional communities in the real estate sector and the capital market has only been consolidated since 2006 (Sanfelici & Halbert, 2016). There was an unprecedented growth cycle in real estate activities in Brazil, making the business very attractive to international investors. For example, in 2009, 12 of the 20 most profitable publicly listed construction companies across Latin America and the United States were in Brazil (Rufino, 2016).

On the one hand, Brazilian companies are capitalised using the capital market; on the other hand, international financial capital has connected with a real estate circuit previously reserved for local elites. Even capitalised, the real estate sector faced the historic barriers of Brazilian social formation and, among them, income inequality was partially circumvented by channelling public funds for housing financing, within the MCMV programme (Fix, 2011). The partnership between financial actors and developers had transformative effects on the development industry, promoting "real estate restructuring" (Pereira, 2018).

The emergence of a profile-type of large developers operating in the housing sector

Using private equity funds and stock exchanges (via Public Offering of Shares) to boost real estate production growth is recurrent in the countries of the so-called global South, where the influence of mortgage securitisation is still restricted (Rouanet & Halbert, 2016; Sanfelici & Halbert, 2016).

First of all, this resource allowed horizontalisation between development companies (through acquisitions and partnerships in the sector) and the centralisation of capital in large real estate developers, also supporting the concentration of real estate activity in metropolitan areas. Second, it also increased corporate governance, establishing a clear distinction between owners and managers and a search for managers with professional careers in other sectors (mainly financial) - that is, for qualified governance in the development. Third, but not less important, it allowed the industrialisation of developers' business models, with project management technologies and information technology used to strengthen cost control in the construction process (Sanfelici & Halbert, 2016; Shimbo, 2019).

These three combined movements caused the Brazilian real estate developers to present structures similar to other national contexts. The international circulation of financial tools and the globalisation process enable the emergence of a profile-type of large developers. The Brazilian companies analysed here go through the whole real estate cycle. Thus, they are similar to the largest and best-known real estate development companies in the USA, which are vertically integrated and operate financial loans, land acquisitions, real estate appraisals, construction, sales and building management (Weber, 2015, p. 40). In France, a standard profile of large developers was also consolidated in the 2000s, due to both mergers and acquisitions and the change in its shareholders (Pollard, 2018). In the case of Belgium, publicly-traded developers are considered to be "financialised" because they connect with investors from around the world, as national and regional exchanges are globally interconnected (Romainville, 2017). The companies listed on the stock exchanges can be considered as "financialised" by some authors because the expected gains are not only related to the profits generated by the productive activities (but also includes financial gains), and a large part of the assets traded in the capital market is in the hands of institutional investors (Aalbers, 2016).

The first diffusion of financial indicators in real estate developers

These developers can also be considered "financialised" from the perspective of the circulation of models and calculations formulated and used by finance professionals, as argued here. Chiapello (2018) classifies three groups of necessary operations performed by the "workers" of financialisation (accountants, lawyers, consultants, etc.) and who also determine the degree of financialisation of any issue. The first is “problematisation” which requires categorising and interpreting the world using the words and perspectives of an investor. The second is the “tangibilisation” in which ideas and expectations become susceptible to being included in contracts or accounts. The third is the “financial structuring” itself related to the organisation of money flows.

During the real estate boom of 2006-2013, the first operation of problematisation was widespread among the studied developers. According to one of the interviewees of these companies, the financial market was responsible for creating indicators to monitor the developers and construction companies that became a Limited Company (LTD) having shares traded on the Stock Exchange.

> So, the financial market ended up having to create indicators that until then did not exist to be able to monitor the performance and efficiency of these companies and these indicators were not always healthy indicators. I remember very well that one of the indicators was launch: launch, launch, launch. When you stop to think: “God! How am I going to launch without having a well-defined organisational culture, without having well-defined processes, without having trained people?” It's almost like shooting yourself in the foot. [The number of launches] was used to increase the share value (Director, medium/high-end company, March 2018).

This perception is corroborated by one of the real estate consultants who was interviewed. According to him, it was a process induced by the financial market in a sector that was not ready to receive “so much money” and some strategies were invented only here in Brazil, such as the landbank of developers (Director, local real estate consultancy, February 2018).

The Brazilian developers sought to show the feasibility of the production of residential projects promised to the new shareholders of the companies, using growth numbers related to land (landbank), labour productivity (Potential Sales Value - PSV) and accumulated capital (total profit). Reinforcing the bet on future growth, the land stock was evaluated not by the sum of the current land prices, but on the potential value of future sales from the real estate developments that it could generate (PSV) (Sanfelici & Halbert, 2016).

One of the dynamics that led to the activities of these companies was the low-cost segment and the MCMV programme. All real estate developers analysed in this article were active in the low-cost housing segment, financed by MCMV Ranges 2 and 3. Some presented all of their production in this segment (as is the case of MRV and Direcional), others carried out joint ventures with other companies (Gafisa and Cyrela) and others created specific product lines to serve the low-cost segment (EzTec, Trisul and Even). Tenda was a separate case, as it was a company that already operated in the low-cost segment and was acquired by Gafisa in 2008, to be split-off later in 2014 (Shimbo, 2012).

Real Estate Developers and Financialisation after the 2014 Crisis

From 2014, for the studied developers, it was no longer the growth numbers that were on the agenda among professionals, but rather the strategies to survive the crisis and, more than that, to professionalise and consolidate the development market.

Growth was already showing signs of exhaustion even before that moment, given the insufficient supply of labour, equipment and materials, which did not support such an increase in demand, as highlighted by the two directors interviewed:

> So, you wanted to produce, using money to produce, but you were unable to produce because there was a lack of manpower, material, everything was missing. We had already realised that it would not work... (Director, medium/high standard company, February 2018).
>
> That world crisis, it helped to stabilise the market here, [which] reduced because it was spinning in a context that it didn't have, it wasn't compatible, there was nothing, no material, no labour, no equipment (Director, medium/high standard company, July 2019).

All companies reduced the number of their residential launches after 2013. A direct consequence of the crisis was the “downsizing” in the number of personnel directly employed by the companies, in both groups, low-income and medium/high. The most extreme case was that of the medium/high-end company, Gafisa, with a reduction of more than 50%. Even MRV, from the low-income group, which maintained its production during the crisis at “cruising speed”, and which was an exception among developers, reduced its staff by 25%. They, therefore, began to intensify the outsourcing of services - technical, more specialised and construction works - for small and medium-sized companies, an aspect that generated an increase in the value of works and services of small and medium-sized companies in the residential construction sector (IBGE, 2018).

In this restructuring process, a standard manager profile, already relevant during the previous period, became dominant: male, white, young (between 35 and 45 years old), civil engineer, with complementary training in finance and real estate management and rapid ascendancy in the company. It is worth mentioning that only one woman was interviewed, who did not hold a management position, but rather a quality coordination function.

The production growth indicators (landbank, PSV and profit) remain in the companies' reports, but after the recession, the financial evaluation of companies (within the principle of transparency of corporate governance) and certification of the viability of the real estate investment took shape and became more important. Indicators on future profitability as Net Present Value (NPV), Internal Rate of Return (IRR)[5], Return on Equity (ROE), were added to the production indicators in both groups of developers. In terms of sociology of quantification, which is one of our perspectives, financial numbers become ever increasingly more dominant. This dominance is necessary for financial expectations to become tangible, corresponding to the second operation of financialisation as a socio-technical process, defined by Chiapello (2018), already cited.

The recession gave a greater place to numbers that measure another kind of feasibility, now based on the “time value” of money, “a market device that allows professionals to telescope the future down to the present and project current values outwards toward the beacon on the horizon” (Weber, 2021, p. 2).

However, after the crisis, companies that did not produce housing for low-income populations before MCMV returned to their original niche markets (i.e., to the medium and high-end). The developers that focused exclusively on the low-income

---

[5] NPV is one of the main parameters for shareholders to choose their investments because it considers the temporality of the money and the risk of the investment. According to the "bible" of financial management: "a positive NPV implies that the rate of return on your investment is higher than the opportunity cost of capital, i.e. higher than you could obtain by investing in financial markets" (Brealey *et al.*, 2013, p. 19).

segment continued their production and further increased their participation in this market, which has become highly concentrated in these companies. Thus, a clear distinction between the developers was evident: the medium and high-end group became increasingly financialised, with major colonisation of financial instruments in the professional body of companies; and the group engaged in low-income projects became increasingly dependent on public funding to scale housing, introducing technological innovations to its industrial base.

Division of the Real Estate Developers into Two Groups: Industrial Giants of Housing Production and Financialised Developers

During the recession, there was greater interest from foreign investment funds in participating in residential projects of medium/high-end companies. This type of investor saw that the “low” period was an opportunity to invest in the country, according to one interviewee. Therefore, the financial indicators were fundamental to communicate with these investors.

In this context, the use of financialised indicators becomes more prominent in the medium/high-end developers that have greater participation of asset managers. These professionals promote articulation with institutional investors. In the words of an interviewee, in 2018, it is the financialised indicators (cash flow) that are most important for the disclosure of developers' performance among professionals in the financial sector.

This introduction of financialised indicators did not come without “suffering”, as the interviewee points out, showing that there was some resistance to the diffusion of this financial rationality. In addition, the type of financial indicator was adapted for each purpose. Some indicators (such as gross margin, net margin, IRR and NPV) are used to make decisions about the feasibility of a particular project and are discussed in specific strategic committees, which bring together some company boards.

> ... these indicators are used so we can analyse the viability of the business. [...] if the financial indicators are not attractive, we prefer not to go ahead with the project. [...] From 2013 [onwards], the new president, the new executive body, 100% of the decisions taken [are] on top of these indicators (Director, low-income company, January 2018).

In the case of a medium-high-end developer, the company's president has a bank. And this banker's vision, according to the interviewed director, allows for a broader “economic vision”, analysing the national economic situation and openness to learn about other international markets - in this case, North America. This director pointed out that the president's banker view was that if “the government was having a problem with money to transfer to the low-cost segment”, the developer should change its focus, moving to medium-low-end (Director, medium/high-end company, July 2019).

If the essence of the narrative of the directors of the medium-high-end developers was this link with the financial sector, the emphasis given by the directors of the group of low-income enterprises was to introduce technological innovations in the construction site. In terms of construction methods, the novelty brought by the developers of low-income developments in this post-recession period of 2014 was the scale introduction of the “reinforced concrete walls cast in place” system, as it is technically called, or better known as the “concrete wall” system. Despite being widely used in other countries, the concrete wall system has recently been disseminated in Brazil, since 2007, and coincides with the rise in real estate activities and housing production (Braguim & Bittencourt, 2014).

In 2019, the three low-income enterprise companies (MRV, Direcional and Tenda) had almost completely migrated their production to this constructive method. The structural masonry in concrete blocks, which reigned during the height of the MCMV, was replaced by concrete walls in less than five years.

In addition to this change, the *standardisation* of projects was structural in companies of low-income enterprises. In general, the same housing typology (in urban, architectural and construction terms) is reproduced regardless of its location in a country with a continental dimension. In medium-high-end companies, standardisation played a secondary role in post-2014 changes. The following figures illustrate this construction system in the two adopted patterns: buildings with up to five floors (without lift) and 18-floor towers.

Figure 1: São Paulo (SP) - Brazil. Concrete walls already finished in a low-income enterprise.

Figure 2: São Paulo (SP) - Brazil. Concrete walls built in a low-income enterprise.

The production process of developers of low-income enterprises followed the premises that Ball (1983) identified as the main sources of innovations in this field: standardisation, economies of scale and efficient production management.

The Top-down Spread of Financial Valuation Instruments in Financialised Developers

In the medium-high-end developer group, the diffusion of financial instruments merged with a corporate restructuring. In the case of one of them, the changes between production management and governance were concomitant. In other words, there was a restructuring in the boards so that functions of planning and production control, which were previously in the hands of engineers *cum* coordinators of works, was passed to the structure of the developer's corporation. As a result, the company's executive board was reduced. The developer took over production control internally.

In another medium-high-end company, a "crisis committee" was set up that articulated the company's strategic planning with the technical (production) area. Thanks to a production management programme created more than a decade ago, it was easier to change all the company's hierarchies, from the executive boards to the construction site:

> We set up a crisis committee a couple of years ago and we "linked" strategic planning with the technical area ... [...] we created a performance programme that is an outcome of the strategic goals and the routine development ... It has been evolving year by year and two years ago, we focused on organising this meeting: to make the construction site an extension of the corporation and not just a construction site (Director, medium/high-end company, March 2018).

This last sentence sums up this process very well in terms of what the medium-high-end developers went through: the construction site becomes like a corporation. The "performance programme" mentioned above, which made it possible to join the construction site with the corporation, integrates certification and validation processes in several categories, such as: product quality, contracting suppliers, production productivity, planning and costs. The novelty of this programme is that the category of construction costs is measured by NPV. Therefore, in addition to measuring past costs, from a conventional accounting perspective, future earnings are projected thus spreading financial calculations to ground level practices. In this case, this projection can be seen in the relationship between inflows and outflows, counting on the payment of long-term suppliers during the construction site period.

If the engineers had already become familiar with the first two operations of problematisation and tangibilisation of financial expectations, and although they do not deal directly with the structuring of financial channels (the third operation mentioned by Chiapello, 2018), they now use these indicators to measure the viability of the *existing* production.

Final considerations

This research on changing the practices carried out by Brazilian real estate developers presents results that contribute to the conceptual understanding of urban and housing financialisation. Based on an "internalist" sociological perspective, financialisation has been understood as the colonisation of daily work by financial calculations, the most important of which are discounted cash flows (DCF) and net present value (NPV) (Boussard 2017; Chiapello 2015). In our case, this reading was applied to the real estate development activity.

Real estate development produces a specific commodity, to the extent that its products (buildings) are immobilised on the ground and do not circulate as other "industrial" goods. This characteristic requires a relatively important initial capital contribution, notably for the acquisition of the land, causing the developers to interact, on the one hand, with landowners, but also with financial agents (banks or other institutions). An original theoretical debate in the 1970s aims to account for this specificity, with the work of economists (Ball, 1983; Granelle, 1970; Lipietz, 1974) and sociologists (Castells, 1972; Topalov, 1974).

The weight of financial agents in the growth of real estate development was fundamental in countries such as the United States (Rabinowitz 1980) and France (Combes & Latapie, 1973). In the latter, the origin of real estate development is directly linked to banks and, since the beginning, the directors of development companies used financial metrics to calculate the internal rates of return of their operations, operating as “financial natives” (Bardet *et al.*, 2020). In the urban contexts that are at the centre of global capital flows, as is the case in Chicago for example, developers were subjected to the logic of financial investors (Weber, 2015).

The research demonstrates that Brazilian developers were very proactive, first in the context of the launch of Lula's MCMV programme and then in the economic crisis that would hit the country in 2014. In the first moment, all the developers benefitted from the historical privileging of homeownership which was boosted with the strong public financing of the MCMV and the inertia effect that made Brazil a momentary refuge for international investors. To this end, financial indicators were created and disseminated to demonstrate the industrial growth of production (Potential Sales Value, landbank and profit).

In the second period, post-crisis, the developers devised strategies to endure the economic crisis. They reduced production, dismissed employees, started to incorporate financialised indicators to evaluate both the companies and the viability of real estate investments (NPV, IRR, ROE), and the sector split into two groups. The group of developers of low-income enterprises lies on what remains of the public legacy, concentrating even more the production of the MCMV Ranges 2 and 3 in these companies. It improves the industrial model of large-scale production of housing, based on creating private profit and appropriation of land rents. The medium-high-end group underwent more profound transformations in order to maintain the profitability rates that should be competitive in international markets, promoting a corporate and productive restructuring, in which the financialised valuation fall into the company's operational levels.

Therefore, the same financial tools used in real estate and housing development worldwide are currently being used in Brazil. Its adoption by Brazilian developers, however, followed a specific pace and segmentation, ruled mainly by the expansion and crisis of a governmental housing programme and its public funding. During the expansion period, all developers made use of financial tools capable of demonstrating the feasibility of large-scale housing production. After the 2014 crisis and recession, low-cost housing developers still relied on its industrial productivity as a value differential but adopted financialised valuation tools when reporting to top management or investment funds. For medium and high-cost housing developers, nevertheless, financialised valuation tools are not just a way of reporting results to international investors, but also a way to restructure the company itself, even the construction site, renewing colonisation by financial numbers.

References

Aalbers, M. B. (2012). *Subprime Cities*: The Political Economy of Mortgage Markets. (Chichester: Wiley-Blackwell).

Aalbers, M. B. (2016). *The Financialization of Housing*: A political economy approach. (London; New York: Routledge).

Aalbers, M. B. (2017) The variegated financialization of housing, *International Journal of Urban and Regional Research*, 41, pp. 542–554.

Aalbers, M. B., Rolnik, R. & Krijnen, M. (2020) The Financialization of Housing in Capitalism's Peripheries, *Housing Policy Debate*, 30:4, pp. 481-485.

Adisson, F. (2018) L'action publique urbaine transformée par les méthodes d'évaluation financière. Le cas de projets urbains en Italie. *Espaces et societes*, 174(3), pp. 87–103.

Ball M. (1983) *Housing Policy and Economic Power*: The Political Economy of Owner Occupation. (London; New York: Routledge).

Bardet, F., Coulondre, A., & Shimbo, L. (2020). Financial natives: Real estate developers at work. *Competition and Change*, 24(3-4), pp. 203-224.

Boussard, V. (2017). *Finance at Work*. (London: Routledge).

Braguim, T. C. & Bittencourt, T. N. (2014) Dimensionamento de paredes de concreto armado moldadas no local para a máxima tensão normal de compressão. *Revista IBRACON de Estruturas e Materiais* 7(3), pp. 498–533.

Brealey, R., Myers, S. & Allen, F. (2013) *Princípios de Finanças Corporativas*. (São Paulo: AMGH).

Bruno, I., Jany-Catrice, F., & Touchelay, B. (Eds.). (2016). *The Social Sciences of Quantification*: From Politics of Large Numbers to Target-Driven Policies, Vol. 13. (New York: Springer).

Cardoso A. L., Aragão T. A. & Jaenisch S. T. (Eds) (2017) 2*2 Anos de Política Habitacional No Brasil*: Da Euforia à Crise. (Rio de Janeiro: Letra Capital).

Castells, M. (1972) *La question urbaine*. (Paris: F. Maspéro).

Castro, C. M. P. (2000). A explosão do autofinanciamento na produção da moradia em São Paulo nos anos 90, Doctoral dissertation, Universidade de São Paulo, 2000.

Chiapello, E. (2015). Financialisation of Valuation. *Human Studies*, 38(1), pp. 13–35.

Chiapello, E. (2018). The work of financialization, in I. Chambost, M. Lenglet & Y. Tadjeddine (Eds) *The Making of Finance*: Perspectives from the Social Sciences, pp. 192-200 (London: Routledge).

Combes D. & Latapie E. (1973). *L'intervention des groupes financiers français dans l'immobilier*. (Paris: CSU).

David, L. & Halbert, L. (2014) Finance Capital, Actor-Network Theory and the Struggle Over Calculative Agencies in the Business Property Markets of Mexico City Metropolitan Region. *Regional Studies* 48(3), pp. 516–529.

Desrosières, A. (1998) *The Politics of Large Numbers*: A History of Statistical Reasoning. (Cambridge: Harvard University Press).

Ferreira, J. S. W. (2012*) Produzir casas ou construir cidades?* Desafios para um novo Brasil urbano Parâmetros de qualidade para a implementação de projetos habitacionais e urbanos. (São Paulo: FUPAM: LABHAB).

Fix, M. (2011). Financeirização e transformações recentes no circuito imobiliário no Brasil. Doctoral dissertation, Instituto de Economia, Universidade Estadual de Campinas, 2011.

Granelle, J. J. (1970) *Espace urbain et prix du sol*. (Paris: Sirey).

Guironnet, A., Attuyer, K., & Halbert, L. (2016). Building cities on financial assets: The financialisation of property markets and its implications for city governments in the Paris city-region. *Urban Studies*, 53(7), pp. 1442–1464.

Halbert, L. & Attuyer, K. (2016) Introduction: The financialisation of urban production: Conditions, mediations and transformations. *Urban Studies*, 53(7), pp. 1347–1361.

Harvey, D. (1989). From managerialism to entrepreneurialism: The transformation in urban governance in late capitalism. *Geografiska Annaler*, 71 (B1), pp. 3-17.

Hood, C. (1995). The 'New Public Management' in the 1980s: Variations on a Theme. *Accounting, Organizations and Society*, 20(1-2), pp. 93-109.

Instituto Brasileiro de Geografia e Estatística – IBGE (2018). *Pesquisa Anual da Indústria da Construção*. Brasília: IBGE.

Kaplan, R. S., & Johnson H. T. (1987). *Relevance Lost*: The Rise and Fall of Management Accounting. (Boston: Harvard Business School Press).

Klink, J., & Souza, M. B. de. (2017). Financeirização: conceitos, experiências e a relevância para o campo do planejamento urbano brasileiro. *Cadernos Metrópole*, 19(39), pp. 379–406.

Lipietz, A. (1974) *Le tribut foncier urbain*: circulation du capital et propriété foncière dans la production du cadre bâti. (Paris: François Maspero).

Mezzadra, S. & Neilson, B. (2019) *The Politics of Operations*: Excavating Contemporary Capitalism. (Durham: Duke University Press).

Montenegro, A. M. (1985) Le financement du logement social au Brésil: l'impasse d'une politique. *Travaux de l'Institut Géographique de Reims*, 61-62, pp. 23-35.

Mosciaro, M. & Aalbers, M. B. (2020) Asset-based welfare in Brazil. *Housing Studies* 35(2), pp. 376–389.

Neto, P. N. & Arreortua, L. S. (2020) Financialization of housing policies in Latin America: a comparative perspective of Brazil and Mexico. *Housing Studies*, 35:10, pp. 1633-1660.

Parker, R. H. (1968) Discounted cash flow in historical perspective. *Journal of Accounting Research*, 6(1), pp. 58–71.

Pereira, P. C. X. (Ed) (2018) *Imediato, global e total na produção do espaço*: a financeirização da cidade de São Paulo no século XXI. (São Paulo: Universidade de São Paulo. Faculdade de Arquitetura e Urbanismo).

Pollard, J. (2018) *L'État, le promoteur et le maire*. (Paris: Presses de Sciences Po).

Porter, T. M. (1995) *Trust in Numbers:* The Pursuit of Objectivity in Science and Public Life. (Princeton: Princeton University Press).

Rabinowitz, A. (1980*). The real estate gamble*: Lessons from 50 years of boom and bust. (New York: AMACOM).

Raco, M. (2013) The New Contractualism, the Privatization of the Welfare State, and the Barriers to Open Source Planning, *Planning Practice & Research*, 28:1, pp. 45-64.

Ribeiro, L. C. de Q. (1997) *Dos cortiços aos condomínios fechados*: as formas de produção da moradia na cidade do Rio de Janeiro. (Rio de Janeiro: Editora Record).

Rolnik, R. (2019). *Urban Warfare*: Housing Under the Empire of Finance. (New York: Verso Books).

Romainville, A. (2017). The Financialization of Housing Production in Brussels. *International Journal of Urban and Regional Research*, 41(4), pp. 623–641.

Rouanet, H. & Halbert, L. (2016) Leveraging finance capital: Urban change and self-empowerment of real estate developers in India: *Urban Studies*, 53(7), pp. 1401-1423.

Rufino, B. (2016). *A incorporação da metropóle*: transformações na produção imobiliária e do espaço na fortaleza do século XXI. (São Paulo: Annablume).

Salgado, I. (1984). La promotion immobilière à São Paulo, Doctoral dissertation, Université Paris XII-Val de Marne, 1984.

Sanfelici, D. (2013). *A metrópole sob o ritmo das finanças*: implicações socioespaciais da expansão imobiliária no Brasil. Doctoral dissertation, Faculdade de Filosofia, Letras e Ciências Humanas, Universidade de São Paulo.

Sanfelici, D. & Halbert, L. (2016). Financial markets, developers and the geographies of housing in Brazil: A supply-side account. Urban Studies, 53(7), pp. 1465–1485.

Sanfelici, D. & Halbert, L. (2019) Financial market actors as urban policy-makers: the case of real estate investment trusts in Brazil. *Urban Geography* 40(1), pp. 83–103.

Shimbo, L. (2019) An unprecedented alignment: State, finance, construction and housing production in Brazil since the 2000s. *International Journal of Housing Policy* 19(2), pp. 337-353.

Shimbo, L. (2012). *Habitação social de mercado*: a confluência entre Estado, empresas construtoras e capital financeiro. (Belo Horizonte: C/Arte).

Smyth, S. (2019) Embedding financialization: a policy review of the English Affordable Homes Programme, *Housing Studies*, 34:1, pp. 142-161

Streeck, W. (2014) *Buying Time*: The Delayed Crisis of Democratic Capitalism. (New York: Verso Books).

Supiot, A. (2015) *La Gouvernance par les nombres*. (Nantes, Paris: Fayard).

Topalov, C. (1974) *Les promoteurs immobiliers*: contribution à l'analyse de la production capitaliste du logement en France. (Paris: Éditions de l'École des hautes études en sciences sociales).

Van der Zwan, N. (2014) Making sense of financialization. *Socio-economic review* 12(1), pp. 99–129.

Weber, R. (2015). *From Boom to Bubble*: How Finance Built the New Chicago. (Chicago: University of Chicago Press).

Weber, R. (2021). Embedding futurity in urban governance: Redevelopment schemes and the time value of money. *Environment and Planning A: Economy and Space*, 53(3), pp. 503-524.