

Financial natives: Real estate developers at work

Competition & Change

0(0) 1–22

© The Author(s) 2020

Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/1024529420920234

journals.sagepub.com/home/cch**Fabrice Bardet**

Université de Lyon, France

Alexandre Coulondre

Université Paris-Est, France

Lucia Shimbo 

Universidade de São Paulo, Brazil

Abstract

Financialization, even contested, is a major focus of contemporary urban studies. The growing interest of institutional investors in real estate investments has been the subject of in-depth analyses that have suggested the need to critically examine their weight in contemporary urban production. Have investors become the new masters of the urban fabric, to the detriment of historical players such as property developers or local authorities? This article informs the discussion by looking at developers at work and identifying how financial profitability calculations could have invaded their activities. Based on a qualitative survey conducted in France on practising or retired professionals, it shows that there has actually been a surprising degree of stability in professional practices over the past 50 years, even though the economic environment changed at the beginning of the 1990s. Since the origins of the property development sector in France, the real estate firms have had close ties with the financial industry and have been using financial instruments. This is why they were considered as ‘financial natives’, while employees at the operational level remain outside the scope of the colonization of organizations by financial quantifications. The specific nature of real estate work, particularly its political component, means that decisions lower down in these companies cannot be guided solely by financial ratios. The extent of the changes triggered by the massive arrival of financial investments has not been as great as it may seem, since developers appear to have maintained most of their ability to influence contemporary urban governance.

Corresponding author:

Lucia Shimbo, Universidade de São Paulo, Av. Trabalhador São-carlense, 400, São Carlos 13566-590, Brazil.

Email: luciashimbo@usp.br

Keywords

Financialization, financial quantification, professional practices, real estate developer

Introduction: Challenging financialization of urban policies through the colonization of real estate developers by financial tools

Since the late 1990s, extensive research has been undertaken in the social sciences on the financialization of economies and societies (Van der Zwan, 2014). Two of the schools of thought identified as having structured the field refer to the ‘colonization’ of private and public organizations by financial calculation tools (Chiapello, 2015; Power, 1997). This ‘colonization’ was first analysed as one of the main components of the corporate governance reform movement initiated in the early 1990s (Streeck, 2014; Supiot, 2015), but it also appears at the heart of a more global transformation of rationalities and social practices outside of the companies themselves (Chiapello, 2018).

In this article, we apply the theoretical framework of the colonization of so-called ‘non-financial activities’ – here, real estate developers’ work – by financialized valuations to gain insight into the ‘financialization’ of urban production, a theme that now structures international debates in the field of urban studies (Aalbers, 2016; Halbert and Attuyer, 2016; Weber, 2015).¹ These debates have shed light on the role of new financial actors (institutional investors and asset managers) in the old process of making land a financial asset (Harvey, 2006). But in terms of urban policy analysis, one important question is whether the arrival of the new financial actors has overturned the leadership of urban governance which historically has always been monopolized by public and private local elites (Le Galès, 1995). In other words: have investors become the new masters of the urban fabric? Looking at how property developers incorporated or refused the financial calculations spread by investors, our aim was to answer this question and to discuss more broadly what the financialization of cities means.

This study enables us to bring to light the sharing of financial calculations in France, from the outset, between real estate development companies and the banking industry. The results suggest an ‘original’ financialization of property developers that explains the subsequent stability of their professional practices, particularly with the massive arrival of institutional investors in the real estate market. Faced with the new financialization of the world, French property developers acted as ‘financial natives’ operating easefully in the new financialized environment. This could be seen as very similar to the situation in most other countries, especially in the US, considering the historical analysis of that country, where the connection is evident between the first public-sector developers of social housing, in the 1930s, and the Federal banking system (Rabinowitz, 1980). In the case of the UK, developers have likewise been analysed for several years as a particular kind of business with two strands: commercial/financial and industrial (Ball, 1983).

Our research also enables us to distinguish between the activities of directors of real estate development companies – the financial natives – and those of their middle managers. The latter are exclusively devoted to local contexts, and therefore cut off from financial calculations tied to the firm’s strategic management. This explains why, despite the ongoing

process of financialization, investors always inquire into the liquidity of real estate assets, the local particularities of which they have difficulty understanding from the outside. The unknowns that local actors (developers and public authorities) introduce into the economic dynamics of urban production actually still count. The real estate developers studied here, who were entirely devoted to local property development, seem thus to have maintained their decisive weight in urban governance in this era of global financialization.

Scientific perspectives on financialization, today and yesterday

From the outset, real estate development always required a large amount of advance capital. The function of financing both the creation of their product (obtained by companies from banks or other institutions) and its consumption (through loans to the buyer, via banks or housing programmes) is fundamental. But this is pure financing. The process that became known as ‘urban financialization’ or ‘financialization of cities’ relates to the changes that occurred after 1990 in the very structure of the financing and ownership of real estate, and which made the production of cities possible.

Urban financialization

On the supply side, the entry of institutional investors (pension funds, insurance companies, REITs, etc.) and their asset managers into commercial real estate (offices, shops, industrial facilities) changed relationships and practices among the historical actors of urban production. This holds true even in countries where the intertwining between the capital market and the real estate market was old, as in the USA (Rabinowitz, 1980; Weber, 2015). The institutional investors took advantage of a change in the model of large firms that outsourced the management of their assets (Nappi-Choulet, 2013; Nappi-Choulet et al., 2009), in a broader context of internationalization of markets (Theurillat, 2011). They subsequently moved into housing (apartments, serviced housing complexes), thus ‘re-developing’ part of their asset portfolio (Aalbers, 2016) and in so doing, echoing a very old tradition of financial investors’ involvement in large cities (Lescure, 1982). In addition, the presence of international shareholders resulting from the IPO of several real estate developers has increased the numbers of financialized organizations in the housing sector, both in Europe (for example, Belgium – Romainville, 2017) and in Latin American countries (such as Brazil – Pereira, 2017). Housing has thus been seen as a prime example of the financialization of non-financial firms and industries dominated by financial narratives and practices (Aalbers, 2016).

To ensure returns on their investments, these ‘new entrants’ must compare their financial profitability on a global scale – something that the traditional financial players in the sector – the banks, focused on loan distribution – did not do (Corpataux and Crevoisier, 2016). Through complex legal arrangements (between real estate companies and investment funds), they ensure their ability to exit from real estate investments, thus ‘liquifying’ them according to a longstanding logic of homogenization of commodities (Carruthers and Stinchcombe, 1999). These arrangements ultimately lead to new ways of producing the ‘assetization’ of real estate properties, which have been the subject of pioneering research on the sociological dimensions of urban production (Halbert and Attuyer, 2016; Weber, 2015).

This focus on new entrants may have led, albeit unwittingly, to the idea that they had conquered urban production. There is a long-standing tradition in political science of trying

to identify who shapes the demand for urban development – the State or developers and construction companies – within a broader ideological and political agenda (Fainstein, 2001). Our aim is to inform the discussion with this research, focusing on changes in the activity of these historical actors in urban production. Several researches on financialization of cities have already focused on historical players. A pioneering study focused on how financial capital was injected into local authorities' debt instruments (Weber, 2010), while other researchers have looked at the shareholder structure of real estate developers and the influence of financial markets on the property development industry (Aalbers, 2016; Lorrain, 2011; Romainville, 2017; Sanfelici and Halbert, 2015). We focus on the way developers were colonized or not by financial calculations.

Following the thread of Marxist urban sociology

Financial calculation, at the heart of urban production and especially of developers' activity, was actually a major issue in Marxist urban sociology of the 1970s, which was particularly active in French scholarship. Topalov's book on property developers, which was the reference, thus described at length the 'countdown' (called *compte à rebours* in French) which they used to determine the price they were prepared to pay for land to implement their projects (Topalov, 1970). This calculation, which was initially discussed with economists (Granelle, 1970; Lipietz, 1971), gradually became a reference in urban sociology (Comby, 1996; Coulondre, 2017). Yet, it only partially reflects the activity of the urban manager that the property developer is.

The 'countdown' can indeed be seen as an accounting presentation of property development operations, based on the addition and subtraction of expenditures (purchasing land, construction costs) and revenues (sales). It lies at the heart of property developers' activity, for this is how they estimate the 'margin' that they can hope to make on an operation. It does not, however, reflect the vision of their banking partner, although they are in a sense compelled to share that vision. The calculations of financial partners are based on the internal rate of return of operations (Dhuys, 1975).² It is these financialized calculations that are currently generalized and that we wish to trace back to their origins. In this respect, urban sociology has not been very active.

Although the link between property developers and banks has been studied very specifically by urban sociologists (Combes and Latapie, 1973), in those cases, the focus has been on the property developers only. Topalov's book examined the actual operations of the 'system' of property development, downstream (in the production chain) of the 'real estate financing system' (p. 21), and whose function was the 'management of real estate capital in circulation' (p. 19). The analytical framework of the Marxist approach thus separated 'real estate development capital' from financial capital. By focusing on developers, the links between them and the banking groups which created them slipped out of view.

This analytical separation between the property development system and the banking system has never been challenged by the Marxist school, including when it explored the long-term evolution of the housing industry. In Topalov's explicitly historical 1987 book, the juxtaposition of systemic analyses makes it possible to identify and precisely date changes in the property development system, for example, in the early 1960s, when 'financial groups began to intervene on a large scale in real estate development' (p. 253) or at the end of the 1960s, when 'bank capital dominated the real estate market' (p. 295). But the political and social logics of these transformations are not explained. The mechanisms of a possible

domination of real estate actors by the banking sector are not envisaged, as financial calculations remain outside the analyses. The research of historian Sabine Effosse has made it possible to describe in detail the institutional processes that spawned the real estate development sector in France, when national public authorities gradually involved private capital in the construction of housing, initially through the implementation of a first bonus and loan system in 1950 (Effosse, 2013). New impetus, which seems to have been more decisive in triggering the development of this industry, was generated in the midst of the 1958 constitutional crisis and at a time when government activity seemed to have been suspended. A few days before the referendum that was to give full powers to General de Gaulle, a government decree authorized the creation of ‘government-regulated companies’ (*sociétés conventionnées*). The purpose of these companies was the construction of low-cost rental housing, which would be granted preferential loans previously reserved for the construction of social housing. ‘From 1959 onwards, banks and financial groups were to take a direct interest in property development and to discover the advantages of equity and control’ (Houdeville, 1969). But, for reasons different to those of the Marxist school, Effosse’s research does not either pay much attention to financial calculations.

While Marxist urban researchers placed property developers’ ‘countdown’ at the heart of their work from the outset, they did not link it to the calculations of financial profitability developed in parallel by the banks, whose extension is currently envisaged as one of the markers of financialization. This was our perspective in our research.

Historical perspective on developers’ financial calculation practices

In the development of the sociological view of financial calculation tools mentioned in the introduction, the French research tradition is recognized as influential (Van Der Zwan, 2014). It is perhaps even more so when we consider the role played by Alain Desrosières in promoting the ‘sociology of quantification’ that informs it today (Bruno et al., 2016), particularly in relation to the largely English school of critical accounting and the French developments on which he has worked (Chiapello and Desrosières, 2006). Our perspective is informed by Desrosières’ (2003) reflection on the connections between modes of government and forms of quantification of the world.

From an even more macroscopic point of view, Pierre Bourdieu (of whom Desrosières had been a passionate student) taught ‘the analysis of the economic and social conditions of the emergence of economic calculation’. He studied the processes of ‘social differentiation’ from a global perspective (Bourdieu, 1987). This fundamental sociological school had already provided input for earlier research on the processes of financialization of economies (François and Lemercier, 2017). Here again, we are perpetuating this tradition by seeking to bring it closer to the quantification tools approach. We envisage financialization through the diffusion of financial calculation tools promoted by the agents with singular academic and social trajectories that we study.

Our longer term analysis seeks to detect whether the professional practices of real estate developers may have been ‘colonized’ by ‘financial calculations’. We consider the period from the constitution of the French real estate development sector in the 1960s to today. To do so, we have looked both at the organizations involved – their organizational structure, the specific profiles of agents, their rules and internal doctrines regulating professional practices – and at the professional practices themselves: those of the agents ‘at work’ (Boussard, 2017; Erturk et al., 2007).

We have identified significant stability in the discourse and professional practices of property developers in France over the past 50 years, at all levels of responsibility. To account for this consistency, we examine the socio-genesis of the French real estate development industry, through the analysis of professional textbooks published across this period. An important sociological factor was the highly standardized careers of the top managers of real estate companies. Originally, almost all of them graduated from the Ponts et Chaussées (engineering school). Aside from the corporatist dimensions of the French system that this homogeneity highlights (Bourdieu, 1998), the engineers recruited were trained to calculate and manipulate Internal Rate of Returns (IRR), the formula of financial profitability of real estate operations. We attribute the stability of professional practices to the historical continuity of the senior executives' social background. This can explain why real estate development companies have not been disrupted by the arrival of institutional investors. The top managers were 'financial natives'³ prepared to face the expectations of these new challenging clients responsible for the so-called financialization of real estate. By examining the professional practices of the more operational levels (regional directors and programme managers) through interviews, we found that their work was mainly oriented towards knowledge of the territory and the identification of property development opportunities in connection with local urban policies. In the discourse, the vast majority of subordinate employees reject the idea of a financialization of their profession, and their actual practices show a complete separation with financial instruments. These employees on the ground reason with an *accounting margin* indicator but never with financial formulae such as the IRR and the Net Present Value (NPV), even if they know that their directors pay attention to these calculations. There is an internal segregation within the organization of property developers, between front-line staff and corporate decision-makers looking at the asset as part of a portfolio.

Methodological approach

We undertook qualitative research in the real estate development industry in France, taking both sociological and historical approaches. We first carried out documentary research on several textbooks published by and for real estate developers between 1970 and 2015.

Books written by professionals on their profession make for interesting reading when it comes to reconstructing the history of a profession, as they reveal their representations and practices (Boltanski and Chiapello, 2005). In the case of property development in France, three books were written between 1975 and 2014 by real estate professionals who wished to describe their activity to the public as well as to students in the construction industry.⁴ These three books, published about 20 years apart, enabled us to trace the evolution of the profession and more specifically the relationship between the profession and financial calculation techniques.

At the same time, we held some 20 semi-structured interviews with executives and operations managers working or having worked in French real estate development companies. We have taken care here to vary the profile of the companies on the panel (see Box 1) in order to obtain a cross-sectional view of the profession. The question was whether these regional directors, project managers or development managers applied financial frameworks to the implementation of real estate projects.

With regard to the notion of 'colonization' mentioned above, the objective of the research was to grasp the degree to which the financialization of the real estate industry occurred

Box 1. Interview corpus.

Twenty semi-structured interviews among 16 companies were conducted between 2016 and 2018 as part of this survey (see Table 1). The corpus was constituted by varying the hierarchical level of respondents, so members of the executive management, middle managers and operational employees would all be interviewed. In addition, the aim was to vary the type of business sampled. The French real estate industry has diversified organizations that can be classified into different typologies (Pollard, 2018; Romainville, 2017). Some are publicly-traded companies, some are non-listed and others are subsidiaries of financial groups. The objective was then to integrate these different cases into the panel, identifying them according to the business size classification.

Table 1. List of interviews conducted and profile of respondents.

Interviews	Type of companies	Functions
1	Large	Executive Director
2	Small/medium	Director of Promotion
3	Large	Former Regional Assistant Director
4	Large	Regional Assistant Director
5	Large	Regional Director
6	Large	Regional Director
7	Large	Development Manager
8	Large	Development Manager
9	Large	Regional Assistant Director
10	Large	Former Regional Assistant Director
11	Small/medium	Director of Asset Management
12	Small/medium	Housing Property Manager
13	Large	Deputy Director, Promotion Division
14	Small/medium	Regional Director
15	Small/medium	Regional Director
16	Small/medium	Regional branch manager
17	Large	Development Director
18	Small/medium	Secretary General
19	Large	Programme Director
20	Large	Development Director

through the transformation of real estate agents' professional practices. Hence, we tested the hypothesis of a gradual integration of financial calculation tools into their activity, as identified in the real estate appraisal sector (Crosby and Henneberry, 2016). Our research also sought to test a possible change in the academic profiles of the senior and middle managers of these companies, as a result of the will to strengthen financial skills, even if it seems not be the main tendency in large French companies (François and Lemercier, 2017).

Real estate developers have always used financial calculation tools

The first of the handbooks, *Les promoteurs*, is contemporary with seminal academic work on the real estate industry (Combes and Latapie, 1973; Topalov, 1970) and provides unique insight into this emerging world. Written from the perspective of one of the first companies

in the sector, it affords a view of the place that financial calculations took from the outset in the development of this new profession. The second book, *La promotion immobilière*, published a little over 20 years later by two executives who had held managerial positions in France's largest real estate companies, highlights the considerable stability of the presentation of real estate agents' profession, following on from that described in the first book. Surprisingly, no fears were reported of upheaval in the profession due to the massive arrival of North American investment funds on the French market. It was as if the financialization brought in by these new players (which would soon be the subject of numerous analyses) had no real impact on the French property development business at that time. The third book, *Real Estate Management*, published in 2014 and edited by a professional who was also deeply involved in university education, gave the initial impression that a revolution had taken place in the sector. This textbook was prescribed reading for a professional master's degree in 'newly financialized' real estate management. It devotes several chapters to financial calculation techniques. However, at the time, it merely expanded on instruments already presented in the first books, while retaining the chapters related to the non-financial aspects of the business. The switchover was perceived more as a reflection of changes in the industry. Thus, the environment in which real estate developers operated was said to have changed more than the developers themselves.

Financial calculation at the heart of the genesis of French real estate development

In 1975, Seuil Editions published a book entitled *Les promoteurs* ('Property Developers'), written by Jean-François Dhuys. This was actually the pen name of Jean-François Leroux, a member of the board of directors of the real estate subsidiary of the Banque de Paris et des Pays-Bas (later Paribas), known as the Société Auxiliaire pour la Construction Immobilière (SACI). Leroux would later become the director of another subsidiary of the banking group, dedicated to high-end housing, COGEDIM. Leroux therefore worked for one of the first two banks involved in the new banking system that allowed private actors to engage in the production of housing. The other major player at the time was Immobilière Construction de Paris (ICP), a banking company entirely devoted to real estate (Combes and Latapie, 1973).

From his 'inside observer's' position, and speaking in his own name, this IEP de Paris⁵ graduate recruited by the bank 15 years earlier pointed to a growing phenomenon that urban social science hardly touched on, and in which he was closely involved: the weight of tacit social hierarchies and corporatist regulations in the rapid growth of real estate development.⁶ The book is rich sociologically: it informs us, often implicitly, of the collusion behind the alliances between senior corporate executives and public authorities. In this framework, it offers a valuable point of view on the place that the calculation of the 'financial profitability' of real estate transactions took in the genesis of the new business of property development.

In its first chapter, devoted to 'real estate profits', Leroux explained the complex and crucial difference between the 'margin' and the 'profitability' of real estate operations based on the Internal Rate of Return (IRR) calculations (Dhuys, 1975: 23). Although this distinction has been made by political economy since the early 20th century (Parker, 1968), it is now at the heart of university textbooks for future property developers. But at

the time it was something very new, as Jean-François Leroux explained in a recent interview:

Few people understand the secret process that motivates real estate choices. Many property developers worked without knowing what they were doing. That's the surprising paradox of this profession! I gradually discovered that the financial scheme of a real estate operation was not known by the agent. This is the first chapter of my book, the structure of a real estate transaction. And I'm sorry to say, but that was a revelation for property developers themselves! (Interview 1)

The statement seems provocative. How could the financial plan of a real estate transaction have remained unfamiliar to the many entrepreneurs who embarked in the 1970s on this new activity of 'property development' that promised astronomical gains? A clear division of roles between bankers and property developers, linked to the urgency for banks to reinvest in national markets after the end of the French colonies (Dhuys, 1975), seems to provide the most convincing explanation.

Furthermore, these banks that were investing in real estate development moved rapidly to organize the necessary links between their traditional activities and the world of construction, which was new to them. They developed a scheme that was not analysed at the time yet was so significant that it should have become a written rule: every major French bank acquired a real estate subsidiary within a few months (Effosse, 2013: 129), and appointed a *Ponts et Chaussées* engineer at its head.⁷ Jean-François Leroux explained:

So, they decided to do real estate. But how does one do real estate? In a banker's mind, construction plays the lead role. So, he thinks: '*Ponts et Chaussées* engineer'. At that time, all the major bankers set *Ponts et Chaussées* engineers at the head of their real estate departments. Now, *Ponts et Chaussées* engineers are very capable of taking an interest in financing, even if it's not their core competency. (Interview 1)

The methods for calculating the dimensions of physical structures or buildings were not the same as those used to measure financial profitability. But an engineer's training *de facto* allowed this link between the financial and engineering worlds that had been driving the development of the real estate industry for years, and the construction world in which this financial world did not wish to immerse itself too directly.⁸ The configuration set up within the *Banque de Paris et des Pays-Bas* was emblematic of this phenomenon. Jean-François Leroux recalled:

My boss had been an actuary: he was an exception. And it was thanks to him that I understood! He never wanted to write, I took care of it! So, the head of *Paribas*' real estate department was René Durand, a *Ponts* engineer. It was he who created a subsidiary, the *SACI*, at the head of which he put a certain Francis Maurice, who had to be a *Sciences Po* or law school graduate ... And Maurice created a *SEM* [*Société d'économie mixte*] department at the head of which he put a '*Sciences Po*' [graduate], and a private real estate department at the head of which he put my boss, an actuary. ... And as I was in a sense his 'pet', he confided in me a lot. (Interview 1)

We can understand the profound dynamics of the early years of property development, which were directly linked to the mobilization of banks towards a real estate industry that

suddenly appeared as a possible and reassuring investment opportunity for capital. These investments were intended, at least in the short term, to flow back in from the colonies – a form of capital switching process well documented in recent contexts (Kutz, 2016). In this context, both the role played by calculations of the financial profitability of real estate operations and the valuable resource of Ponts et Chaussées engineers at the interface between the world of construction and that of numbers – in this case financial – became obvious.

This finding reflects other research in economic sociology, such as the development of life insurance, which cannot be correlated exclusively with the importance of the ‘probabilistic revolution’ but also has to be placed in the complex ‘cultural puzzle’ that societies constitute (Zelizer, 1983). With regard to our specific focus on financialization, it is an opportunity to stress the importance of always looking at the processes of ‘socialization’ in relation to financial tools, as Marx already invited us to do in his third volume of *Capital* when he analysed late 19th-century financial reforms (Durand, 2014).

The stability of the property developer’s activity despite the turn of the 1990s

In 2001, *La Promotion immobilière: Construire pour autrui* by Avril and Roth was published by Les Presses des Ponts et Chaussées. The authors dedicated their work to Michel Lefebvre, who had just orchestrated the merger of several major French real estate companies to form the Compagnie générale d’immobilier et de services (CGIS).⁹ This new company was to become independent a few months later under the name Nexity, which is currently the leading French property developer. Both authors were real estate professionals who had worked under or alongside Lefebvre in the management teams of the largest French property developers, in particular Cogedim, linked to the Paribas group, and George V Promotion, the real estate subsidiary of the luxury leader LVMH, which had been integrated into CGIS.

The first finding that emerges from this book concerns the modest place granted to the notion of financial profitability of operations, starting with Leroux. While the first half of the book is devoted to describing the ‘real estate development operation’, it is not until the end of this presentation that mention is made of the ‘result of the operation: margin and annual return on capital invested’ (Avril and Roth, 2001: 110). This distinction between margin and profitability, which is the basis of the link between French property development and the financial sector, is covered in only a few lines. A graph, almost identical to the one produced by Leroux 20 years earlier, supports this very brief mention of the financial stakes underlying property development (Avril and Roth, 2001: 115). But as if to fuel the mystery of property development that led Leroux to his provocative stance, the authors gave the impression that they were not interested in the theoretical and financial foundations of their activity.

The second part of the book is intended to offer a more comprehensive point of view on real estate activity and business, and of their evolution, but very little is said about possible trends regarding the process of financialization of the industry (the term was not yet used at the time of writing, but North American funds had already entered the French real estate market). In a section devoted to office property in which ‘speculative development’ (where the future tenants are not known) is presented as the ‘original’ business (Avril and Roth,

2001: 169–176), the authors clearly underscore the dual marketing to which the property developer has to adapt in a sense: that which concerns future users, and that which concerns potential investors (Avril and Roth, 2001: 177). But the growing importance of investors in property development is not mentioned.

Likewise, when the ‘new real estate products’, often presented as promising niches for property development (e.g. serviced residences for target audiences such as students, the elderly or holidaymakers) are discussed further on, the authors stress that ‘these new products are generally for rental use’, reiterating the fact that the satisfaction of users’ expectations has to be complemented by that of investors’ expectations (Avril and Roth, 2001: 181). But here again, no mention is made about the latter’s demands, nor about the evolution of the format of the accounts to be presented to them. Only one sentence mentions that the investor ‘requires attractive, legible and above all reliable and sustainable legal, financial and tax arrangements’ (Avril and Roth, 2001).

In this book, there was thus nothing to suggest that a change in the property developer’s profession was to follow the arrival, five years earlier, of North American investors on the French market, nor even that such a change was imminent. Everything happened as if, with the exception of moments of crisis linked to the economic context, the French property development professionals of the 1990s were doing business along the lines that their elders had drawn 30 years earlier. As one of the authors who we interviewed pointed out:

I’ll tell you: ‘building means financing yourself!’ And nothing else. This is as true in the public as in the private [sector], it was as true in the time of the Pharaohs as it is in ours. Wherever you go, there’s no construction without funds. Everyone needs financing. (Interview 2)

The financialization of the property developer’s environment

The situation appears to have changed with the publication of the edited volume in 2014 by Denis Burckel, professor and head of the Master’s degree at Paris-Dauphine University (Burckel, 2014). Initially, very real change seems to have taken place in the world of real estate. Like the authors of the previous works analysed, Burckel worked for several years for a major French property developer, but most of his career was spent in teaching and research. By contrast, the majority of the authors who contributed chapters to the book were working in real estate or financing.

Aside from this particular contextual dimension, the book itself is very different from the two previous ones mentioned above. From the outset, ‘financialization and professionalization’ are shown to have characterized the developments that took place during the 1990s (Burckel, 2014: 19). The book associates these processes with the ‘arrival of American opportunist funds from 1995’ and the financial logic on which they were based, evidenced through widespread use of IRR and NPV calculations.

The amount invested by institutional investors to acquire real estate in France is reported to have risen from 5 billion euros in 1990 to 10 billion euros in 2000 and then 40 billion in 2018. Residential real estate accounted for a minority share of these investments, but nevertheless increased from 1 to 4 billion euros between 2010 and 2018.¹⁰

In the second chapter, the ‘new players in real estate financing’ are presented as central and as having undergone specific subsequent developments (Burckel, 2014: 43), just as the ‘real estate diagnosticians’, ‘certifying bodies’ or ‘real estate valuation experts’ are presented

in the ‘accompanying persons’ category (Burckel, 2014: 44), the list of which had lengthened considerably in the preceding years. Similarly, the numerous *funds* and *asset managers* mentioned at the outset are presented more comprehensively (Burckel, 2014: 51), and in the third chapter, on products, several pages are devoted to the new building products constituted by ‘health facilities’ (Burckel, 2014: 78).

Chapters 6 and 7, on the traditional property development professions (the search for land and the setting up of real estate transactions), also reflect the changes linked to the growing importance of financial investors in the industry. The strategy of association with an investor is thus given prominence (Burckel, 2014: 139). Recommended as a strategy to be implemented as early as possible in the property development process, accessing equity investment is presented as having many advantages, including making the project credible to public authorities and reducing the risks associated with commercialization. This financial sensitivity is explained by the profile of the main editor of these two chapters, one of the directors of the French branch of the Hines group, who presented himself as a ‘world leader in real estate development and investment’ (Hines site). The wording amply reflects the changes underway: real estate developers had also specialized in ‘investment’.

However, aside from this trend, the description of the profession found in these two chapters is not fundamentally different to those in previous textbooks. When purchasing land, the challenge for a developer was to ‘assess its margin in relation to its risk’ (Burckel, 2014: 156). ‘Margin’ and ‘risk’ were therefore still preferred to the notion of internal profitability at the heart of financial models. Likewise, when the preliminary draft project (APS – *avant-projet sommaire*) was adopted where the investor’s agreement was again required (in the case of project management assistance), the dossier was prepared with a view to reassuring bankers about the control of risks of various kinds. But here again, the calculation of the internal profitability of the operation is not suggested.

It is not until the last part of the book that the notion of profitability is fully addressed. And indeed, this last part, entitled ‘Real estate, a financial asset’, is entirely devoted to this idea of real estate as an investment outlet, and its uses. Consisting of four chapters, it alone makes up nearly a quarter of the book. The first of these four chapters, dedicated to ‘Real estate as an investment vehicle’ (Burckel, 2014: 305), explains precisely the tools of financial calculation at the heart of the financial governance of companies taught in all the major business schools, based on the famous textbook (Brealey et al., 2007). The following chapter, devoted to ‘The holding of real estate assets’, presents the different legal statutes of French companies that allow for the valuation of real estate assets, from the old SCPIs to the most recent OPCIs created by decree in 2005, as well as a host of statutes such as those of SIICs (Burckel, 2014: 329). The next one presents the banks’ point of view on real estate financing, and the last one deals with purely financial techniques known as ‘structured financing’. Overall, this fourth part is a lengthy presentation of the logics of the new financialized players in the real estate industry. But the property developers’ point of view seems to be out of phase with this part of the book.

The book as a whole suggests more a transformation of the real estate industry in general than a transformation of property developers’ profession as such. A whole stream of new players linked to the financial products sector are shown to have emerged around real estate development companies, without it being possible to grasp the signs of a substantial change in the management methods of companies in the industry.

In sum, it appears that the turn of the 1990s, often presented as a watershed for the real estate industry, did not trigger effective change in real estate development companies in

France. Due to their original proximity to the banking sector, the top executives of these companies, as financial natives, were accustomed early on to working with financial calculation instruments (e.g. IRR), which had systematically been used in the presentation of their activity since the 1970s.

Finally, it is significant that textbooks written by professionals constitute a particular form of investigative material that reflects above all an official discourse. The understanding of the concrete realities of real estate companies remains partial if we limit ourselves to this material, for the textbooks were written by senior executives who held positions in the largest of these companies in France. What about the realities experienced by employees at the lower levels? Did the context change the day-to-day aspects of their professional activity? We focus on these questions in the remainder of the article.

The work of middle management far away from financial tools

While the directors of real estate companies adopted financial reasoning and instruments from the outset, it was to be expected that the principle of ‘colonization’ would be evidenced in the gradual spread of financial reasoning to the lower levels of real estate organizations (see Baud and Chiapello, 2015). Real estate developers, in particular, increasingly come into contact with financial investors as shareholders in their firms (Romainville, 2017; Shimbo, 2019) or as representatives of real estate investment trusts (called ‘foncières’ in French). Our question was whether the regional directors, project managers or development managers applied a financial framework to the implementation of real estate projects.

Again, the research has yielded unexpected findings. It appears that the daily economic activity of the most operational level of real estate companies is far removed from the financial rationalities presented in the manuals. The calculation of the ‘Internal rate of return’ by the hierarchy is not relayed to the operational level. On the other hand, and this is a historical fact in real estate, all managers in charge of operations calculate margins. Seen from a distance, these are simply financial calculations. However, the reality is much more subtle. The calculation of a margin is an accountant’s calculation based on the sum of past income and expenditure. This orientation explains the traditional opposition between accountants and financiers: the former analyses the past, while the latter estimates the future – an opposition that would make the use of the margin calculation by property developers unconventional, according to Chiapello’s (2015) framework of analysis. Yet, this practice has been widespread in the profession from the outset. It is a particular situation that completes the understanding of property developers as ‘financial natives’: since they do not handle financial tools, they have developed a ‘financialized’ use of the margin calculation accounting tool. This heterodoxy also explains why the employees whom we interviewed categorically refused the idea of a financialization of their profession, for the very ‘political’ dimension of their activity made it difficult to establish professional practices guided by finance. However, because they regularly had to report on their activity to the general management in financial terms, all respondents were familiar with the financial language and understood how the related formulae worked. They also had to translate into financial terms the product of an activity structured by rationalities far removed from the principles of finance, especially when they met the top management in the ‘investment committee’.

Heterodox accounting, next to financialized reasoning

The question we are asking is: what forms of economic rationality underlie the operational levels of real estate companies to drive their projects and generate value. To answer this question, it should be noted that a real estate development project involves a set of financial flows that property developers seek to organize.

To conduct their operations, property developers must have a certain amount of capital available. In most cases, they first invest their own funds, particularly for the purchase of land, which takes place very early in the real estate transaction, possibly with additional funds made available by partner investors. This first investment usually covers the initial expenses of the project (research, planning and purchase of land). Then, very quickly, expenses suddenly increase (implementation of the preliminary project, architects' fees, construction companies, etc.); yet, the project is sufficiently formalized for it to be presented to banking partners. The equity capital is then supplemented by a bank loan, which is usually used to cover the majority of the costs of the operation, traditionally around 80% of the total costs.

To obtain this loan, real estate companies must provide guarantees as to the economic viability of the project. They must be able to demonstrate that the construction will meet a demand and that incoming cash flows will be generated. To this end, the project managers will work on a 'pre-commercialization' phase. This consists in selling in advance the premises that will soon be built, on the basis of a 'VEFA' (*Vente en l'État Futur d'Achèvement* – sale in the future state of completion) contract.¹¹ Our interviewees mentioned a standard consisting in selling between 30% and 40% of the surface area before starting the work at the construction site. Pre-sales reduce the risk for bankers and provides property developers with additional funds to implement the project.

Significantly, this recourse to bank loans is systematic insofar as debt provides an increase in the returns generated by the developer. Property developers call this the 'leverage effect', which is an underlying principle of their activity. The mass of funds invested allows rapid execution of the operation, thus ensuring early returns on investments and the growth of the profitability of the invested funds (which takes into account their short immobilization). From this point of view, the bank charges associated with borrowing are largely offset by the speed with which the first cash inflows can be made, owing to the rapid progress of the work.

At the operational level of property development companies, it is not calculations of financial profitability that occupy employees' time. They base their activity on another accounting tool: the 'provisional balance sheet'. This is an income statement that shows the expenses of the project against the income it is expected to generate. Through this instrument, they ensure at each stage that the project will not only achieve a balanced budget, but that it will also provide a 'margin for promotion'. It is this margin (difference between costs and revenues reduced by bank charges related to the granting of the loan) that generates property developers' profits, and is therefore the focus of their agents' attention.

In everyday practice, the margin is the cornerstone of reasoning. It is the benchmark against which the economic success of the project will be assessed and against which negotiations with partners will be conducted. As one of our interviewees explained:

At the stage of a project that is beginning to take a certain turn, that is, when we are evaluating ex ante the feasibility with a structure, we draw up a development assessment plan. This is a

financial balance sheet where there are a certain number of ingredients that we have and that will be: the price we have to pay for the acquisition of the land, the fees of the broker if there is one, the cost of the construction with all the parameters like masonry, and an exit selling price. This assessment is not yet very detailed, but it will give us a financial vision of the operation. From the outset, or quite early in the prospecting process, development assessments are drawn up, put in black and white, because we know that we will work and wish to work only on operations that are likely to bring us turnover and profits. (Interview 18)

Although it refers to ‘financial’ aspects, the profit margin does not reveal a ‘financialized’ reasoning that takes into account time and incorporates methods for discounting the future value. When asked about other existing methods of capturing value, including those of investors, respondents were very vague. According to them, the financial formulae are not applicable to their business. One of them commented:

If we tell the financial investor: ‘you’re going to put in 100 and in 2 years you’re going to get 150 back’, he says to himself that over 2 years he gets 50, so a 50% return over 2 years, that’s 22 and a half every year. It’s a good return on the money invested. But then, if we look more closely, if I’m a crook, I can promise him that he’ll get 50 when I know we’re going to have this problem, that problem and big risks, and that in the end we’ll have 110 rather than 150. So that means that whoever provides me with the money has to have the ability to understand my job. A purely financial actor is going to get screwed. I have never seen spreadsheets that allow me to say that it will be good or not. It’s experience that counts the most. (Interview 5)

The political dimension of the profession

How can we account for real estate agents’ mistrust of financial formulae at the operational level when, as we have seen, these formulae are presented by textbooks and managers as core elements of the business?

To understand this, we need to take a closer look at the content of the tasks carried out daily by these operational actors. Economic calculation accounts for only a minor part of their work. Before being able to draw up balance sheets and produce accounting estimates, real estate agents must initiate projects, and to be able to do so, they have to ‘control’ a plot of land. ‘Controlling’ means having building plots that can be bought in the short term, that are located in areas that are popular with buyers and for which building permits can be obtained quickly. In practice, the convergence of these criteria is relatively rare.

Land therefore appears to be the great uncertainty of the real estate business, much more so than access to capital. It is a scarce resource, as one respondent described it:

It is important to find the land and then know for which type of clients we’ll develop it. So: on what? What are the clients’ needs? What are the expectations? Based on this, we’ll define the type of accommodation that we provide. And if we do our job well, by the time the building’s finished, we’ll have sold everything. (Interview 8)

In this land management business, relations with local authorities are essential. City councils have the resources to facilitate or block projects; they can make parcels of land

available and are above all the ones who issue building permits. Therefore, city councils are at least as important as investors or bankers in the property development process:

I always say that in real estate there are two things that are important: land and territory. When I say territory, I mean the mayor because he or she is the one in charge. So when I talk about the mayor, I mean the city council, this is who's in charge of the decision. (Interview 17)

Moreover, the local authorities are aware of the strategic position they occupy in urban construction. They use it to be involved in the project definition phases. Most companies have also increased their workforce by developing departments responsible for nurturing this political relationship:

Our goal is to foster relations with local authorities, in order to learn about the political project. We have a management team that manages these relations between the company and the projects of local councillors. So, the first 'client' is the city council. Then, the clients who provide our income are those who buy or rent homes, offices or business premises. (Interview 6)

This highly 'political' component of property development limits the possibility of using financial formulae to support decision-making processes. Before even drawing up an optimized investment plan, it is necessary to be able to implement the project, and for this purpose, the property developer must satisfy certain local political requirements. On this antagonism between financial reasoning and local authorities' political game, one of our respondents commented:

This is not a business where purely financial criteria will guide us; the criteria are operational. . . The shareholder puts in 10, and at the end of the operation, 18 months later, has a rate of return on invested funds that's 30 or 40 per cent. But if we approach the operation only in those terms, we're going to get it wrong. We can't approach it only from the financial angle. (Interview 5)

More broadly, all our respondents refused the term 'financialization' to characterize their profession, for these same reasons:

The term 'financialization of real estate: I wouldn't use it (Interview 7).

It must be understood that property developers have nothing to do with financialization (Interview 4).

When financial calculation meets accounting reasoning: The 'investment committee'

How does the conjunction of different logics play out within these companies, that is, on the one hand, financial reasoning legitimized by top management and, on the other, concrete economic practices that are barely financialized? Our field research shows that these two logics meet only infrequently, at 'investment committee' meetings. The various regional directors, who manage the teams of employees running the projects, meet every two

months at the company's head office to discuss with the general management the future projects they intend to implement. These are the 'investment committees' where decisions are made on the company's financial commitment to new projects. Each regional director outlines a series of options, and the general management validates (or vetoes) the implementation of these programmes by allocating funds to them (or not).

This is when the daily practice of the profession is faced with questions of financial optimization. Middle managers accustomed to reasoning with the notion of 'margins' are suddenly confronted with top management's rationality and calculation formulae. One of our respondents who had spent his entire career in real estate companies as a regional director mentioned this difference in calculation methods:

The property developer can resonate only in terms of a margin. There is also the IRR: this is the margin expressed as the equity capital invested in the operation, correlated with the immobilization period of this equity capital. This is called IRR. My shareholder, my CEO, has a range of possible choices between the IRR that I offer him with Vinci Immobilier, the IRR that Vinci Airport offers him with airport concessions, the IRR that Vinci Autoroutes offers him. . . And from this point of view, I don't have the impression that things have changed in the 30 years I've been doing this job. (Interview 4)

Although they do not use financial formulae in their daily activities, employees at the intermediate and lower levels are familiar with the ratios and their meaning. Our respondents displayed a significant ability both to comprehend financial language and to criticize its relevance to the conduct of the business. They reaffirm a vision of the business that consists in producing value through a margin. The IRR then appears rather as a discursive tactic with which it is advisable to comply without it changing the content of the practices:

It's true that IRR are put forward more or less in the investment committees. But I think that what is being sought is the profit margin, because short-term investments don't yield anything, even if money-market SICAVs. . . So, someone who has cash takes any IRR, especially a 25% development project IRR! (Interview 10)

Financial formulae thus appear to be economic instruments that are both omnipresent in the discourse and marginal in concrete practices. Employees speak in financial terms, for they are aware that their performance will be interpreted by management and shareholders according to financial rationality. But they also know that this approach is only one among others characterizing their profession. Since this profession mainly concerns the complex reality of territories and their political stakes, financialized rationalities do not fully enter into such analytical frameworks.

The investment committees operate as social arenas in which middle managers must translate into financial terms the outcome of an activity structured by rationalities far removed from the principles of finance. They are thus led to speak of 'margins' as an 'IRR':

I don't think in terms of an IRR in the sense that I don't calculate it. . . but our general manager does. . . For a property developer who thinks in terms of IRR, it would be necessary to generate income, so to find buyers and start the work and put in the calls for funds. So, I wouldn't be talking about IRR, but I would have it in mind. (Interview 9)

Conclusion: Working with financial actors and local elites

This research on the transformation of property developers' practices provides contrasting results. From an 'internalist' perspective on the process, financialization has been understood as a 'colonization' of work situations by financial instruments and reasoning, the most important of which are discounted cash flows (DCF) and net present value (NPV) calculations (Boussard, 2017; Chiapello, 2015). On the basis of this definition, a socio-historical analysis of the real estate development business in France has shown that financial tools (IRR calculations) have been present in companies for as long as the industry has existed. In fact, IRR calculations are considered as a kind of primitive form of the current DCF methods (Parker, 1968). So, it is possible to consider property developers as financial natives, given the strong presence of banks during the creation of the real estate development sector.

This original link was, however, restricted to the top managers of these companies. Since those early days and still today, real estate companies have been managed mainly by state-authorized civil engineers with strong competencies in mathematical finance. From this point of view, the French case echoes the very different case of the United States in several ways. One crucial common point emerges, in particular: the weight of financial actors in the growth of the property development industry in both countries (Rabinowitz, 1980; Weiss, 1989). In the United States this influence of financial actors has however taken other forms, in particular through the development of a system of mortgage loans that contributed strongly to the growth of the industry and the emergence of large regional planning and development firms.

The second result of our research concerns the use today of calculation tools by operational and middle managers of real estate companies. Their daily practices appear to be removed from the financial calculation tools presented in the textbooks and those found in company directors' discourse ('IRR' or 'NPV'). In fact, they still use, as they always have, the margin calculation, from what we consider to be a heterodox perspective of looking at the future. We see it as heterodox because margin calculation is an accounting tool, shaped to be used at the end of an operation, on the basis of real expenses and income. From this point of view – and even if today the operational level must regularly translate the content of its activity into financial terms when reporting to company directors who reason with financial formulae – we can assert that their professional practices have not been colonized further by financial instruments. By saying 'not ... further', we want to insist on the fact that even if the middle management level is not as financialized as the top management of property developers, it can likewise be analysed as partly financialized and also from the outset. Thus, 'financial natives' fit, in different ways, with the entire property development profession.

Finally, what does this historical review of the property development profession tell us about the power relations that structure contemporary urban governance? On the one hand, the fact that the operational level stayed away from colonization of financial calculations encourages us to believe that property developers are not simply local intermediaries for international financial actors. They do have a degree of autonomy. Their activity is that of an entrepreneur who connects different social spheres and must therefore combine different forms of rationality. The case of French property developers, analysed as 'financial natives', shows finally that institutional investors and asset managers have not become the

undisputed masters of urban construction since the 1990s. They work with property developers and local elites in the struggle to share profits and rents from real estate development.

On the other hand, especially in urban contexts at the core of global capital flows, such as Chicago, the financialization of urban policies – materialized by over-building – is largely connected to the presence of huge local property developers and financial intermediaries, and to the conversion of local public elites to very liberal fiscal policies (Weber, 2015). Hence, the notion of ‘financial natives’ could offer an element of explanation for the shift from real estate development to finance, witnessed in Chicago in the 2000s. It was the very nature of the real estate development activity that prepared this shift. This suggests that the financialization phenomena in Chicago could, in the more or less short term, emerge in many other urban contexts where property development has grown.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The author(s) received financial support for the research from grant 2016/15739-0, São Paulo Research Foundation (FAPESP), and from the Collegium de Lyon (Université de Lyon) and the Labex Urban Futures (Université Paris-Est).

ORCID iD

Lucia Shimbo  <https://orcid.org/0000-0002-1097-8091>

Notes

1. Previous drafts of this paper were presented at the Seminar ‘The frontiers of urban financialization’, organized at the Collegium de Lyon, Université de Lyon, France, May 2019. We are indebted to the participants at this gathering for very helpful comments. We express our thanks especially to Rachel Weber for the ideas and incentives she offered after reading an earlier version of this text, Antoine Guironnet also for his useful comments and suggestions and, finally, our reviewers for their challenging critics.
2. The internal rate of return (IRR) and the notion of net present value (NPV) both lead ‘to the following maxim: “Accept investment opportunities that offer rates of return higher than your opportunity cost of capital”’. 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., 2007: 19). The NPV is calculated from the current cash flow (actual investment) added to the future cash flow using a discount rate. The IRR is defined ‘as the discount rate that makes the NPV equal to zero’. ‘About three-quarters of companies calculate the IRR; approximately the same number as those using NPV. The IRR rule is a close relative of the NPV and, when used correctly, offers the same response’ (Brealey et al., 2007: 95).

3. We are making an allusion here to the well-known expression ‘digital natives’: ‘a person who is very familiar with digital technology, computers, etc. because they have grown up with them’ (<https://dictionary.cambridge.org/fr/dictionnaire/anglais/digital-native>).
4. Leroux Dhuys J.-F., *Les promoteurs*, Seuil, 1975; Avril B. and Roth B., *La promotion immobilière : construire pour autrui*, Presses de l’Ecole Nationale des Ponts et Chaussées, 2001; Burckel D. (ed.), *Real Estate Management*, Vuibert, 2014.
5. The Institut d’Etudes Politiques (IEP) de Paris (today Sciences Po Paris) is the oldest and the most prestigious public administration school in France.
6. From the very beginning of his story, he drew in particular on the first version of Christian Topalov’s famous book, republished a few months earlier.
7. Like IEP, the Pont et Chaussées is the oldest and one of the most famous engineering schools in France.
8. Which refers to an old tradition dating back to the 19th century in France, in which ‘Corps des ponts et chaussées’ engineers played a fundamental role in the development of economic calculations (Etner, 1987).
9. CGIS is the real estate subsidiary of the huge French infrastructure services’ company called Compagnie générale des eaux, today Vivendi.
10. See: Catella consulting, *Property Market Trends: France*, March 2020, 48 p.; Cushman & Wakefield, *Marketbeat : marché du logement en France*, Octobre 2019, 17 p.
11. The VEFA is an advance sale (on plan) in which the future owner undertakes to acquire the building if it corresponds to the announced characteristics. Part of the payment is made upon signature. The rest is gradually disbursed when the project reaches certain milestones.

References

- Aalbers MB (2016) *The Financialization of Housing: A Political Economy Approach*. London and New York: Routledge.
- Avril B and Roth B (2001) *La promotion immobilière: construire pour autrui*. Paris: Presses de l’Ecole Nationale des Ponts et Chaussées.
- Ball M (1983) *Housing Policy and Economic Power*. London, New York: Methuen & Co.
- Baud C and Chiapello È (2015) Comment les firmes se financiarisent: le rôle de la réglementation et des instruments de gestion. *Revue française de sociologie* 56(3): 439–468.
- Boltanski L and Chiapello E (2005) The new spirit of capitalism, trans. G. Elliott. London and New York: Verso.
- Bourdieu P (1998) *The State Nobility: Elite Schools in the Field of Power*. Stanford: Stanford University Press.
- Bourdieu P (1987) *Choses Dites*. Paris: Minuit.
- Bruno I, Jany-Catrice F and Touchelay B (eds) (2016) *The Social Sciences of Quantification: From Politics of Large Numbers to Target-Driven Policies*. New York: Springer.
- Boussard V (ed.) (2017) *Finance at work*. London and New York: Routledge.
- Brealey RA, Myers SC and Allen F (2007) *Principles of Corporate Finance*. New York: McGraw-Hill.
- Burckel D (2014) *Management de L’immobilier*. Paris: Vuibert.
- Carruthers BG and Stinchcombe AL (1999) The social structure of liquidity: Flexibility, markets, and states. *Theory and Society* 28(3): 353–382.
- Chiapello E (2015) Financialisation of valuation. *Human Studies* 38(1): 13–35.
- Chiapello E (2018) The work of financialisation. In: Chambost I, Lenglet M and Tadjeddine Y (eds) *The Making of Finance. Perspectives from the Social Sciences*. London: New York Routledge, pp. 192–200.
- Combes D and Latapie E (1973) *L’intervention des groupes financiers français dans l’immobilier*. Paris: CSU.

- Chiapello E and Desrosières A (2006) La quantification de l'économie et la recherche en sciences sociales: paradoxes, contradictions et omissions. Le cas exemplaire de la positive accounting theory. In: Eymard-Duvernay F (ed.) *L'économie des Conventions, Méthodes et Résultats*. Paris: La Découverte, pp. 297–310.
- Comby J (1996) Le compte à rebours de l'immeuble au terrain. *Etudes foncières* (Paris) (73): 20–23.
- Corpataux J and Crevoisier O (2016) Lost in space: A critical approach to ANT and the social studies of finance. *Progress in Human Geography* 40(5): 610–628.
- Coulondre A (2017) La création de profit par les promoteurs immobiliers: Étude sur le travail entrepreneurial de qualification des biens. *Revue Française de Sociologie* 58(1): 41–69.
- Crosby N and Henneberry J (2016) Financialisation: The valuation of investment property and the urban built environment in the UK. *Urban Studies* 53(7): 1424–1441.
- Desrosières A (2003) Managing the economy. *The Cambridge history of science* 7: 553–564.
- Dhuys J-F (1975) *Les promoteurs*. Paris: Seuil.
- Durand C (2014) *Le Capital Fictif: Comment La Finance S'approprie Notre Avenir*. Amsterdam: Les Prairies Ordinaires.
- Effosse S (2013) *L'invention Du Logement Aidé En France: L'immobilier Au Temps Des Trente Glorieuses*. Paris: Institut de la Gestion Publique et du Développement Économique.
- Erturk I, Froud J, Johal S, et al. (2007) The democratization of finance? Promises, outcomes and conditions. *Review of International Political Economy* 14(4): 553–575.
- Etner F (1987) *Histoire Du Calcul Économique En France*. Paris: Economica.
- Fainstein SS (2001) *The City Builders: Property Development in New York and London, 1980–2000*. Revised edition. Lawrence: University Press of Kansas.
- François P and Lemerrier C (2017) The second financialization in France, or how executives and directors with unchanged financial careers promoted a new conception of control. In: Boussard V (ed.) *Finance at Work*. London and New York: Routledge, pp. 142–155.
- Granelle J-J (1970) *Espace Urbain et Prix du Sol*. Paris: Sirey.
- Halbert L and Attuyer K (2016) Introduction: The financialisation of urban production: Conditions, mediations and transformations. *Urban Studies* 53(7): 1347–1361.
- Harvey D (2006) *The Limits to Capital*. New York: Verso.
- Houdeville L (1969) *Pour Une Civilisation de l'habitat. Habitat et Humanisme*. Paris: Editions ouvrières.
- Kutz W (2016) The Eurozone crisis and emerging-market expansion: Capital switching and the uneven geographies of Spanish urbanization. *International Journal of Urban and Regional Research* 40(6): 1075–1093.
- Le Galès P (1995) Du gouvernement des villes à la gouvernance urbaine. *Revue Française de Science Politique* 45(1): 57–95.
- Lescure M (1982) *Les Banques, l'Etat et Le Marché Immobilier En France à l'époque Contemporaine, 1820–1940*. Paris: Ecole des Hautes Études en Sciences Sociales.
- Lipietz A (1971) Circulation du Capital et problème foncier dans la production du cadre bâti. Paris: Ecole Nationale des Ponts et Chaussées.
- Lorrain D (2011) La main discrète. *Revue Française de Science Politique* 61(6): 1097–1122.
- Nappi-Choulet I (2013) La financiarisation du marché immobilier français: De la crise des années 1990 à la crise des subprimes de 2008. *Revue D'économie Financière* 2: 189–206.
- Nappi-Choulet I, Missonier-Piera F and Cancel M (2009) Value creation and the impact of corporate real estate assets: An empirical investigation with French listed companies. *Journal of Corporate Real Estate* 11(2): 78–90.
- Parker RH (1968) Discounted cash flow in historical perspective. *Journal of Accounting Research* 58–71.
- Pereira A (2017) Financialization of housing in Brazil: New frontiers. *International Journal of Urban and Regional Research* 41(4): 604–622.
- Power M (1997) *The Audit Society. Rituals of Verification*. Oxford: Oxford University Press.

- Rabinowitz A (1980) *The Real Estate Gamble: Lessons from 50 Years of Boom and Bust*. New York: AMACOM.
- Romainville A (2017) The financialization of housing production in Brussels. *International Journal of Urban and Regional Research* 41(4): 623–641.
- Sanfelici D and Halbert L (2015) Financial markets, developers and the geographies of housing in Brazil: A supply-side account. *Urban Studies* 53(7): 1465–1485.
- Shimbo L (2019) An unprecedented alignment: State, finance, construction and housing production in Brazil since the 2000s. *International Journal of Housing Policy* 19(2): 337–353.
- Streeck W (2014) *Buying Time: The Delayed Crisis of Democratic Capitalism*. New York: Verso Books.
- Supiot A (2015) *La Gouvernance Par Les Nombres. Cours Au Collège de France (2012–2014)*. Paris: Fayard.
- Theurillat T (2011) Negotiated Cities: Between Financialization and Sustainability. *Géographie, économie, société* 13(3): 225–254.
- Topalov C (1970) *Les Promoteurs Immobiliers: Essai D'analyse Sociologique D'un Système D'acteurs Économiques: Année 1970*. Paris: Centre de Sociologie Urbaine.
- Van der Zwan N (2014) Making sense of financialization. *Socio-Economic Review* 12(1): 99–129.
- Weber R (2010) Selling city futures: The financialization of urban redevelopment policy. *Economic Geography* 86(3): 251–274.
- Weber R (2015) *From Boom to Bubble: How Finance Built the New Chicago*. Chicago: University of Chicago Press.
- Zelizer VA (1983) *Morals and Markets: The Development of Life Insurance in the United States*. New Brunswick, USA: Transaction Books.