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SECURITIZATION OF HOUSING AND FINANCIALIZATION OF THE CITY IN BRAZIL

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ABSTRACT:

Abstract

With the promulgation of the Real Estate Finance System (REFS) in 1997, the sociotechnical mechanisms needed to develop real estate securitization in Brazil started to be created, particularly the Certificates of Real Estate Receivables (RERCs). Their use, dissemination, and main agents are analyzed in this text, searching for a deeper understanding of the connections between real estate and finance in Brazil. Thus, the objectives of this work are on the one hand to analyze the trajectory and specificities of the financialization process of housing in particular and cities in Brazil and to understand the RERCs' contribution to the expansion and intensification of housing financialization processes on the other. The analysis focuses, in a critical perspective, on two specific agents presenting their shares on the securitization market: the Caixa Econômica Federal (CEF), the largest supplier of credit for housing in Brazil, and MRV Engenharia S/A, one of the largest Brazilian construction companies and real estate developers. The transformations emerging from their actions have resulted in the creation of a unique financialization and securitization model, which involves the expansion of the process to cities of different sizes and residential properties of different values and the strong presence of the State, sharply underscoring residential real estate financialization trends and the production of urban space in Brazil.

KEYWORDS: Securitization, Financialization, Housing, Brazil.

RESUMO:

Resumo

SECURITIZAÇÃO DA HABITAÇÃO E FINANCEIRIZAÇÃO DA CIDADE NO BRASIL

A partir da promulgação do Sistema Financeiro Imobiliário (SFI), em 1997, passam a ser criados os dispositivos sociotécnicos necessários ao desenvolvimento da securitização imobiliária no Brasil, em particular, os Certificados de Recebíveis Imobiliários (CRIs), que têm seu uso, disseminação e principais agentes analisados neste texto, abrindo novos caminhos para o aprofundamento das conexões entre o imobiliário e o financeiro no Brasil. Assim, os objetivos deste trabalho são, de um lado, analisar a trajetória e especificidades do processo de financeirização da habitação, em particular, e da cidade no Brasil e, de outro, compreender como os CRIs vêm contribuindo para a ampliação e aprofundamento dos processos de financeirização da moradia. A análise, em uma perspectiva crítica, é focada em dois agentes específicos: a Caixa Econômica Federal (CEF), maior supridor de créditos para o financiamento habitacional no Brasil e a MRV Engenharia S/A, uma das maiores construtoras e incorporadoras imobiliárias brasileiras, apresentando suas participações neste mercado, o de securitização. As transformações analisadas resultam na criação de um modelo de financeirização e securitização particular a partir da expansão do processo para cidades de diferentes portes e imóveis residenciais de diferentes valores e com forte presença do Estado, sinalizando as tendências de financeirização do imobiliário residencial e da produção do espaço urbano no Brasil.

PALAVRAS-CHAVE: Securitização, Financeirização, Habitação, Brasil.

RESUMEN:

Resumen

TITULIZACIÓN DE VIVIENDA Y FINANCIAMIENTO DE LA CIUDAD EN BRASIL

Con la promulgación del Sistema Financiero Inmobiliario (SFI) en 1997, se comenzaron a crear los dispositivos socio-técnicos necesarios para el desarrollo de la titul

Con la promulgación del Sistema Financiero Inmobiliario (SFI) en 1997, se comenzaron a crear los dispositivos socio-técnicos necesarios para el desarrollo de la titulización inmobiliaria en Brasil, en particular los Certificados de Créditos Inmobiliarios (CRI), que tienen su uso, difusión y principales agentes analizados en este texto, abriendo nuevos caminos para profundizar las conexiones entre bienes raíces y finanzas en Brasil. Así, los objetivos de este trabajo son, por un lado, analizar la trayectoria y especificidades del proceso de financiarización de la vivienda, en particular, y de la ciudad en Brasil, y, por otro lado, comprender cómo los CRI han contribuyendo a la expansión y profundización de los procesos de financiarización de la vivienda. El análisis, en una perspectiva crítica, se centra en dos agentes específicos: Caixa Econômica Federal (CEF), el mayor proveedor de crédito para financiamiento de vivienda en Brasil y MRV Engenharia S / A, uno de los mayores constructores y promotores inmobiliarios brasileños, presentando su participación en este mercado, el mercado de titulaciones. Las transformaciones analizadas dan como resultado la creación de un modelo particular de financiarización y titulización a partir de la expansión del proceso a ciudades de diferente tamaño y propiedades residenciales de diferente valor y con fuerte presencia del Estado, señalando las tendencias de financiarización de los bienes inmuebles residenciales. la propiedad inmobiliaria y la producción del espacio urbano en Brasil.

PALABRAS CLAVE: Titulización, Financiarización, Vivienda, Brasil.

INTRODUCTION

Even though the legal framework permitting the creation of real estate securitization companies and introducing securitization instruments in Brazil was approved more than twenty years ago, the volume of financial resources raised and leveraged in this market remains quantitatively small.

However, its progressive adoption and generalization, the gradual approximation between financial sources for production and consumption and the capital market, and its extension to residential properties and cities that go far beyond the metropolises and big urban areas indicate ongoing qualitative changes.

Thus, this article has a twofold central objective. On the one hand, to elaborate a critical analysis showing the empirical evidence regarding the specific trajectories of real estate financialization processes in Brazil, reviewing its foremost legal and institutional frameworks. On the other hand, to continue and expand on previous analyzes (MELAZZO, ABREU, and FERREIRA, 2020; MELAZZO and ABREU, 2019, among others) concerning the securitization instrument that is a pertinent key to understand the diffusion and expansion of that process on cities and housing in Brazil.

The analytical focus interprets this financialization as a historical process of capitalism with specific and differentiated characteristics in Brazil compared to other countries. it is therefore a particular case. When addressing the financialization of the city and housing, the analysis incorporates the debate on the capture and articulation of urban land rents into the more general process of contemporary capitalism, which is increasingly linked to rentism rather than production.

At first, securitization, one of the instruments of financialization, was restricted to high-unit-value real estate, focused on commercial or service properties, and concentrated in core cities in metropolitan regions, particularly São Paulo. However, the gradual entry of the Caixa Econômica Federal (CEF) profoundly changed this scenario.

Since its first issuance in 2002, the CEF has become the market leader in real estate-based securities. Today, it is already possible to evaluate some structural changes resulting from the bank's actions: securitization has spread to different-sized cities and strata of the urban network and has started to reach residential properties with lower values. Thus, the conduct of a public bank, the largest residential real estate financier

in Brazil, controls how the conditions, operating rules, and dissemination of the securitization instrument are currently organized.

The CEF's actions in the issue of securitized bonds, most of the time on individual residential properties and even housing constructed by official Housing Access Programs such as the Minha Casa Minha Vida Program (PMCMV), led the great incorporating agents and builders to use the same instrument as an early fundraising strategy to expand their production of multi-unit undertakings.

The most prominent national players in housing production, with publicly traded shares on the stock exchange, have participated in this market since the beginning of this century's second decade, issuing securities backed by their ventures. This instrument allows these agents to anticipate their profitability and is a relevant source of financing, expanding their production capacities. At the same time, a new condition on residential properties has been introduced in Brazilian cities, which also circulate in multiple scales of capital appreciation beyond local real estate markets.

Given its purposes, this article only analyses the securitization process originated from residential properties and connected to financing and producing housing, which are dominated by two crucial players in the national real estate circuit due to their respective share in the secondary market of real estate debt securities in Brazil.

The data were obtained from Brazilian Securities Commission (CVM) offers of securitization bonds available on the website using the methodological procedures described in Abreu (2019), Abreu, Melazzo and Ferreira (2020), Melazzo and Abreu (2019) and Ferreira (2021).

It should be noted that, for the analyzes carried out, emissions data were used for the period 2002 to 2019 restricted to those that are based only on real estate and housing financing contracts, listing their total and those under the direct responsibility of the CEF and MRV company, as explained below.

In addition to this introduction, this article is organized into four parts. The first is a synthetic summary of the literature, which, from a critical point of view, includes financialization and the financialization of real estate as a historical process and securitization as a socio-technical instrument required by contemporary rentier capitalism.

Given that these processes have specific contents, speeds, and instruments in each country, their trajectory in Brazil is presented, starting from the creation of the Real Estate Financing System, in 1997, until the most recent years.

The third part is divided into two sections, which examine the empirical data and information on the issuance of securities for properties financed by the CEF and the use of securitization by MRV Empreendimentos S / A., a large construction company / property developer, with national operations that is publicly traded on the stock exchange,

The conclusion restates the central arguments about the need to understand the particularities of the trajectories of these processes in each country and discusses the meanings of the expansion of the housing "securitization market" on cities' production and consumption processes and housing.

REAL ESTATE FINANCIALIZATION AND SECURITIZATION

The literature on the financialization processes of and in capitalism is broad in scope and has varied theoretical and methodological orientations. Different denominations have been coined, including "financialized accumulation regime" (Chesnais, 2002; 2005), "era of financial hegemony" (Mendez, 2018), or, more recently, "rentier economy" (Christophers, 2020), to cite a few authors.

It is not our intention to synthesize or critically assess this growing bibliography, which is dealing with different dimensions, geographic scales, sectors of the economy, and areas of social life and the role of the State, as can be found in Braga (1985; 1997; 2013), Chesnais (2002; 2005; 2016), Paulani (2010; 2012), Lapavistas (2011) and Lazzarato (2011).

Suffice it to say that in general terms, this article understands financialization as one of the central components of the macro changes of contemporary capitalism. Alongside technological revolutions and the systematic attack on the world that emerged from the post-World War II and the Bretton Woods agreement's regulations (BRAGA, 1997; CHESNAIS, 2002, 2016), it is a new pattern of capital accumulation oriented "to the pervasiveness of features of interest-bearing capital" (CHESNAIS, 2016, p. 15). It acts on new and old agents, articulating different geographical scales and increasingly broad correlations of strength and creating new operational instruments disseminated differently between countries, companies, and families.

The perspective adopted in this text starts from Marx's theories as formulated in *Capital* (2017). The accumulation of capital, or the value that gains value, is an expansive process in several ways, but mainly by accounting for a process driven by the incessant quest to incorporate diverse spheres, goods, merchandise, and spaces for expanded value production into its peculiar logic.

Such a process, which seeks money that makes more money, has historically fulfilled the logic of imposing increasingly abstract forms and content on wealth, which gains apparent autonomy from the basis of the production of goods and carries out the role of continuing the reproduction of this mode of production (BRAGA, 1997 and NATAL, 2015).

This expansive and increasingly abstract process is riddled with contradictions, trends, and countertrends. It follows its historical trajectory pursuing increasingly liquid and fluid forms and an accelerated circulation of wealth, experimenting, creating, and recreating paths and articulations that allow it to add value to capital as quickly and intensely as possible.

Thus, the pattern of contemporary capitalist accumulation centered on finance and carefully examined by Chesnais (2005; 2016) as a financialized accumulation regime, imposes its logic on production, distribution, exchange, and consumption so that increasingly "... the worldview of 'capital as property'; has permeated 'capital as function';" (CHESNAIS, 2016, p. 16) clearly indicating a new "...

systemic pattern ..." that becomes a "... General expression of contemporary ways of defining, managing and realizing wealth in capitalism" (BRAGA: 1997, p. 195, translated by the authors).

Following Braga's approach (1997), financialization is considered here as a systemic wealth generation pattern resulting in the exacerbation of the logic of the constant search for the process through which money can generate more money simultaneously in the different productive, commercial, and financial spheres.

There are two other sets of relevant transformations: a) those that account for the increased and expanding systemic instability that fosters recurrent crises and b) the role of the State that, far from calling for its dismantling and retraction, has become a fundamental mediator, both as a guarantor of the continuity of accumulation, and the regulator of normative frameworks that bypass finance practices.

It is in this context of transformations that wealth appropriation gains more relevance than its production, as also proposed by Gotham (2009) and Aalbers (2012; 2017). A new historical function is conferred on a set of financial innovations capable of converting extremely differentiated real estate assets, often of low liquidity, and allowing them to circulate freely through homogeneous and easily traded securities in the financial market as a strategy for the increasingly refined capture of their income.

More precisely, it is

"... a generic name for a practice in the world of finance that consists of turning certain types of goods into paper. The commodities in question and the income that they can potentially generate become the collateral or basis for the issued papers, and the latter's remuneration is ensured by the income flow (or cash flow) that the commodity generates during a certain period in the future" (MELAZZO and ABREU, 2019, p. 4, translated by the authors).

Thus, in general terms, securitization allows "non-marketable" assets to become "marketable." That is, through this instrument, goods with low liquidity, restricted markets (and, therefore, restricted circulation), or even non-existent and / or "underdeveloped" ones can circulate on greater geographical scales. Consequently, it is also a question of altering the properties form to circulate more freely.

In the case of land and real estate assets, this closer relationship with the world of finance is defined by certain particularities imposed by the root asset's immovable nature. It has always been "marketable." Although this "marketability" has resulted from private property since the birth of capitalism, it only took place in local markets. So, the city was both its market of origin and destination; usually, a slow circulation restricted to this scale.

Securitization changes the form of the property by turning it into a security, allowing the immovable commodity to reach other scales of circulation. The process involves "the increasing integration of the housing finance and other financial circuits" (COAKLEY, 1994, p. 711), thus constituting an "... amalgamation between financial capital and real estate capital" (PAIVA, 2007, p. 141, translated by the authors).

The securitization of housing, the central object of this article, elevates this specific commodity to the equivalence of a valuable asset, distancing it from its use value and also creating new logics that start to condition its production and consumption, thus changing the very processes of production and consumption of urban space.

In this sense, the formatting of necessarily standardized and homogeneous assets (in the form of free circulation bonds) evidences its first contradictions and challenges. It goes against the inherent inseparable conditions of real estate products, namely, their immobility and typological and spatial heterogeneity.

Therefore, it is necessary to recognize that with financialization, the conduct of the logic and strategies involved in the capital circuits and real estate circuits become increasingly hybridized with financial circuits since "traditional" banks and a wide range of other agents start to develop asset management activities and negotiate, at present, the expected profitability promised from these assets (BRAGA, 1997; PAIVA, 2007; CHESNAIS, 2016). Through securitization, they repackage their illiquid and seemingly heterogeneous assets into "salable," liquid ones (COAKLEY, 1994; GOTHAM, 2009). Similarly, the chief agents of real estate production, who once confined their financing activities to the stock market, equity, or public financing, use progressively more of these securitization bonds to guarantee the funding required to make their ventures viable (CHIAPELLO, 2019).

At this point in the discussion, it is pertinent to synthesize the legal and normative instruments that make these processes feasible in the Brazilian context and, at the same time, reinforce the relevance of the role of the State in this particular socio-spatial context.

THE INTRODUCTION OF THE SECURITIZATION OF REAL ESTATE ASSETS IN BRAZIL

Transforming immovable property, particularly housing, into assets whose value then circulates in wider financial markets, repositions the immovable property itself and parts of cities in valuation circuits beyond the local market, which has always been crucial in determining land and real estate prices, conditioning their evolution or involution trajectories over time.

In Brazil, the financial instrument that introduces the securitization process linked to real estate debt securities is the Real Estate Receivables Certificate (RERC) (ROYER, 2009; 2014; BOTELHO, 2007; ROLNIK, 2015; ABREU, 2019). The creation and regulation of this financial product were foreseen and instituted in the legal-institutional framework of the Real Estate Financial System (REFS) in 1997 (Law No. 9514) with the clear expectation that the resources leveraged by these operations would become part of the funding to financing the real estate sector, displacing previous traditional sources.

An important part of the Brazilian real estate sector expansion in recent decades was anchored in these new financing possibilities associated with the constitution of markets and assets capable of promoting greater capital circulation within and through the real estate sector (ROLNIK, 2015). In no more than two decades of SFI regulation, the changes, adaptations and improvements introduced with the purpose of deepening the

connections between the dynamics of the capital market, through securitization mechanisms and property and real estate income, have not been small.

Analytically, these transformations should be perceived in light of the capacity of this regulatory environment has been able to promote greater territorial diffusion of principles that organize real estate markets in terms of the equivalence on real estate property to a financial asset and the linkages of land rents to the capital market (ROYER, 2009; SANFELICI, 2013; ABREU, MELAZZO, FERREIRA, 2020), and to establish a new relationship of forces for access to sources of funding for production and housing consumption, which until then had been fundamentally structured under a central role in attracting and directing private savings to credit lines aimed at real estate financing by commercial banks (KLINK, 2020; SHIMBO, 2010).

It is important to emphasize that the bases are given for a growing articulation between a set of norms and instruments capable, in theory, of offering the conditions and guarantees for the securitization process to advance in Brazil, even if it's slow growth and relatively small participation in the credit market. Thus, the SFI Law was just an embryonic step in the quest to make a real estate-based financial securities market viable in Brazil. Sanfelici (2020, p. 132) emphasizes that...

[...] Generally speaking, the REFS creates the mechanism for securitizing real estate receivables, allowing financial entities, mainly banks, to transfer their real estate portfolios to investors wishing to invest resources in real estate-backed securities, mainly Real Estate Receivables Certificates. Securitization companies intermediate this transfer, packaging the credits and distributing them to the final investors. The 1997 Law was just a first step to enable a secondary market for real estate receivables, as several other laws and directives have been proposed and sanctioned to foster securitization. The tax incentives granted to individuals who invest in securities backed by real estate and the changes in the rules regarding the allocation of investments from pension funds are highlighted here, allowing the latter to invest resources in securities backed by real estate credits. (SANFELICI, 2020, p. 132, translated by the authors).

Since its conception, the Brazilian version of securitized real estate assets has been marked by the challenges of establishing the conditions needed to create a financing structure for housing production, based on raising funds via the financial securities market within the framework of a "truncated" relationship between financial capital and real estate in Brazil, as analyzed by Fix (2011) and Klink and Denaldi (2014).

From 2010 onwards, overcoming these limits has partially combined several changes in legislation to encourage both its dissemination and increase investor safety and the concomitant constant transformation in the trajectory of the volumes operated by this market. The extent to which these assets have become part of the actions of financial institutions and construction and real estate development companies is indicated by the amounts in R\$ (reais) issued per year, as shown in Figure 1.

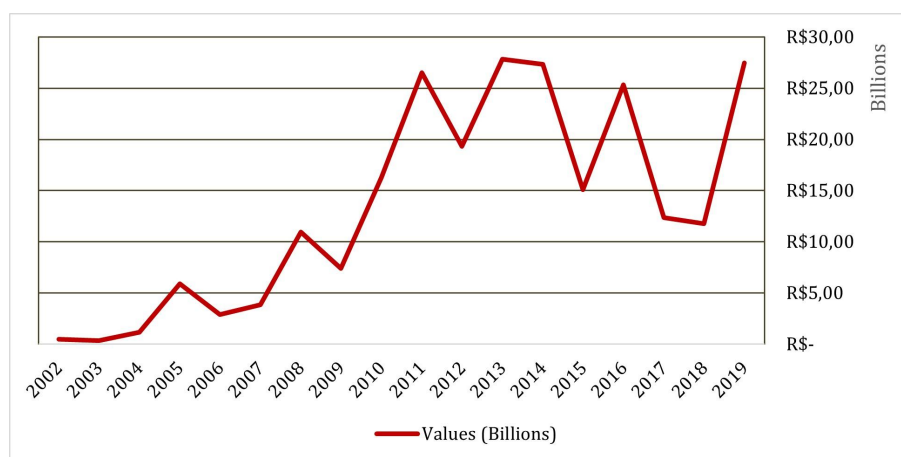


FIGURE 1

Brazil. Total amounts issued in securitization bonds. 2002-2019

http://estatisticas.cetip.com.br/astec/series_v05/paginas/web_v04_10_03_consulta.asp -
accessed on: 08/13/2020 - Deflated data IGP-DI / FGV, 12/2019. Elaboration: by the authors.

Figure 1 can be interpreted as the trajectory of the real estate receivables market's development, commercialization, and the capitalization of its resources. Two moments stand out: the first, between 2002 and 2010, confirms Botelho (2007) and Fix's (2011) analyses, which point to the restricted character of the real estate receivables market, marked by weak dynamism and low values issued in R\$ (reais). Subsequently, between 2011 and 2019, the values in R\$ (reais) increased each year, indicating the market's growth, peaking in 2013; there was an expansion of approximately 5.620% between the beginning and end of the series. However, it is worth stressing that this increase was not free of instabilities and significant oscillations.

Like Royer (2015), Abreu (2019), and Melazzo and Abreu (2019), this trajectory is associated with the action of certain relevant economic agents, whose strategies and logic indicate the penetration of the "universe of finance." Thus, they also start to play essential roles in this market's trajectory, which is evaluated in the next section.

If the legal-normative apparatus' creation and permanent refinement have vital implications for the general conception and dissemination of financialization instruments, that is, "[the] material forms produced and how the real estate stock is managed" (SANFELICI, 2020, 133), it also should be considered that the advance of the securitization process is based on the strategies employed by concrete economic agents, in the reorganization of the logic guiding their economic actions, in particular those arising from inter-capitalist competition. Therefore, it is important to analyze the recent trajectory of how different agents have mobilized these securitization assets in the real estate circuit.

It is worth remembering that the RERC can support different operations in the real estate sector. So, they can be linked both to real estate financing contracts from financial institutions and debt securities issued by construction / real estate development companies to produce real estate projects. Whether for rent or sale, they may be backed by different types of real estate products such as large commercial and service undertakings, corporate groupings, logistical warehouses, or diverse infrastructures.

However, as already explained, given the purposes of this article, only RERC emissions originating in residential properties and directed to the financing and production of housing are analyzed here, commanded by two important players in the national real estate circuit and their respective positions in what concerns the participation in the secondary market of real estate debt securities in Brazil.

The first agent is the Caixa Econômica Federal (CEF). Founded in 1961, this State financial institution occupies a prominent position in the national real estate credit scenario, especially the operationalization of real estate credit linked to public housing production programs, such as the Minha Casa Minha Vida

Program, Brazil's last major housing program. The second agent, MRV Engenharia S/A, is one of the leading Brazilian construction and real estate development companies, publicly traded on the stock exchange and most prominent executor of the housing program mentioned above.

RESIDENTIAL FINANCING AND THE EXPANSION OF SECURITIZATION

Created in 1964, the Caixa Econômica Federal (CEF) is the primary wholly state-owned financial institution in Brazil, subordinated to the Ministry of Economy. Since the dissolution of the National Housing Bank (BNH) in 1986, the CEF has acted as the operational arm of the Housing Financial System, managing public funds aimed at promoting credit and housing / real estate financing.

It manages and directs the resources originated by the Guarantee Fund for Time of Service - FGTS (compulsory savings from the contribution of employees and employers) and the Brazilian Savings and Loan System - SBPE (fed by the mechanism of individual and family savings), and is responsible for creating large-scale real estate credit funding in Brazil (ROYER, 2009; ELOY, 2013).

It is noteworthy that the dissolution of the BNH also represented the weakening of SFH itself, and the issue of housing started to have a diminished role in the public agenda, with comings and goings and partial and restricted housing programs, which marked the absence of effective State participation in fostering the Brazilian real estate / housing production sector (ARRETCHE, 1998; ROYER, 2009; 2016).

This scenario only changed effectively with the launch of the Minha Casa Minha Vida Program in 2009, a resumption of what Sanfelici (2020, p. 133) calls "the financial infrastructure of the residential real estate market in Brazil." The entire legal and institutional apparatus that shaped the Program's funding and financing sources placed the CEF as their central articulating agent. It became the financial institution responsible for managing and operationalizing the expected housing / real estate credit, mainly from the SBPE and FGTS funds.

Therefore, as a financial institution, the CEF can be considered a structural agent of the real estate sector in Brazil's paths and possibilities, especially when analyzed from the perspective of real estate / housing "infrastructures" financing.

In addition to its role in promoting real estate credit in Brazil, mainly through housing programs, it is essential to recognize the bank's substantial participation in the real estate financialization process itself. As already demonstrated in Abreu (2019) and Abreu, Melazzo, and Ferreira (2020), it participates in the Brazilian real estate receivables market, emphasizing securitized debts backed by residential properties, a fundamental step in finance's capture of the Brazilian housing market.

The strong presence of the CEF's issues is directly associated with its leadership in the concession of residential financing, based on the Housing Finance System (SFH). For example, between 2011 and 2016 alone, it originated approximately 70% of the total credit for housing purposes (UQBAR, 2016; 2017).

Furthermore, the CEF's entry into securitized bonds issuance represents significant changes in the RERC's real estate collateral. An important part of these issues is linked to residential real estate products with lower unit prices, specific to housing targeted at middle and even low-income segments.

The analysis of the CEF's issues after 2011 shows that these are almost entirely residential low and medium unit cost properties, financed up to R\$ 200,000.00 (two hundred thousand reais); most of them were financed under the PMCMV. In other words, control of financing leads to a strategic position in the use of the financialization instrument, as will be seen below.

Finally, the continuous spatial dispersion of this collateral is significant, financing and building "paper houses" (ABREU, MELAZZO and FERREIRA, 2020). Year after year, it is evident that the location of residential properties included in the Issuance Terms includes a growing number of cities from different regions and states, and urban centers positioned at different levels of the urban hierarchy (idem).

Hence, the CEF's participation in the RERC market now represents structural changes in the intentionality and use of real estate securitization. Formerly a market characterized by highly concentrated operations involving big high-end commercial and residential developments concentrated in a few large cities, almost entirely in the city of São Paulo, as pointed out in Botelho (2007) and Fix (2011), it has now gained new formats, structures, and content.

Between 2011 and 2019, the CEF issued six structured RERC operations. Most of the properties were directly financed by housing loans linked to the PMCMV. As demonstrated by the resources mobilized, these issues amounted to almost nineteen billion reais.

Table 1 shows more precisely the total values of the issues of securitized real estate securities, the values of those issued by banking and financial institutions, and the CEF, with their respective percentages.

TABLE 1
Securitized securities values. Total, banking and financial institutions and CEF. 2011 - 2019.

	Totals issued (a)	Banking and Financial Institutions (b)	% (b/a)	CEF (c)	% (c/b)
2011	R \$ 5,354,842,640.59	R \$ 3,676,952,809.61	69%	R \$ 2,282,604,288.60	62%
2012	R \$ 3,062,175,067.33	R \$ 2,861,980,726.36	93%	R \$ 2,513,098,878.63	88%
2013	R \$ 7,697,936,662.73	R \$ 7,267,449,332.26	94%	R \$ 2,238,361,252.60	31%
2014	R \$ 2,229,952,328.14	R \$ 2,119,452,327.86	95%	R \$ 1,790,437,494.68	84%
2015	R \$ 1,104,159,291.95	R \$ 783,429,076.94	71%	R \$ 698,589,368.82	89%
2016	R\$ 12,138,326,106.21	R \$ 10,986,080,327.61	91%	R \$ 9,420,816,485.76	86%
2017	R \$ 1,402,334,913.43	R\$ 0,00	0%	R\$ 0,00	0%
2018	R \$ 516,705,753.16	R \$ 78,861,157.00	15%	R\$ 0,00	0%
2019	R \$ 1,773,068,290.32	R\$ 0,00	0%	R\$ 0,00	0%

Data obtained from operations registered with the Brazilian Securities and Exchange Commission (CVM). The information related to CEF was compiled from the 1st issue of series 203, 204, the 4th issue of series 31 and 32, both from 2011; the 1st issue of series 75 and 76 in 2012; the 4th issue of series 43 and 44 in 2013; the 1st issue of 110 and 111 in 2014; the 1st issue of series 123 and 124 in 2015; 2nd issue of the series 265, 276 and 277 in 2016.

Extracted from: <https://web.cvm.gov.br/app/esforcosrestritos/#/consultarOferta>, accessed on 04/16/2021.

The data highlights the CEF's relevance and centrality when analyzing its participation in terms of amounts in R\$ (reais) in the RERC market in Brazil. The following are noteworthy:

a. The centrality of banking and financial institutions in the volumes issued in R\$ (reais): in 2018 alone, the volume is around 15% of the total. In the remaining years (except 2017 and 2019), this segment's relevance is clear as it concentrates more than 90% of the values issued;

b. The CEF stands out among banking and financial institutions as it concentrates the largest volumes, except for 2017, 2018, 2019, when the CEF did not issue and 2013, when the CEF only had 31% of the total issued by all other institutions. In the other years, it was responsible for more than 60% of the volumes.

The Information Presented Above Indicates The Relevance Of This Public Bank That Controls residential real estate financing in the formation and conduct of the securitization process, emphasizing its dissemination in Brazilian cities.

THE SECURITIZED PRODUCTION OF HOUSING BY MRV ENGENHARIA S / A.

MRV Engenharia S / A is one of Brazil's main construction and real estate development companies. With an operations centered on the production of residential projects for the middle and low-income segments, its real estate production performance was particularly intense between 2009 and 2020 due to the volume of projects originating from the PMCMV.

Founded in 1979 in the city of Belo Horizonte / MG, in the 1990s, the company started growing its activities and the territorial expansion of its operations, as well as integrating several other real-estate related activities (engineering services, developer, construction company, urbanizer, online lease real estate investment fund, and a bank), which were consolidated in the first decade of the 2000s. In 2007, it went public on the Brazilian stock exchange, and in 2019, it acquired North American Residential AHS and began to operate in the USA.

The trajectory from a family business and local operation to a major economic group (GONÇALVES, 1991 and PORTUGAL, 1994), with a strong national presence, currently present in more than 160 Brazilian municipalities, with over 500 thousand units produced through the PMCMV and the beginning of international operations, with 27 projects and 9510 residential units in the USA (MRV, 2021), was marked by decisions to adapt its organizational structure and operational capacity and to use strategies that expanded their investment power, via the capital market and different instruments, (RIBEIRO, 2020 and PENHA FILHO, 2020).

Equally important, the possibility of benefiting from the Brazilian conjuncture in the period, roughly between 2004 and 2014, also played an essential role in its growth. The resumption of economic growth, the expansion of access to credit and consumption capacity, and increased employment levels and redistributive social policies (MARICATO, 2011; ROLNIK, 2015) were critical factors in this trajectory. More specifically, the launch of the PMCMV (2009) contributed significantly to making it one of the largest producers of national housing (SHIMBO, 2012 and CARDOSO, ARAGÃO, JAENUSCH, 2017).

Four of these transformations are directly related to the central object of this text, that is, the approximation and increasing intermingling between the financialization processes of real estate production and the gradual expansion of residential real estate securitization in Brazil, namely:

a. In 1994, MRV created the INTERMEDIUM bank that directly supported its real estate activities, based on the promotion of real estate credit operations;

b. In 2007, it held its IPO (Initial Public Offering), marking the beginning of its operations on the Brazilian Stock Exchange. According to Melazzo (2013), in the previous year (2006) and as a preparatory stage for access to the capital market, 16.7% of its capital was acquired by Autonomy Capital Research LLP, indicating its links with international capital and the increasing results of its revenue, net revenues and, consequently, in the expansion of the number of projects and housing units launched each year (RIBEIRO, 2020).

c. In 2011, it started to use the real estate securitization instrument. Over a nine-year interval, it raised over 1 billion reais or 18% of the total value of securitized bonds by companies directly linked to real estate production (Table 2).

d. Finally, in 2019, it started operations on the Luggo Fundo de Investimento Imobiliário stock exchange dedicated exclusively to the management and rental of residential properties.

The company's four concrete actions in its approach and entwining with the world of finance through the creation of its bank, the entry into the capital market, the use of securitization, and the launch of a real estate fund, speak volumes about the ongoing transformations in the company's dimension and productive capacity, which, without a doubt, also impact on the production of Brazilian housing and cities.

Given the purposes of this article, centered on real estate securitization in Brazil, it is noteworthy that between 2011 and 2019, MRV originated eleven structured RERC operations through real estate financing

aimed at the production of residential projects. Most of these projects targeted the middle and low-income segments, most of which were constructed under the PMCMV brand.

Table 2 presents how these issuances mobilized just over R\$ 1 billion in the period considered. These resources originated from the promise to build 110 projects, distributed in 59 cities of varied different sizes and extracts in the Brazilian urban network, 35 of which (almost 60%) are medium or medium-sized cities, indicating the use of securitization outside metropolitan regions and state capitals.

TABLE 2
Securitized securities values. Total, Real Estate Sector and MRV. 2011 - 2019.

	Total (a)	Real Estate Sector (b)	% (b/a)	MRV (c)	% (c/b)
2011	R \$ 5,354,842,640.59	R \$ 1,677,889,830.98	31%	R \$ 200.400.000,00	12%
2012	R \$ 3,062,175,067.33	R \$ 200,194,340.97	7%	-	0%
2013	R \$ 7,697,936,662.73	R \$ 430,487,330.47	6%	-	0%
2014	R \$ 2,229,952,328.14	R \$ 110,500,000.28	5%	-	0%
2015	R \$ 1,104,159,291.95	R \$ 320,730,215.01	29%	R\$ 60,000,000.00	19%
2016	R \$ 12,138,326,106.21	R \$ 1,152,245,778.60	9%	R \$ 640,000,000.00	56%
2017	R \$ 1,402,334,913.43	R \$ 1,402,334,913.43	100%	R \$ 154,250,000.04	11%
2018	R \$ 516,705,753.16	R \$ 437,844,596.16	85%	R\$ 0,00	0%
2019	R \$ 1,773,068,290.32	R \$ 1,773,068,290.32	100%	R\$ 300,000,000.00	17%
Total	R \$ 35,279,501,053.86	R \$ 7,505,295,296.22	21.27	R \$ 1,354,650,000.04	18.05

Data obtained from operations registered with the Brazilian Securities and Exchange Commission (CVM).

The information related to MRV was compiled from the 1st issue of the 188 series in 2011, the 1st issue of the 21 series of 2015, the 1st issue of the 63 and 64 series of 2016, the 1st issue of the 84, 85 and 86 series of 2016, the 1st issue of the 91, 92 and 93 series of 2017 and the 1st issue of the 7 series of 2019.

Extracted from: <https://web.cvm.gov.br/app/esforcosrestritos/#/consultarOferta>, accessed on 04/16/2021

These operations, the ultimate purpose of which is to gather financial resources for the production of real estate projects, should not be perceived separately from the commitments to investors, through the payment of dividends resulting from the company's equity, the potential of new real estate launches, the formation of land banks, the General Sales Value and the spatial extent achieved by the company in its operations in different cities.

However, it is significant that, over the period, the securitization obtained from the launch of new residential buildings occupied a position with a lower percentage than that of financial institutions, as identified in the previous item, with due emphasis on the CEF (see Table 1).

Even so, given the absolute numbers, it is evident that, in the years in which MRV participated in the issues, the percentages reached by the real estate sector had a greater weight in the set of securities launched on the market.

In addition, in the years after 2016, when the CEF stopped launching issues, the weight of the real estate sector in issuances with assets backed by real estate financing reached 100% (in 2017 and 2019).

When compared to the real estate sector as a whole, MRV Engenharia S / A occupied a prominent position in the period, reaching 56% of the total issued in 2016 and, on average, reaching around 18% of the total.

Such information allows us to maintain the relevance of the weight and importance of the securitization process in the set of financial leverage strategies conducted by this company. Furthermore, following the

recommendation of Penha Filho (2020), they deepen the intersection of financial logics in the group of companies as an instrument to reduce capital rotation time, an essential feature of the requirements for its reproduction in the capital markets, and has offered the continuity of indebtedness, expanding its productive capacity. However, it also involves an endless search for liquidity, increases instability, and imposes greater risks on themselves and the system as a whole.

CONCLUSION

The identification and analysis about securities of residential properties in Brazil by the main provider of real estate credit (CEF) and by one of the largest companies in the production of residential properties (MRV) allows us at this moment to present some conclusions from two fundamental perspectives: consumer financing, which includes the issuance of securities backed by housing financing and the raising of funds for the production of enterprises.

I residential furniture, through the securitization of debt securities originated by construction and real estate development companies. These relationships allow us at least four considerations about the conditions under which this process developed.i residential furniture through the securitization of debt securities originated by construction and real estate development companies. These relationships allow us at least four considerations about the conditions on how that process has developed.First, as the origin of this process occurs in the time frame of the promulgation of the national legislation in 1997, it is possible to underline not only that the trajectory of such mechanisms is particular to each country, its agents, and their operating conditions, but also that their spread from the countries of central capitalism outwards is not automatic and linear. Instead, it is more a process where agents learn, adapt, and find the moment in time and conditions for its adoption. In addition to being marked by each country's particularities, the effective use of securitization depends on a learning process, which leads to the conclusion that general financialization processes are also historical construction processes disseminated as a function of specific circumstances and the legal and institutional environment in each country.

Moreover, it is noteworthy that, with this continuous learning, securitization is no longer an instrument exclusively aimed at commercial or service properties in large enterprises concentrated in the metropolises (notably São Paulo). They have started to be used for residential properties and have spread across different cities in the urban network, with different demographic sizes and functions. Thus, the growing use of the instrument by agents and its expansion to an increasing number of cities and enterprises confirm the process's dynamics. Thirdly, even considering the substantial presence of financial institutions, some of which entered the real estate securitization market early and with an intense volume, such as the CEF, the housing producers' entry into this market, particularly those publicly traded on the stock exchange, clearly indicates that it is no longer a restricted or one-off instrument. These companies began to contribute to its generalization under the terms set out in the previous item, geographic expansion, and gaining control of the residential marketplace.

Finally, contrary to the previous trend, the relative concentration of the use of securitization in the hands of a few prominent players is striking. If, on the one hand, this concentration is an indication of the potential for its future dissemination, on the other, it also reinforces a small number of agents' power by intertwining their roles in the real estate market with their conditions of access to the securitization instrument.

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