# Housing Policy and the Restructuring of The Real Estate Sector in Brazil

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**Abstract**

This paper examines the restructuring of the real estate sector in Brazil and its correlation with housing policies implemented since the late 1960s, with a special focus on analysis over the territorial impact of these processes in the Metropolitan Area of Rio de Janeiro (RMRJ). During the 1980s the homebuilders adapted their organizational structure based on self-financing practices and cooperatives. In the following decades, the real estate sector began a second restructuring process focused on two dynamics: the financialization of real estate companies and the spreading of activities of few construction companies all over the country through merging strategies. Between 2003 and 2004, other processes reinforced these trends: (a) Real Estate companies have held IPOs, capitalizing and diversifying their operations; (b) changes in regulatory funding policies expanded exponentially the credit conditions to the general public; and (c) the economic growth has been fostered by government policies, with a progressive fall in general interest rates and with raises in the lower and middle classes' average incomes. Nevertheless, the 2008 crisis strongly affected the real estate sector. As a solution for the liquidity problem in construction sector and as a countercyclical instrument to encourage economic growth, the government launched a new housing program called "Minha Casa Minha Vida" (MCMV). The scope of this program has had an intrinsic impact on urban infrastructure, inducing an increase of urban inequalities. Since 2005, a continuous and sharp rise in property prices, supported by the credit expansion and also by local policies aiming the cities' preparation for mega events (such as the World Cup and the Summer Olympics), influenced the configuration of urban space of Brazilian cities, with consequences on social segregation. As an empirical case, this paper will analyze the location of MCMV projects in Rio de Janeiro, combining the spatial pattern with changes in housing prices. The paper will explore the economic, social, political and territorial sustainability of this model and will analyze the role of the State in supporting Market interest instead of supporting sustainable urban policies.

## Introduction

Since the mid-2000s, Brazilian real estate companies have gone through transformations relating both its financial structure and the way by which they produce real estate ventures. The process of housing financialization has been established based on a favorable economic context that influenced the IPOs of a few large construction companies.

At the same time that the housing market was being supported by the regulatory measures adopted by the government, a new social housing policy was structured, based on the role of local government as its leading actor[1]. However, internal political events (corruption scandals) and external economic conjuncture (subprime crisis) minimized the agenda of urban policies in progress. In March 2009, a large credit program for housing production and consumption was released. This program was called Minha Casa Minha Vida (MCMV) and represented the shrinkage of State's role as the promoter of social housing policy, bringing substantive impacts on the urban environment.

This article aims to link the economic context to the changes in the social housing agenda that took place afterwards and its effects in the real estate structure. Moreover, it seeks to demonstrate the territorial effects of a social housing production based on market principles and on real estate companies' leadership and interests

The first part of this paper describes the macroeconomic context in which the main lines for financialization of housing production were designed. Afterwards, it shows the evolution of self-financing and cooperative schemes towards the financial arrangements created by Real Estate Financial System (SFI). In the third part we discuss the rise of the American subprime crisis and how housing policies gained importance in the governmental agenda and, at the same time, were captured by real estate companies' interests. Finally, the territorial consequences of this policy are empirically identified and examined, using the State of Rio de Janeiro as an object of analysis.

[1] An analysis developed by BONDUKI (2009).

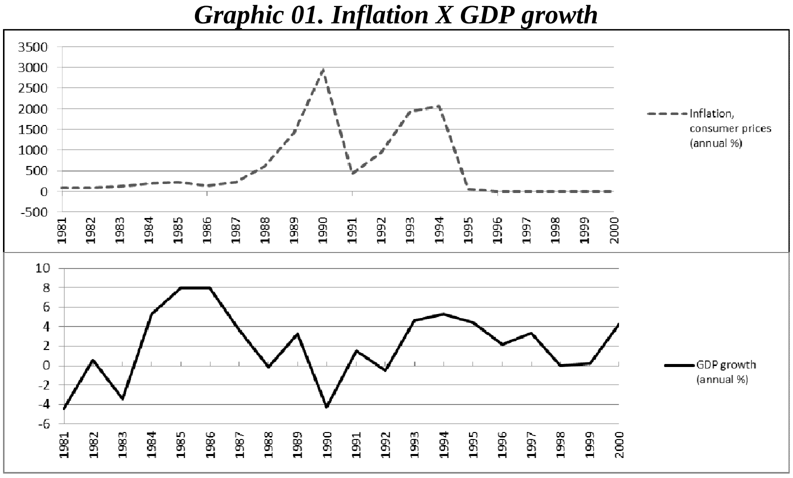
## 1. Macroeconomic aspects

To understand the financialization of the real estate market in Brazil, it is necessary to know in which context the Brazilian Financial System was structured and which kind of housing financialization process we are analyzing in the present study.

The most important changes in the Brazilian Financial System have happened during the 1980s and 1990s and have laid the foundations for the current model of real estate financing. The 1980s decade in Brazil was a period characterized by hyperinflation, which was a result of the international fiscal crisis generated by the Mexican Moratorium and the retraction of the international credit. Bresser Pereira (1991) argues that the high degree of indexation of the Brazilian economy allowed an inflationary inertia in the domestic market. Actions such as fixation of prices and economic stabilization plans achieved poor results. The Cruzado, Bresser and Verão Plans contributed to the economy's disarray and to the failure of the indexing system that had existed since 1966. Thus, the system lost the prices' reference and the inflation reached levels never before expected. (See Graphic 01).

The economic crisis greatly impacted Latin-American countries and forced almost all of their governments to submit themselves to the IMF's policies of fiscal adjustment. In the Brazilian case, the Real Plan (1994) was launched as a part of the adjustment measures, establishing new rules for conversion and use of monetary values, initiating the de-indexation of the Brazilian economy through the release of a new currency. With that, the volatility of markets was reduced and the inflation, controlled. This contributed to a structural transformation of the national economy.

***Graphic 01. Inflation X GDP growth***




Source: World Bank.

As a reflex of the Real Plan, banks, used to large inflationary revenues, had to adjust their sheets to the new context and announced they were on the verge of bankruptcy. In 1995, in order to protect the interests of savers and investors and to ensure liquidity and solvency to the National Financial System, the government launched the PROER [Program of Incentives for Financial System Restructuring] which injected funds in banks and opened the domestic market to foreign investors. After this moment, international banks started to operate in Brazil. (Bresser Pereira, 1991)

Carvalho (2002) emphasizes that there was pressure made by multilateral institutions over national governments in Latin America to accept the presence of foreign financial institutions in local financial markets. The argument used was that the entry of foreign banks would increase the operational efficiency of the domestic financial system and make it more solid and stable. For Strachman & Vasconcelos (2001), this process would expand the diversity and quality of financial products available in the market, developing skills and financial technologies, since domestic banks would be encouraged to improve their services given the extra competition that international banks represented. The presence of foreign banks would also tend to expand the country's access to international capital flows, and make the supply of credit less sensitive to fluctuations in domestic macroeconomic cycles, according to these authors.

Accordingly, the restructuring of the Brazilian Financial System occurred through different packages of regulations that combined mergers and acquisitions of financial institutions, the establishment of a basic interest rate (Selic), which is set by the Central Bank and the regulation of financial products such as asset-backed securities and derivatives. In this sense, the second half of the 1990s was characterized by the creation of a variety of financial products, used by the foreign banks to trade in the global market.

In order to discuss and define the best financial tool to innovate the financing of public housing, the ABECIP [Brazilian Association of Mortgage and Savings] promoted meetings, workshops and conferences. As a result of such debates, in 1997, the Sistema Financeiro Imobiliário - SFI [Real Estate Financial System] was created following the model outlined by American mortgage markets. Basically, the SFI introduced the following innovations: (i) the Certificado de Recebíveis Imobiliários - CRI [Mortgage-backed Securities], (ii) the Fundos de Investimento Imobiliário - FII [Real Estate Investment Funds] (iii) the establishment of new rules for Mortgage Securitization Companies, and (iv) the Fiduciary Regime, the essential tool for establishment of charter mortgages.

As Botelho (2007), Royer (2009) and Fix (2011) highlight, the growth of housing finance is closely linked to the existence of effective guarantees of returns, autonomy on hiring operations and a credit market capable of capturing long-term funds, mainly from large investors. By the fiduciary regime, the owner of a house, in assurance to the mortgage debts, transfers the property in favor of the lender. This represents that the lender becomes the trustee owner and has the indirect possession of the property until the settlement of the debt. Given this kind of guarantee, charter mortgages were allowed to be converted into Mortgage-backed Securities (CRIs) and sold in the secondary bond market. With this, the Financial Agents could sell CRIs and reinvest the capital in new loans, increasing the demand in the country.

Nevertheless, it is important to bear in mind that the purpose of SFI was the magnification of financial products and trade, prior to being effectively a tool to boost the activity of real estate. Logically, there was a convergence of interests, since the financial asset occurs necessarily through the real estate activity. In this sense, the SFI represented the legal framework for the space financialization process[2].

## 2. The restructuration of construction companies

Given that the property is a product that aggregates a considerable sum of capital and has a great production cycle (on average 2 years per project in Brazil), the housing production is configured as an area with low attractiveness for investments. In addition to the loss derived from the large period of immobilization of capital, it is hard to sell a property, considering that only few consumers have the required amount of money to buy it. Therefore, the consolidation of a system for real estate financing, both for production and for consumption, represents driving force for the real estate sector.

[2]The Space Financialization is understood here as a process by which real estate units became a vehicle to reach yields in the financial sphere.

In Brazil, the Sistema Nacional de Habitação – SFH[3] [National Housing System], created in 1964, is responsible for funding housing construction and commercialization all over the country and was operated by Banco Nacional de Habitação – BNH [National Housing Bank] until 1986, when it was extinct. The dismantling of the urban and housing policy that took place after the BNH era represented a retraction on real estate funding and resulted in a great impact on the construction industry. After the BNH extinction, a period of almost 15 year of stagnation in the real estate sector has begun [4].

Due to the lack of capital to finance real estate projects, during the 1990s the so-called Self-Financed Cooperatives emerged and took advantage of cooperative regulation used to deploy social housing during the BNH era[5]. According to Pereira et al. (2002) housing cooperatives are associations of people, usually with limited resources, who aim the acquisition of a property. These Cooperatives were usually linked to a homebuilder responsible for co-op production and had the goal of forming groups of households to finance projects through advanced sales (Giglio & Gamba, 2013).

Yet, even adopting pre-sales, the problem of housing production remained, once the SFH borrowers were not allowed to use the mortgage to purchase a pre-sold house and

[3]The SFH [Housing Finance System] encompasses the FGTS [Guarantee Fund for Time of Service] and the SBPE [Brazilian System of Savings and Loans], and it represents the main State-managed resource to promote infrastructure and housing works in Brazil.

The FGTS [Guarantee Fund for Time of Service] was created to protect employees that were dismissed without just causes. It is a compulsory deposit held by the employer on behalf of its employees, linked to the employment contract, with a value corresponding to 8% of the employee’s monthly salary. In case of dismissal without just cause, the employee receives an indemnification proportional to time of contribution. The worker can also receive the FGTS money when they file for retirement (only possible after 35 years of work).

The SBPE [Brazilian System of Savings and Loans] is the capital held by real estate credit companies, savings, loans agents and real estate portfolios of multiple banks. These financial agents must follow the investments’ guidelines established by National Monetary Council that are monitored by the Central Bank.

[4]As shown in Valença and Bonates (2010).

[5] Unlike European Housing Cooperatives created during the postwar period, Brazilian Housing Cooperatives emerged under State’s tutelage. The housing cooperatives were not allowed to use their members’ workforce. Instead, construction worker companies were hired to build housing projects.. In a dictatorship, any form of social organization was seen as a threat. Thus, the construction companies were responsible for production, while the cooperative members’ duty was restricted to the payment of installments. Accordingly, the cooperative programs deployed by BNH were regulated by the 5764/71 Law. This law did not recognize the relationship between cooperado and housing cooperative as a legitimate purchase relationship, and such status was not modified by the célèbre 1988 Constitution: if there were bankruptcy of the cooperative, labor costs and other legal responsibilities would be jointly distributed among shareholders.

most of householders did not have enough money to buy a home without a mortgage[6]. Considering the production cycle, co-op housing projects also required the contribution of high installments by members. Without a mortgage to dilute the cost over 10-15 years, the target audience of Self-Financed Cooperatives took distance from the low-income households and entered into the residential market for middle and upper class[7] . In this sense, the main Self-financed cooperative members were those one that invested in real estate as a strategy to save capital during the hyperinflation period.

To enable production, the homebuilders based their revenues on *ex ante*'s payments and *ex post* mortgage. To obtain more liquidity, co-op members were encouraged by the cooperative to migrate to mortgages granted by SFH once the housing unit was ready. The more members pay their debts through migration to the SFH credit system, more capital was acquired by homebuilders for financing new projects.

In the course of time, the co-op production provided significant profits for homebuilders which allowed the formation of a working capital. Considering the shortage of credit in domestic market for pre-sold housing and the limited number of real estate investors, the homebuilders started to use part of working capital to finance their own demand through subsidiaries companies of credit. Accordingly, during the 1980's and 1990's the real estate was supported by the association of self-financed cooperative scheme and their credit companies subsidiaries (See in Figure 01).

One important aspect of this model is that, in the beginning, homebuilders were not interested in absorbing the credit function, since the goal was the production of real estates instead of income itself, generated by financial gains. However, administrative innovations on construction companies were performed: the flexibilization of labor regulations based on IMF agenda and the expansion of outsourced work enabled the constitution of specialized management's staff as a central characteristic of construction

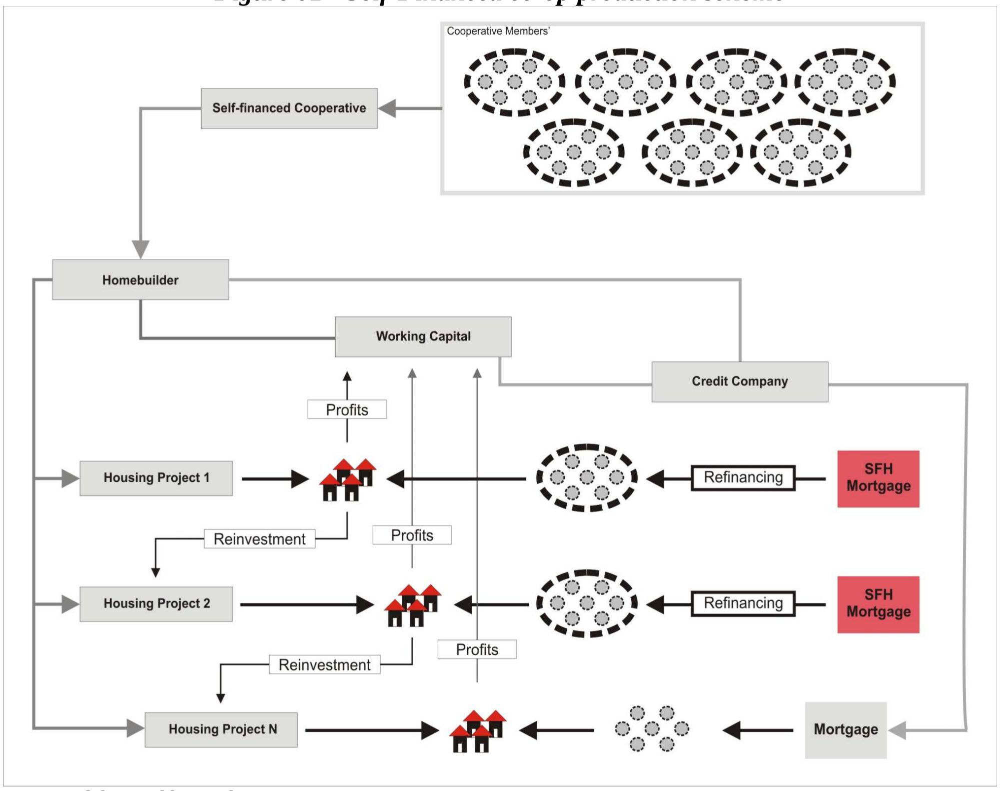
[6]In a crisis context, the risk of unfinished projects is high, and to distantiate the consumption loans from the risk of production, the mortgage offered by SFH was only possible if the properties were legalized (presentation of Habite-se)

*Habite-se is the document that proves that the project was built following the urban and construction requirements established by law. It is the Occupancy Permit.*

[7]For the construction industry, it was important to maintain the operational cost (production profits) as a strategy against the economic recession.

companies. Companies that were predominantly composed by family members with their own became streamlined and more focused on project management.Construction companies that were family- held, and that used primarily its own employees in ventures had to modernize themselves after the financialization, and adopt a number of managerial processes to outsorce its workforce. With this, the credit function became one of institutional tasks of homebuilders, once the mortgage trade provided extra revenues for them and also boosted the demand.

***Figure 01 - Self-Financed co-op production scheme***



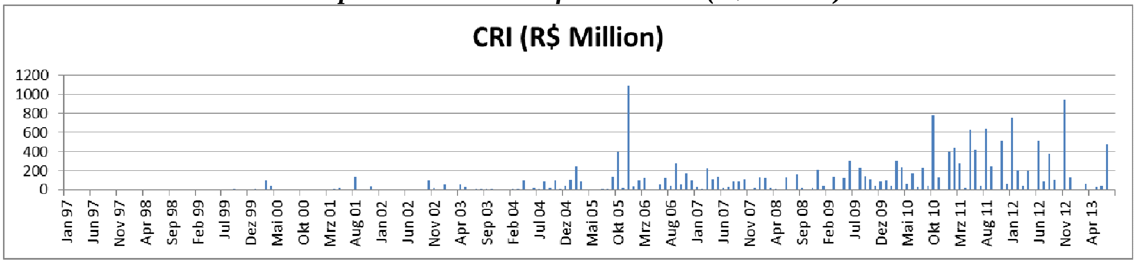

Source: Elaborated by Author

Alongside the Self-financed cooperatives schemes, which provided housing for the lower middle classes, the real estate sector also maintained the more “traditional” forms of production for the upper classes, based on self-financing and working with short term lending practices. In any case, housing production was restrained all along the 1990s.

## 3. The Brazilian property boom and the subprime crisis

Surprisingly, the creation of SFI in 1997 brought about low investments to housing production. There was no significant transformation in housing financing during the first five years of Mortgage-backed Securities (CRIs) trade. Many analysts claimed that this phenomenon could be explained by the high interest rates established by the National Monetary Council, which transformed the government bonds into a more profitable (and less risky) investment than the CRIs. However, this is just one variable that may explain the initial failure of SFI.

***Graphic 02 – Amount of CRI's trade (R$ Million)***




Source: CVM.

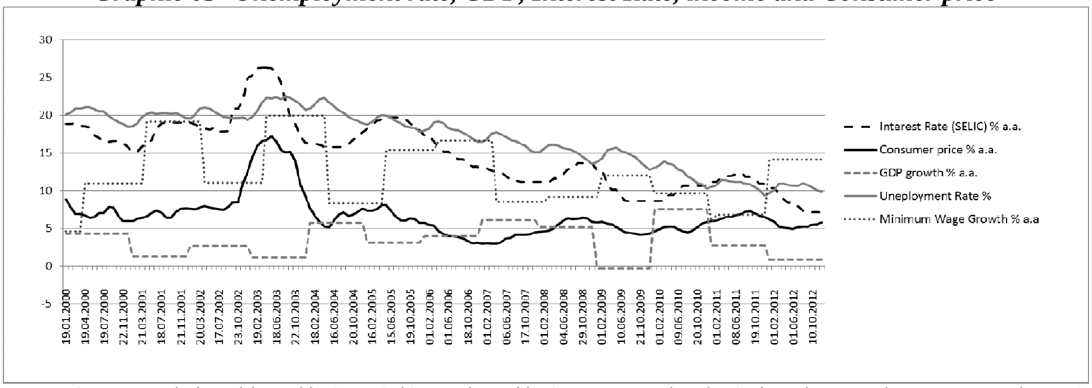
As a consequence of the Asian (1997) and Russian (1998) crises, the structural adjustment of the economy became more aggressive in Brazil. The diagnosis prepared by the government's economic team pointed out two imbalances in the economy which were accumulated during the 1995-1997 period: the public accounts and the international trade. For Averbug & Giambiagi (2000), the necessary actions to deal with the crisis required spending cuts combined to increasing of revenues. The rise of Brazilian products competitiveness was a central objective in order to provide a positive flow of international capital into the domestic market. Accordingly, the economic crisis impacted on housing policy at two levels: first, in the rise of interest rates and in the credit crunch. Secondly, restrictions on Government' spending and public debt, resulting in a substantial reduction of public sector's funding that virtually paralyzed urban programs and housing projects financed by Federal Budget. For Paiva (2007), Royer (2009) and Fix (2011) the failure of SFI is also related to the mistrust of the international investors in the recent establishment of real estate securities market, as well as the future of Brazilian economy.

However, despite all the arguments used by ABECIP to justify the SFI's regulation, there was no housing boom after that, indicating that the dynamic of real estate follows variables other than the mere existence of a financial framework. Sorensen (2006) stresses that demand is at the basis of a proper real estate analysis. In addition, Bujang, Zarin & Jumadi (2010) show that the growth of housing demand is related not only to interest rates, but also to the income and to the contractual terms of mortgage payment.

Myers (1990) and Sirat et al (1999) pointed out that the demographic factors may also affect the demand for housing, whereby the higher demand is associated with a larger population and the constitution of new families. Accordingly, to analyze the behavior of Real Estate and the success of its financial mechanisms, it is important to consider a wider spectrum of social-economic conjunctures.

During the 2000s, Brazil experienced a process of economic growth based on policies that engaged a new macroeconomic approach taken by the economic team of President Lula during his first term at the office. One of the very first actions taken by the Federal Government was to decrease interest rates and increase the minimum wage. Hence, between 2003 and 2005, the Gini coefficient of the country dropped from 0,56 to 0,53 and some of 26 million inhabitants left poverty.

***Graphic 03- Unemployment rate, GDP, Interest Rate, income and Consumer price***




Source: GDP growth (World Bank), SELIC (Central Bank), Consumer price (IBGE) and Unemployment Rate (DIEESE)

Considering the economic stability and the subsequent raise in housing demand, the construction sector decided to start a new production cycle. However, for the credit for production was still at a low baseline and the Federal Government was afraid of an inflation effect, should the enlargement of SFH mortgages without equivalent production took place. At the same time, banks, which could also take the decision of raising the amount of mortgage, showed no interest whatsoever in providing credit for the purchase of real estate properties

In order to benefit the productive sector and sustain the employment rates without investing more money in the domestic market through credit, the Federal Government promoted tax relief in sectors with intensive use of workforce. The launch of Provisional Measure (PM) 252/2004, better known as “the good PM”, was an example of governmental action which stimulated the purchase of homes and properties, and consequentially favored the entire real estate sector. The PM 252/2004 provided tax exemption over sales of residential property in the situations when the capital, deriving from trading, was reinvested in real estate through means of purchase of other residential property. This act also created the "Reduction Factor" which decreased the contribution over capital gains originated in new housing units' sales. With this, the homeowners were encouraged to sell their used stock and reinvest the capital on new units. The Federal Government also pressured banks to respect the statutory percentage of resources (65% of savings) that had to be used as mortgages in the savings and loan system; otherwise, the Central Bank threatened to increase the cash inflow of banking agents[8]. The government believed that a growth in income would lead to an increase in savings and a natural rise in mortgages. There was no need in changing the statutory percentage in order to raise the credit flow. These changes not only boosted the entire residential market, but allowed and catalyzed the beginning of a property boom. (Cardoso & Aragão, 2012)

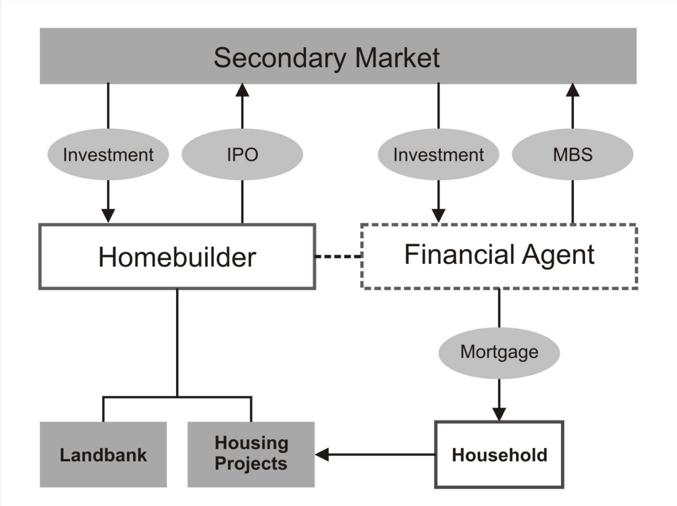
The changes in the regulatory framework to stimulate the housing market also included the FGTS' rules. In 2004 the government authorized the draw of indemnification by workers in four year intervals in order to permit the purchasing of a house or for amortization of previously contracted mortgage. Another measure adopted was the use of direct subsidies in order to increase the possibilities for low income workers in assessing credit. All these measures influenced significantly the real estate dynamics.

To cope with the growth in housing consumption, as generated by PM 252/2004, the construction sector still had to deal with the lack of capital earmarked for production. Because of this, homebuilders entered in a second wave of restructuration. Between 2005 and 2007, 29 building companies went public and the IPOs of real estate companies injected more than R$12 billion (around US$ 6.2 billion) into the sector (Haddad & Meyer 2012). At the same time, these companies improved the activities of their credit agents by selling the CRIs. With this process, the homebuilders established themselves as producers as well as financial agents, transforming the real estate sector all over the country.

[8]Whereas the cycle of credit for goods in general is shorter and with higher interest rates than mortgages, the profits from these operations are more attractive to banks. For this reason, banks used to transfer long-term portfolios resources to short and medium term operations.

To build a long-term plan of investments, a significant amount of capital was invested in landbanks, and the remainder was invested into new projects. In 2014, 22 companies from the real estate sector were still listed in BOVESPA (State of São Paulo's Stock Exchange), the main stock exchange in Brazil. Nine of them concentrated some 100 billion reais (37 billion US dollars) in land, which represents almost 620.000,00 km² of land in the main cities of Brazil[9]. This process has affected the dynamics of Brazilian urban development throughout the country.

***Figure 03- Construction Companies organizational strategy scheme***




Source: Elaborated by Authors.

Due to the amount of resources collected through the trading of real state companies' papers in the co Stock Market, an exponential increase in productivity was paramount. As a strategy, the construction companies that went public have spreaded their geographical area of operation and entered into new housing markets through the association or purchasing of small/local construction firms, which had strong expertise in project approval, control over the workforce and knowledge of the target audience. This partnership was also made by joint ventures called Sociedades de Propósito Específico – SPEs[10] [Special Purpose Associations]. Through this, the brokerage activity also sought a national insertion through the association with those public traded companies.

[9] Based on Construction companies' Annual reports

[10] Normally, in a SPE, the holding company defines the project and controls the construction schedule, while the associated firm is responsible for the execution of the venture.

## 4. The National Social Housing System (SNHIS)

Despite the favorable scenario for real estate companies in Brazil and the increased demand for new housing, real estate companies suffered setbacks as a result of the United States subprime crisis. Investors began to sell their papers in the stock market, affecting the price of public companies. As a response to the liquidity problem of homebuilders, political actions were needed to ensure the trustworthiness of businesses from the perspective of the international market. As a strategy to reinforce housing consumption in Brazil and rescue those companies, the Construction Sector proposed to the Federal Government the launch of a mortgage program for social housing. However, this maneuver represented important losses for the National Housing Policy that was being built in a participatory basis, since 2003.

In the political arena, the transformations promoted by Lula's two presidential mandates (2003-2011) reflected on the change of political culture and established a different logic of urban governance. With a specific agenda, the Ministry of Cities developed the normative and institutional base for a new National Housing Policy and proposed the creation of the Sistema Nacional de Habitação de Interesse Social– SNHIS [National Social Housing System].

The SNHIS aimed to define institutional guidelines to be followed by different levels of government, based on four principles: (i) strengthening of planning processes, (ii) empowerment of municipal organizations as social housing developers, (iii) establishment of mechanisms for participatory governance, and (iv) creation of new financial structure to support regional and local policies.

For adherence to the system, it was mandatory for states and municipalities the creation of their own social housing funds to be controlled by popular councils. Each government should also draw up Housing Plans, defining principles, priorities and goals. The main objective was establishing a long term policy, integrating federal, state and municipal projects[11].

[11] The popular participation processes in the urban and regional policies required by SNHIS rules led to conflicts of interests in State and Municipal spheres. The democratic process during the elaboration of public budgets, as well as the cities master plans, highlighted the competition for financial and non-financial resources and bothered the political and economic elites.

Considering the financial structure of SNHIS, the National Housing System was divided into two financial subsystems: Social Housing and Housing Market. To address the housing problem, it was a consensus that State and Market should act in tandem, with different audiences and resources. The Housing Market Subsystem was established to meet the housing demand[12], while the Social Housing Subsystem was established as a strategy of de-commodification of housing in order to ensure housing rights for groups which – because of its social vulnerability - , were not included in the market as consumers.

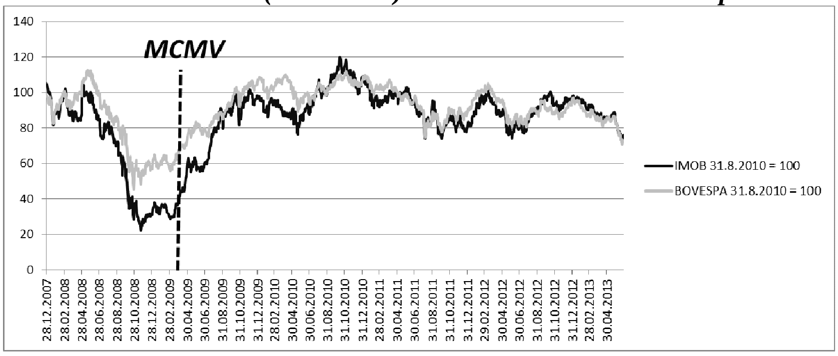
Despite the National Social Housing System, the Federal Government yielded to political pressures from the construction industry and launched the Minha Casa Minha Vida (MCMV) program in 2009. This program was based on the availability of a Social Housing Subsystem resource for construction and trade of affordable housing. In fact, the housing de-commodification strategy was eliminated and all resources assigned to public provision were turned into a credit program, dissociating it from its territorial and social purposes.

The Minha Casa Minha Vida Program changed the logic of social housing established by the National Housing Plan. The meaning of social housing became synonymous with “affordable house”, increasing the demand through new artificial consumers (subprime). In this sense, the real estate market became responsible for the whole housing production; all the urban policies established by SNHIS lost political importance and, finally, were residualized.

The Minha Casa Minha Vida Program (MCMV) attempted to expand the housing demand through mortgage financing for households with income ranging from three up to ten minimum wages. To safeguard financial agents, the government created the Housing Guarantee Fund, providing resources for the payment of benefits in case of default by unemployment and other eventualities. With this, the recovery of construction companies’ liquidity in the stock market was immediate.

[12]Housing demand is understood as the amount of housing units in the market sought by households willing to purchase or rent.

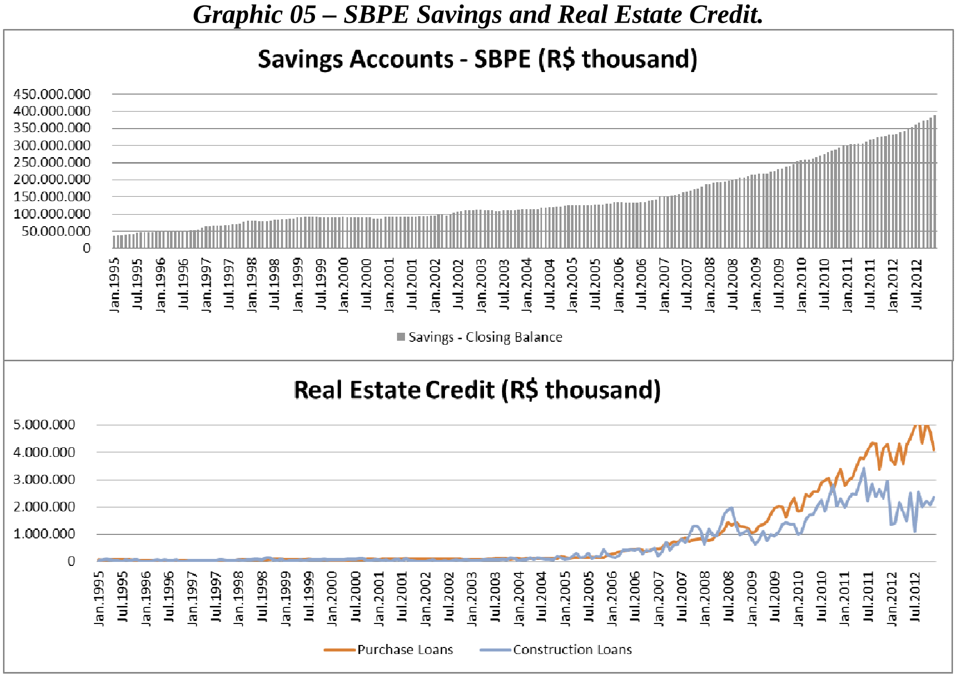
***Graphic 04 – Stock Market Index (BOVESPA) and Public Real Estate Companies Index(IMOB)***




Source: BOVESPA

Indeed, the subprime crisis did not affect the Brazilian domestic economy as affected the US and other leading economies, given there was no serious inflection in savings' levels (Graphic 05) or downward trend in unemployment. The most serious effects were felt by the decrease in commodity exports and in trade on the stock exchange. Even so, the Government supported the growth of the economy, absorbing the international crisis' impact through policies that promoted the expansion of the domestic consumption. They made it possible by increasing credit by the public banking system and reducing taxes for strategic areas of the economy, such as the automotive and the construction industry. In the case of the construction sector, the MCMV program yielded credit and subsidies for construction and consumption of one million new housing units in a year.

***Graphic 05 – SBPE Savings and Real Estate Credit.***

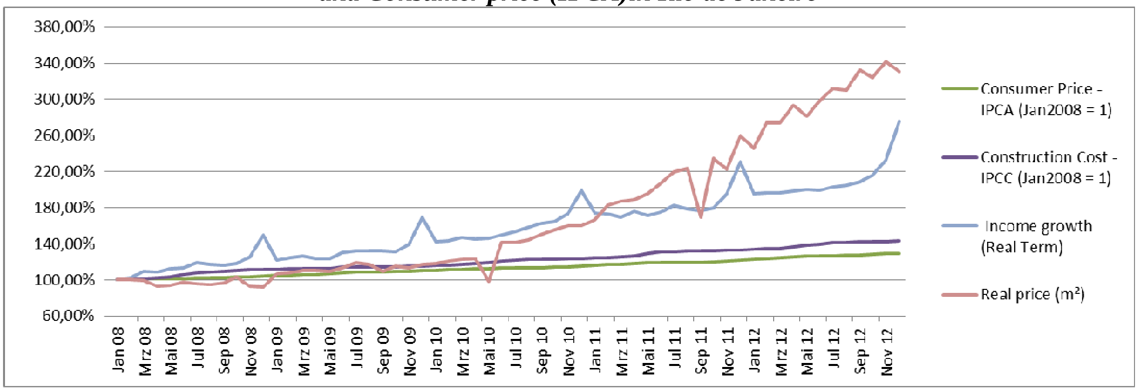



Source: Brazilian Central Bank.

A very important point to be highlighted is that the goal aimed by the Federal Government was set without taking into consideration the stock of new units available. Considering the fact that the production cycle lasts approximately two years, the MCMV created a gap between supply and demand. As a consequence, the MCMV program caused a shortage of (stock units) in the market, which influenced the trend of rising prices. Using the city of Rio de Janeiro as an example, there - between January 2008 and December 2012 - the prices of square meter for residential dwellings increased in real terms from R$ 4.156,38 to R$ 16.805,47 (an increment of 230.26%).

Considering the main macroeconomic variables, the magnitude of the rise in housing prices cannot be justified by income, construction costs or losses recorded due to inflationary processes. It is possible to observe, in Graphic 06, that after 2010, when the first projects of MCMV began to be commercialized, the housing price displaced itself from the construction cost, showing that most of MCMV mortgages during the first year fed a speculative "bubble", and the launch of new units exercised a multiplied effect over the trend. Regarding the argument of demand growth, this increase is also not enough to explain the rising of prices, since the growth of price affects negatively the demand and is reflected also in the pace of construction costs and consumer prices.

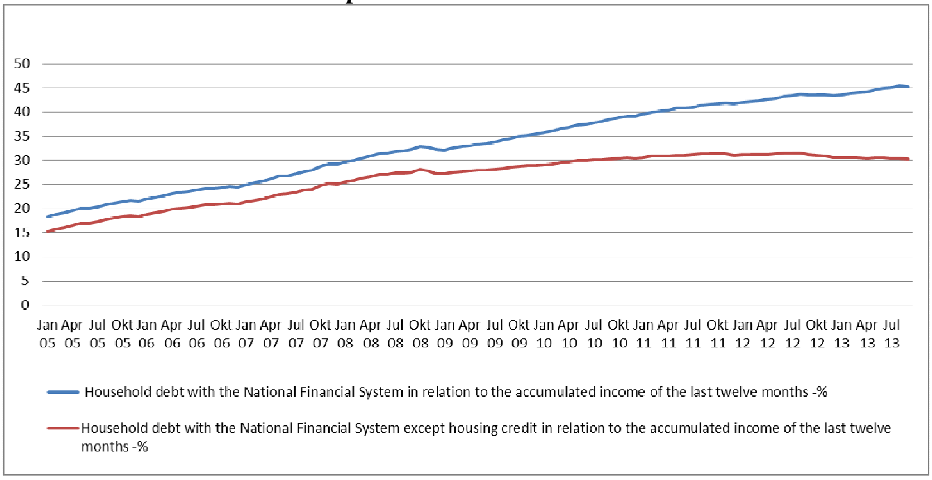
***Graphic 06 - Real price annual growth (m²), income growth, Construction Cost (IPCC) and Consumer price (IPCA)in Rio de Janeiro***




Source: FIPEZAP, IBGE, FGV.

To demonstrate the declining of house affordability, we can also see that the cost of housing in recent years started to have a greater weight in the family budget (see graphic 07). One important finding concerns the recent study conducted by the João Pinheiro Foundation (2014), which pointed out that even with the housing boom and economic growth the housing needs between 2008 and 2013 grew by 1.5 million housing units.

***Graphic 07 – Household debt***




Source: Brazilian Central Bank

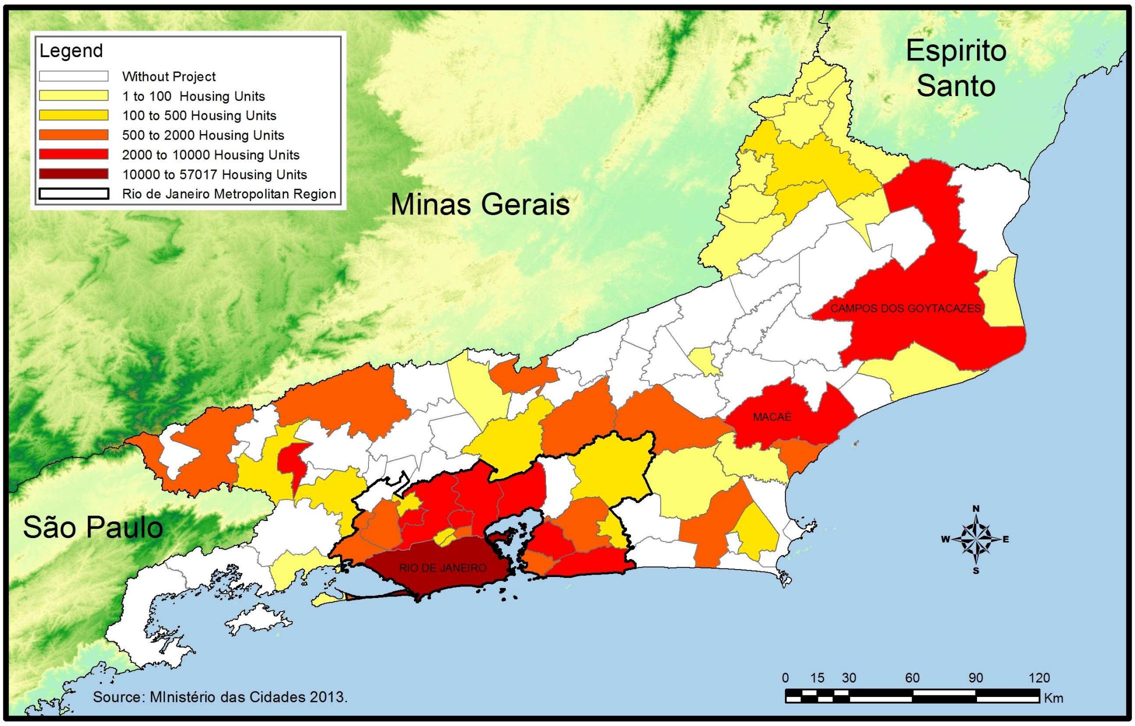
## 5. The territorial impact of commodification of Social Housing

During the last years the housing policy in Brazil shifted from a collective provision held by the State towards individual responses based on the capacity of households to exercise choice in the housing market through credit.

The MCMV' loans were divided according to the income range of buyers and included a mix of low interests rates and direct subsidies. Considering that each income range has their own limit of credit, the market will also establish patterns of projects to fulfill those limits, ensuring their margin of profit. This strategy will reflect on urban and regional dynamics and will establish a specific spatial pattern.

To understand the territorial outcome of a market-based housing policy we will use the State of Rio de Janeiro and its capital (Rio de Janeiro) as object of empirical study. The Census database and the list of MCMV production loans' contract were also used in this analysis. Establishing the spatial distribution of MCMV projects in regional scale, it was perceived that the production was concentrated in municipalities with significant economic dynamics, such as Rio de Janeiro, Campos dos Goytacazes and Macaé, or along the axes that link these spaces (Rio de Janeiro toward Sao Paulo or Rio de Janeiro toward Macaé and Campos dos Goytacazes[13]).

***Figure 04 – State distribution of MCMV units***




As we can see in Figure 04, this kind of outcome shows one of many contradictions that lie in a market-oriented policy. Normally, the housing problem is more intense in territories in which its economy is shattered economy and that present high unemployment rates, a low mean income, low tax revenues and low savings. Accordingly, most of households cannot become borrowers and cannot be constituted as demand. In this sense, homebuilders have no interest in developing housing projects in these towns. As a consequence, the poorest cities were not benefited by "social" housing programs.

Another analysis that we can draw, considering the regional scale, is regarding the concentration of housing production. As it is possible to observe in Table 01, 73.54% of all MCMV units were built in only six cities. Considering that the State of Rio de Janeiro is formed by 92 municipalities and 43 cities were not contemplated with projects, we can assert that this housing policy tends to adopt a selective – if not restrictive - pattern. The Table 02 shows that most of MCMV units are concentrated in

[13] These two cities are major petroleum producers.

the Metropolitan Region of Rio de Janeiro which induces us to examine more accurately what is happening in this area.

***Table 01 - Distribution of MCMV units***

| No. of housing units' hired | No. of municipalities per range | No. of units in each range | Relative percentage |
|---|---|---|---|
| 1 a 100 Unid. | 15 | 765 | 0,64% |
| 100 a 500 Unid. | 11 | 3.053 | 2,54% |
| 500 a 2.000 Unid. | 12 | 12.975 | 10,81% |
| 2.000 a 5.000 Unid. | 5 | 14.975 | 12,47% |
| 5.000 a 10.000 Unid. | 5 | 31.552 | 26,28% |
| 56.733 Unidades | 1 | 56.733 | 47,26% |
| **Total** | **49** | **120.053** | **100,00%** |

Source: Ministério das Cidades (2013)

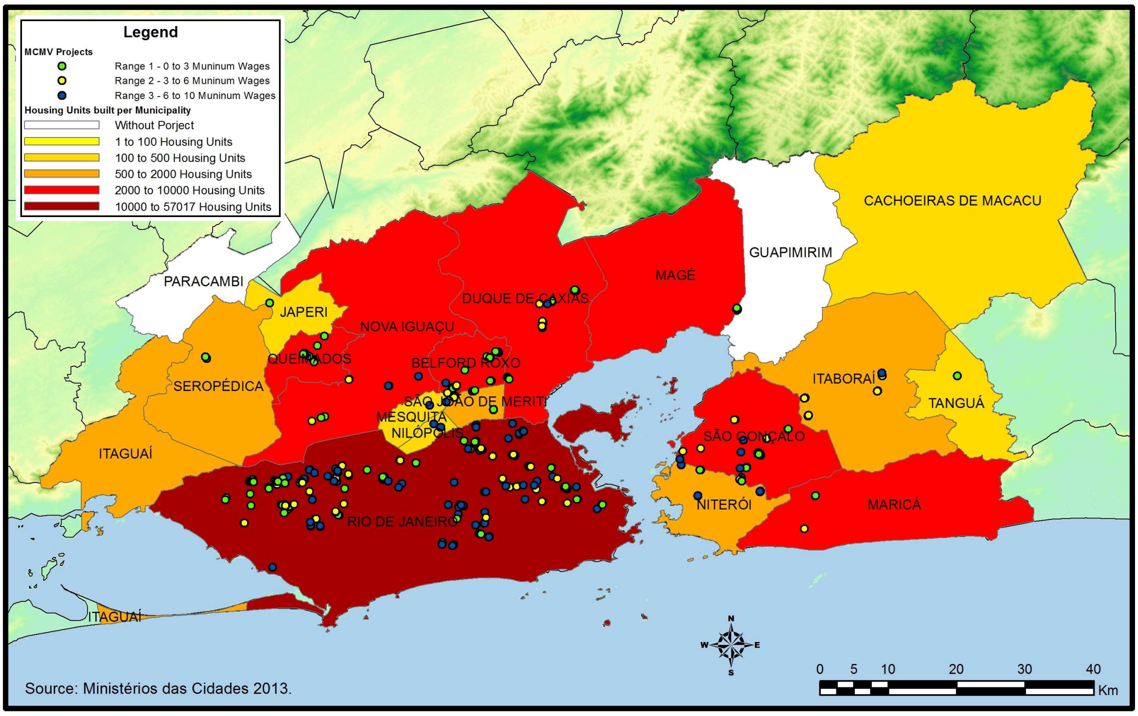
***Table 02 –The ten cities that concentrate most units***

| Cities | Regions | Nº of units | Relative percentage |
|---|---|---|---|
| **Rio De Janeiro** | **Rio de Janeiro Metropolitan Region** | **56.733** | **47,26%** |
| **Belford Roxo** | **Rio de Janeiro Metropolitan Region** | **9.475** | **7,89%** |
| **São Gonçalo** | **Rio de Janeiro Metropolitan Region** | **6.056** | **5,04%** |
| **Duque De Caxias** | **Rio de Janeiro Metropolitan Region** | **5.596** | **4,66%** |
| **Nova Iguaçu** | **Rio de Janeiro Metropolitan Region** | **5.309** | **4,42%** |
| Macaé | Fluminense's Northwest | 5.116 | 4,26% |
| **Queimados** | **Rio de Janeiro Metropolitan Region** | **3.872** | **3,23%** |
| Campos Dos Goytacazes | Fluminense's Northwest | 3.613 | 3,01% |
| **Magé** | **Rio de Janeiro Metropolitan Region** | **2.782** | **2,32%** |
| Volta Redonda | Middle Paraíba | 2.629 | 2,19% |
| ***Accumulated*** | | ***101.181*** | ***84,28%*** |

Source: Ministério das Cidades (2013)

The Rio de Janeiro Metropolitan Region presents a great degree of conurbation between municipalities, and works as a single urban organism. In this sense, the territorial distribution of housing projects in the metropolitan area will show the intra urban character.

*Figure 05 – Distribution of MCMV projects in Rio de Janeiro Metropolitan Region - RJMR*




Considering that the housing projects of MCMV program are divided according to the household's income range (0-3 minimal wages, 3-6 minimal wages and 6-10 minimal wages), the territorial distribution of housing projects will be defined according to the price of land. In order to maintain the profit margins, the projects for lower income will be located on cheaper land, those that are usually located in the urban periphery, with lack of services and urban infrastructure. In the other hand, the ventures built for higher-income families will be located closer to urban centers. Projects that were built on central areas generally are located within the perimeter or on the edge of a slum.

This pattern followed by homebuilders establishes a process of urban segregation. The argument of free will and liberty of consumer choice turn into a cynical fallacy, once the periphery is the only space left for poorer households to establish themselves. There is no trade-off, considering the precariousness of transportation, lack of jobs, schools, health facilities, infrastructure and leisure. The homeowner receives a new house and a debt. This process of segregation is also reinforced by evictions as consequence of the realization of megaevents and/or megaprojects. Many settlements located in sites where the 2014 World Cup or 2016 Olympic games projects, infrastructure and works are been built - or that are somewhat attractive to the real estate sector - are been systematically exchanged for MCMV projects located in the peripheral areas of the cities.

However, this kind of process can be even more perverse if we consider the metropolitan dynamics. Considering that the Metropolitan Area is formed by an aggregated set of different municipalities, it is important to evaluate which kind of impact this production exerts on the municipal housing stock and also on the institutional capacity of local governments to address the demographic impact and the changes in the urban structure. Although the public finances in these cities works separately, each city has to address problems generated by the whole agglomeration. In this sense, it was perceived that in relative terms, peripheral municipalities with a low level of human development, with low economic dynamics and little capacity of tax collection suffer the highest increase of stock (see Table 03).

***Table 03 – Socio-economic characteristics of RJMR's municipalities***

| Cities of Rio de Janeiro's Metropolitan Area | Housing stock | Housing Deficit | % of housing deficit related to housing stok | Nummer of MCMV units | Impact of MCMV units over stock | Human Development Index | 2011 Municipal GDP (R$ Thousand) | % of Municipal GDP related to RJ Metropolitan Area |
|---|---|---|---|---|---|---|---|---|
| **Queimados** | **42.209** | **5.036** | **11,93%** | **3.872** | **9.17%** | **0,68** | **1.880.343** | **0,62%** |
| **Belford Roxo** | **145.677** | **17.332** | **11,90%** | **9.475** | **6.50%** | **0,68** | **4.925.137** | **1,63%** |
| **Maricá** | **42.810** | **4.677** | **10,93%** | **2.079** | **4.86%** | **0,77** | **2.680.607** | **0,89%** |
| **Tanguá** | **9.658** | **1.297** | **13,43%** | **462** | **4.78%** | **0,65** | **337.826** | **0,11%** |
| **Magé** | **70.394** | **12.839** | **18,24%** | **2.782** | **3.95%** | **0,71** | **2.331.997** | **0,77%** |
| Itaguaí | 33.910 | 2.528 | 7,46% | 1.205 | 3.55% | 0,72 | 3.808.427 | 1,26% |
| Seropédica | 24.256 | 2.491 | 10,27% | 646 | 2.66% | 0,71 | 939.381 | 0,31% |
| **Rio de Janeiro** | **2.144.445** | **134.767** | **6,28%** | **56.733** | **2.65%** | **0,80** | **209.366.429** | **69,29%** |
| Mesquita | 53.103 | 4.486 | 8,45% | 204 | 0.38% | 0,74 | 1.602.615 | 0,53% |
| Nova Iguaçu | 248.186 | 1.284 | 0,52% | 5.309 | 2.14% | 0,71 | 10.245.868 | 3,39% |
| Duque de Caxias | 269.353 | 32.522 | 12,07% | 5.596 | 2.08% | 0,71 | 26.628.610 | 8,81% |
| São Gonçalo | 325.882 | 26.816 | 8,23% | 6.056 | 1.86% | 0,74 | 11.580.995 | 3,83% |
| **Itaboraí** | **69.422** | **12.594** | **18,14%** | **1.169** | **1.68%** | **0,69** | **2.618.852** | **0,87%** |
| **Japeri** | **28.409** | **7.310** | **25,73%** | **436** | **1.53%** | **0,66** | **978.211** | **0,32%** |
| São João de Meriti | 147.450 | 8.863 | 6,01% | 1.768 | 1.20% | 0,72 | 5.840.166 | 1,93% |
| Niterói | 169.237 | 21.682 | 12,81% | 1.577 | 0.93% | 0,84 | 14.563.396 | 4,82% |
| Nilópolis | 50.514 | 2.190 | 4,34% | 346 | 0.68% | 0,75 | 1.813.485 | 0,60% |
| **TOTAL** | **3.874.915** | **321.475** | **8,30%** | **99.715** | **2.57%** | * | **302.142.344** | **100,00%** |

Source: IBGE, FJP, CAIXA and PNUD.

Whereas the metropolitan area has a cohesive urban structure and a unified dynamics, what is happening represents the transferral of deficit among RJMR's municipalities. Some cities are receiving low income population from Rio de Janeiro, Duque de Caxias and Niterói which led to a huge impact on public finance and urban development. In this sense, the existence of social housing projects does not represent the decreasing of housing deficit or increasing in revenues, but the aggravation of the state's capacity for providing urban services. Low income families do not generate revenues but spendings, considering the need of enlargement of infrastructure and social services. The deployment of MCMV in the long term will result in a deepening of territorial inequalities or, in the worst case, “favelization” of MCMV projects.

**Conclusion**

During the 1980s and 1990s, the Brazilian economy has undergone profound transformations. Among them we may include the legal framework that allowed the financialization of real estate activities. Considering the downturn in Brazilian economy and the shortage of capital to financing housing production and consumption, the construction companies adopted a new organizational structure that included financial agencies as a part of their organizational structure. This strategy was a consequence of Self-financing, as experienced in the previous years and it was a way to fundraise capital to finance the production and generate housing demand.

The housing financialization was fully established when Brazil entered in a sustained economic growth process. With this, the demand increased and many construction companies went public. As a strategy to increase productivity, those public companies spread their activities through joint ventures made all over the country. This process resulted in a property boom in the middle of the 2000s.

Nevertheless, the subprime crisis affected the housing sector. In order to rescue the sector’s companies and provide liquidity to them, the Brazilian Government launched a new marked-based social housing program. This program represented an overturn in National Housing Policy and established the market as the main social housing developer.

Among the consequences of this kind of housing policy, we can highlight the increasing of housing prices and the reinforcement of urban segregation. The dynamic of a market-oriented policy showed impacts on urban and regional spheres, acting exclusively over dynamic spaces. Another important finding concerned the capacity of municipalities to address the urban problems generated through the increase in housing stock and overload of urban services and basic infrastructure, leading to a future degeneration worsening of the urban environment.

**References**

BOTELHO, Adriano. O urbano em fragmentos: a produção do espaço e da moradia pelas práticas do setor imobiliário. São Paulo: Annablume; Fapesp, 2007.

BRESSER PEREIRA, L.C & NAKANO, Y. Hiperinflação e estabilização no Brasil: o primeiro Plano Collor. Revista de Economia Política, v. 11, n°4 (44), outubro-dezembro, 1991.

Bujang, A. A., Zarin, H. A & (2010). THE RELATIONSHIP BETWEEN DEMOGRAPHIC FACTORS AND HOUSING AFFORDABILITY. Malaysian Journal of Real Estate, Volume 5, Number 1

FIX, M. Financeirização e transformações recentes no circuito imobiliário no Brasil. Tese de Doutorado defendida pela Universidade Estadual de Campinas. Ano de Obtenção: 2011.

GIGLIO, E. M., GAMBA, J. R. Cooperativas Habitacionais: Histórias, Dificuldades e Prognósticos na Perspectiva de Redes de Negócios. 13ª Conferência Internacional da LARES, Sao Paulo, 2013.

Myers, D. (1990), Housing Demography – Linking Demographic Structure and Housing Markets, the University of Wisconsin Press, Wisconsin.

PAIVA, C.C. de. A diáspora do capital imobiliário, sua dinâmica de valorização e a cidade no capitalismo contemporâneo: a irracionalidade em processo. Tese de doutoramento defendida no Departamento de Economia da UNICAMP, 2007.

PEREIRA, J. Cooperativas agroindustriais e pequenos produtores: velhos dilemas e novos contextos. In: BRAGA, M.; REIS, B. (ORG) Agronegócio cooperativo: reestruturação e estratégias. Viçosa: UFV/DER, 2002, p.119-139.

RIBEIRO, Luiz Cesar de Queiroz. Dos cortiços aos condomínios fechados: as formas de produção da moradia na cidade do Rio de Janeiro. Rio de Janeiro: Civilização Brasileira, 1997.

ROYER, Luciana de O. Financeirização da política habitacional: limites e perspectivas. Tese de doutorado, São Paulo, USP, Faculdade de Arquitetura e Urbanismo, 2009.

Sirat, M. et. al. (1999). Low Cost Housing in Urban Industrial Centers of Malaysia, University Sains Malaysia Publications.

SHIMBO, Lucia F. Habitação social, Habitação de mercado: a confluência entre Estado, empresas construtoras e capital financeiro. Tese de Doutoramento, Escola de Engenharia de São Carlos - Universidade de São Paulo, 2010.

STRACHMAN, E. e VASCONCELOS, M. R. "Reestruturação do Setor de Serviços Financeiros em Nível Mundial: Caracterização, Regularização e Consequências para as Discussões junto ao GATS". In Tironi, Luís F. (Org.). Aspectos Estratégicos da Política Comercial Brasileira. Brasília: Ipea/IPRI. 2001, p.17-99.

VALENÇA, Márcio Moraes ; BONATES, Mariana Fialho . The trajectory of social housing policy in Brazil: From the National. Housing Bank to Habitat International, v. 34, p. 165-173,