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A HISTORICAL REVIEW OF BRAZIL'S MORTGAGE REGULATION, FINANCIAL INSTITUTIONS AND HOUSING MARKET 1998 TROUGH 2008

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Abstract

Home purchase often involves a huge sum of money. It is quite often that we need to rely on the banks and other financial institutions to provide monetary support. At the same time, many commercial banks earn a huge sum of money via mortgage services. The high inflation rate in Brazil, however, leads to a high transaction costs in mortgage market. This paper firstly reviews the mortgage system in Brazil, including the relevant laws and policies. Followed by a detail analysis on factors which affect the mortgage system such as inflation rates, number of housing units transactions and amount of money.

Keywords: Brazil, mortgage, housing finance, law

1. The role of mortgage: a global perspective

Residential mortgages play an important role in macroeconomics, financial institutions stability and even energy efficiency in our built environment. For example, "energy efficient mortgages" were provided in the US since 1999 (Li 2012a). The availability of mortgage contributed significantly to short-run cycles in housing starts (Fereidouni 2011). Mortgages are a major fraction of bank assets (Campbell 2012) and mortgage services are one of the key area in in the modern banking industry (Li 2012b). In view of the huge markets, several online system such as Real Estate Wiki provides information to mortgage providers (Li 2010). As the low-income groups may reduce or delay the demand for dwelling purchases when residential prices rise (Lauridsen et al. 2009) due to lack of wealth (Buttimer 2004), borrowing constraints (Wood et al. 2006), mortgage brokers seldom lent to households without adequate assets or income (Li 2012c). A good mortgage loan is usually backed by property whose sale is sufficient to repay the lender promptly even if the borrower defaulted the interest or principal payment (Sternberg 2013). The willingness of these households to borrow depends on many different factors, underpinned by interest rates (Chen 2011; Yates and Berry 2011). This is because individuals would take mortgage or loans with uncertainty of interest rates which affect their rate of returns (Olweny et al. 2013). Furthermore, household income affects their ability to pay for the mortgage (Li and Li 2012) which implies that economic depression may also affect their incentive to apply for mortgage. Likewise, banks tries to tighten the lending policies in times of recession where they can foresee the large number of mortgage defaults (Nayeem et al. 2009). To hedge against the possible risks, real estate investment trusts with the mortgages as the underlying asset is available in the market (Li and Li 2011).

In 2007, the loss of confidence in mortgage and poor pricing of the mortgage products among the US investors in the value of sub-prime mortgages caused a liquidity crisis (Karamujic 2010; Thangaraj and Chan 2012). The consequences of the poor government mortgage can be immense: the subprime mortgage crisis originated in the US has spread to other financial markets (Köhn and Pischke 2011). The incident also raised the concern of our general public on the mortgage policies implementation and design. Nevertheless, the impact of mortgage regulations and policies in different countries varied. For example, although the Chinese government claimed that up to 70% of the urban public housings were privatized by 2000, the privatization program was not successful in the early days. It was because the Chinese lacked of money to pay for both the mortgage down payment and monthly payments (Buttimer 2004) which reflected the importance of mortgage in privatization (Green and Wachter 2005). In spite of these bad precedents, the government still try to encourage house purchasing among the temporary population by providing a more flexible and favorable mortgage policy (Cook et al. 2013). This paper aims at revealing mortgage regulation, financial institutions and housing market 1998 through 2008 in Brazil.

2. Brazil’s financial and mortgage market

Brazil is Latin America’s largest economy. During the first half of the twentieth century, its monetary system were marked by an incestuous relationship between the federal government and the gargantuan state-owned Banco do Brasil that combined the functions of development agency, commercial bank and the poor monetary authority.

Because of the recurring domestic and international pressures in the 1930s and 1940s to create some form of central bank to guide monetary policy, the government established the Superintendence of Money and Credit (Taylor 2009). In the past, mortgage lending was pretty impossible in Brazil due to the high inflation rates. Moreover, mortgage lending in Brazil had been restricted to the housing finance granted by the Housing Finance System (HFS) which was introduced in 1964. As inflation rate remained at a high level from 1970 and accelerated to an extreme level in 1981, a lot of new policies implemented to strengthen the mortgage system. Nevertheless, it went up again in 1990. In 1994, the implementation of Real Plan successfully relieved the high inflation pressure. In the same year July, the economic stabilization process implemented with the Plano Real, enabled the development of new sources of finance for the real estate sector, and implemented the secondary mortgage market in Brazil (Johnson 2006; Luiz 2000). All these policies minimized the insolvency risk and costs and motivate the mortgage market growth.

Figure 1 Annual Inflation (12-month percent change in implicit price deflator)

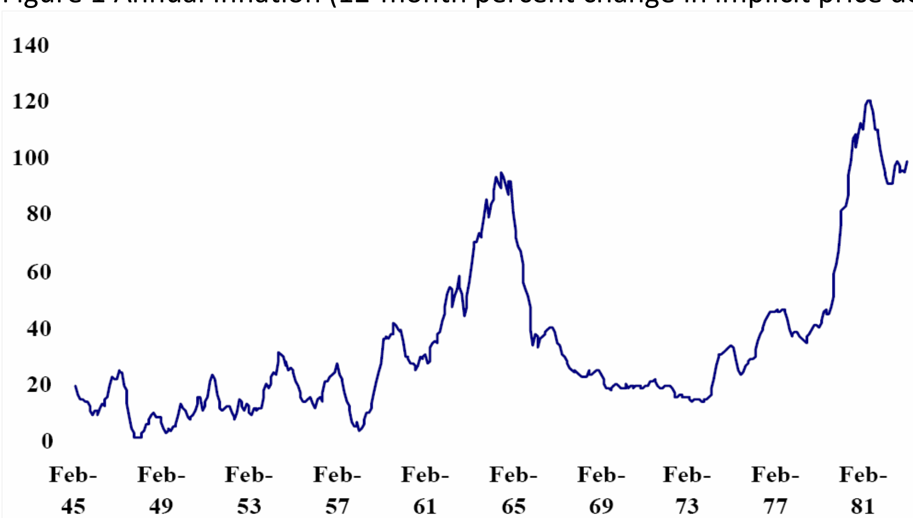
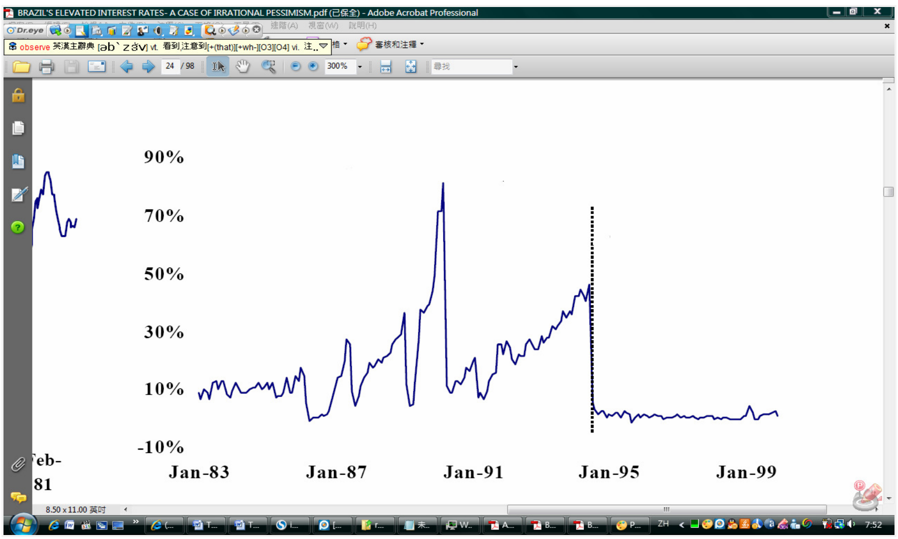


Figure 2 Annual Inflation (1-month percent change in implicit price deflator)



3. Financial Institutions in Brazil

Today, there are 41 financial institutions in Brazil, including the Federal Savings Bank (Caixa Econômica Federal) and one savings and loan association and state or privately owned multi-chartered banks. All these are authorized by the Banco Central do Brasil to raise savings deposits as their major funding source. The loans granted by the financial institutions with savings deposits are normally intended to the upper middle class families. These institutions are subjected to the National Monetary Council (Conselho Monetário Nacional) and Banco Central regulations and supervision (Luiz 2000).

Institution	Capital Ownership	Type of financial institution
Federal Savings Bank	Public	savings bank
Bradesco	Private	multi-chartered bank
Itaú	Private	multi-chartered bank
Nossa Caixa Nosso Banco	Public	multi-chartered bank
Real	Private	multi-chartered bank
HSBC	Private	multi-chartered bank
Unibanco	Private	multi-chartered bank
Banespa	Public	multi-chartered bank
Banestado	Public	multi-chartered bank
Banrisul	Public	multi-chartered bank
Banerj	Private	multi-chartered bank

Institution	Capital Ownership	Type of financial institution
Bandeirantes	Private	multi-chartered bank
BESC	Public	multi-chartered bank
BCN	Private	multi-chartered bank
Meridional	Private	multi-chartered bank
América do Sul	Private	multi-chartered bank
Poupex	Private	S&L
BankBoston	Private	multi-chartered bank
Finasa	Private	multi-chartered bank
Safra	Private	multi-chartered bank
Bilbao Vizcaya	Private	multi-chartered bank
Sudameris	Private	multi-chartered bank
BEMGE	Private	multi-chartered bank
Banestes	Public	multi-chartered bank
BMB	Private	multi-chartered bank
Baneb	Private	multi-chartered bank
Santander	Private	multi-chartered bank
BRB	Public	multi-chartered bank
Citibank	Private	multi-chartered bank
Bandepe	Public	multi-chartered bank
BEC	Public	multi-chartered bank
BEG	Public	multi-chartered bank
BANESE	Public	multi-chartered bank
Boavista	Private	multi-chartered bank
BEA	Public	multi-chartered bank
BIC	Private	multi-chartered bank
Banpará	Public	multi-chartered bank
BEM	Public	multi-chartered bank
Rural	Private	multi-chartered bank
BR	Private	multi-chartered bank
BEPI	Public	multi-chartered bank

Table 1 inancial Institutions of the Brazilian Housing Finance System (Luiz 2000)

4. **Related housing loans regulations and policies in Brazil**

The National Monetary Council established strict rules for the use of these deposits (Table 2 & Table 3). Apart from these rules, conditions of the loans made under the HFS are also established by the National Monetary Council (Luiz 2000).

100%	100%	**Savings Deposits**	
15%	15%	**Reserve Requirement**	Deposited at the Banco Central
60% of which:		**Real estate financing loans**, out of which:	Loans to finance the purchase, remodeling or building of residential and non-residential units as follows:
80%	48%	minimum 80% to HFS loans (construction and purchase)	Loans subject to fixed interest rates and some conditions established by the National Monetary Council
20%	12%	20% to free interest rates loans, of which 50% may be housing finance (construction and purchase) and 50% non-residential real estate units	Loans freely negotiated between the contracting parties. There are no limits as to real property value or amount of financing.
Approx 25%	12.5%	free reserves	cash or government securities
	12.5%	loans to real-estate-related activities and home equity loans	short term loans at market rates

Table 2 Use of Savings Deposits by the Brazilian Housing Finance System (Luiz 2000).

Conditions of loans	Details
Interest rates	12% per annum for individuals purchasing a home or 13% per annum for builders constructing flats for residential purposes.
Principal and	Adjusted monthly by the same index that is applied

installment	to saving deposits
Maximum Loan to Value (LTV)[1]	90% (market practice is 50% to 60%)
Maximum term	48 months for production and 20 years for purchase (market practice is 10 to 12 years for purchase)
The collateral of the loan	The mortgage of the unit being financed.
Insurance policies	Life and permanent disability of the borrower(s) and damages to or losses of the real property unit being financed.

Table 3 the conditions of the loans made under the HFS are also established by the National Monetary Council (Luiz 2000).

5. Housing Finance and Real Estate Credit outside the Housing Finance System

In early 90's, new funding source for real estate financing, the Real Estate Investment Funds have been introduced in Brazil in 1993 under the Law 8668/93. By 2000, there were 30 such funds and most of them finance non-residential projects. The scope of each fund is limited to the project for which it was set up (Luiz 2000). These funds were then sold to investors as pension funds. Besides, the National Monetary Council also regulated the formation of the mortgage companies. These mortgage companies were not allowed to receive money source from savings deposits, thus their funding sources are mortgage bill (letras hipotecárias), debentures, foreign loans and other loans. Although mortgage companies were forbidden to receive saving deposits, they were allowed to use their funds in any types of real estate financing. In 1997, the Real-estate-receivables-backed debentures started being issued by Special Purpose Vehicles, provides funding for a couple of real estate developers. However, the high interest rates and the large devaluation of the Real in early 1999 slowed down this new debenture issues (Luiz 2000).

6. The Secondary Mortgage Market in Brazil

The secondary mortgage market was introduced by Law 9514 on 20 November, 1997. The law lays down a comprehensive legal framework for changing the mortgage industry in Brazil. It introduces a new securitization vehicle that aims at improving

[1] Loans must be made to finance the construction or purchase of residential units only.

liquidity in the mortgage market. Based on this piece of law, Companhia Brasileira de Securitização (CIBRASEC) was created as an instrument to guide the financial institutions to the legal requirements related to housing loans (Rodrigues 2000). The CIBRASEC purchased real estate credits and receivables from mortgage companies, banks, real estate credit companies, saving banks and savings and loan associations. It also issues securities which are guaranteed by such credits and receivables (CRI) (Luiz 2000). The creation of such secondary market allows allocation of the risk and returns of the mortgage market across more market participants than that would be in the primary market. The shareholders of CIBRASEC are the major private and public institutions in the Brazilian financial market which experienced in housing finance loans, as well as some small regional mortgage companies specialize in savings and housing finance (Luiz 2000). Even CIBRASEC does not have an exclusive right to issue CRIs, it is the major force in the creation of the standardized mortgage-backed securities market (Dubitsky and Posch 1998).

7. Housing Financing Level

There are more private sectors participating in the housing finance. However, the table provides data on the housing financing level according to the funds provider source (public or private) from 1988 to 2008. It can be seen that even though there are fewer public sectors, the distribution of the housing financing between the public and private lenders is always surprising imbalance, i.e. public lenders as the dominant one, due to the aggressive action of the Federal Savings Bank in providing funds for housing (UN Habitat 2010). And that even the total percentage of the housing financing level of the public sectors had a slightly decreased in 2001, they are able to maintain the dominant role in the lending of funds, and the percentage has been rising again afterwards.

Year	Public, mainly Federal Savings Bank		Private	
	BRL million	(%) of total	BRL million	(%) of total
1988		68.4%		31.6%
1989		70.3%		29.7%
1990		67.2%		32.8%
1991		67.7%		32.3%
1992		71.4%		28.6%
1993		75.0%		25.0%
1994		74.9%		25.1%
1995	407,689	76.1%	127,840	23.9%
1996	450,083	78.1%	126,136	21.9%
1997	479,078	81.2%	110,547	18.8%
1998	514,908	82.6%	108,252	17.4%
1999	540,222	83.2%	108,714	16.8%
2000	576,493	83.6%	112,564	16.4%
2001	316,427	68.8%	114,764	31.2%
2002	181,505	62.8%	107,290	37.2%
2003	195,752	66.2%	100,014	33.8%
2004	206,028	67.9%	97,253	32.1%
2005	226,749	69.5%	99,543	30.5%
2006	286,401	72.8%	106,411	27.2%
2007	355,432	72.6%	134,434	27.4%
2008	461,716	71.2%	186,918	28.8%

Table 4 Housing Financing Level according to the Funds Provider Source (UN Habitat 2010)

8. Savings Deposits

Despite there was a decline in the savings deposits between 1990 and 1993, the amount of saving deposits rose. After the implementation of Real Plan, the increase in savings deposits is significant, showing that the Real Plan successfully stabilized the mortgage market. Thus, the total amount of savings deposits has nearly reached the level of US$ 80 million in 1997.

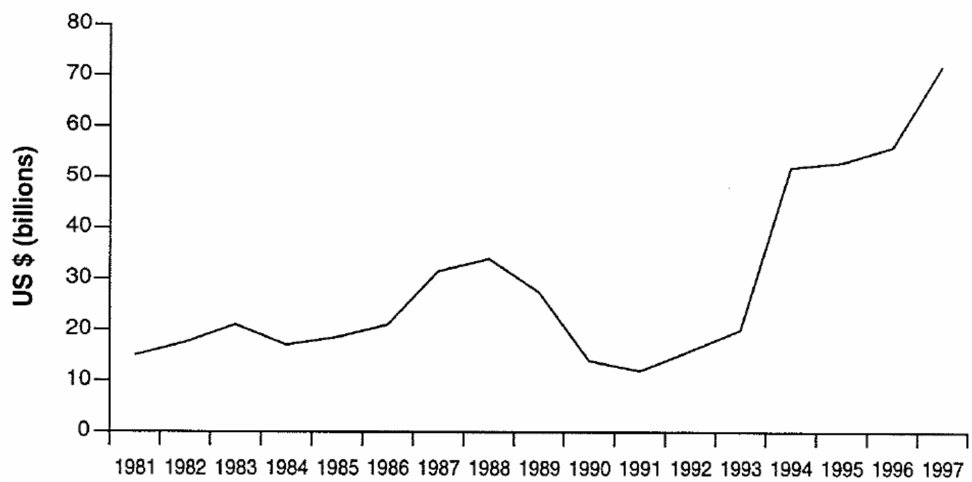


Figure 3 Saving Deposits under HFS (Luiz 2000).

9. Number of Residential Units Financed

According to the HFS, the loans could only be made to finance either the construction or purchase of residential units. Therefore, by looking at the number of residential units financed by HFS, we could know how well the system has been operating. The figure below shows the number of residential units financed by HFS from 1970 to 2008. There was an increase in number of residential units financed by HFS from early 70's and reached the peak in 1980 with over 600 thousand units. In 1983, there was a sharp decrease in the number of residential units financed by HFS. This might be the result of the disagreements in the change in volume of loans granted and the time limit for amortization of mortgage, which arose inflationary pressure. In 1993 was the worst point of the HFS, which only 58 thousands units was financed within the year. After the implementation of the economic stabilization process, the number of residential units financed grew slowly. In 1997, the residential units financed raised instantly from 68 thousands (in 1996) to 206 thousands. This is probably results of the Special Purpose Vehicles and Law 9514, which introduced the Real-estate-receivables-backed debentures and secondary mortgage market to Brazil respectively.

Year	Total Number of Units Financed	Year	Total Number of Units Financed
1970	157,230	1990	240,610
1971	117,590	1991	400,769
1972	124,489	1992	108,670
1973	157,801	1993	57,964

Year	Total Number of Units Financed	Year	Total Number of Units Financed
1974	96,205	1994	61,384
1975	141,929	1995	63,144
1976	273,763	1996	68,186
1977	267,713	1997	206,216
1978	337,649	1998	163,423
1979	383,223	1999	135,006
1980	627,342	2000	197,286
1981	465,398	2001	283,785
1982	541,129	2002	241,049
1983	77,247	2003	247,684
1984	86,358	2004	320,251
1985	59,657	2005	398,671
1986	106,662	2006	522,301
1987	231,232	2007	196,133
1988	280,083	2008	299,685
1989	99,706		

Table 5 Detailed Values of the "Number of Residential Units Financed by HFS" (UN Habitat 2010).

10. Amount Financed for the Construction and Purchase of Residences

Table 6 shows the amount (BRL million) financed for the construction and purchase of residences in Brazil from 1994 to 2008. It can be observed that the amount finance of residences was quite stable from 1994 to 2002 and grew substantially from 2005 to 2008.

Year	Construction	Purchase
1994	1,124	611
1995	826	1,051
1996	699	764
1997	857	868
1998	1,161	984
1999	758	916
2000	1,048	888
2001	666	1,216

Year	Construction	Purchase
2002	595	1,175
2003	965	1,252
2004	1,394	1,608
2005	2,855	1,997
2006	4,484	4,857
2007	9,401	9,009
2008	16,221	13,811

Table 6 Detailed Value of “Amount Finance for Construction and Purchase of Residences” (UN Habitat 2010).

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