

MORTGAGES, INSTITUTIONAL REFORMS AND THE *BANCO DO BRASIL* IN THE SECOND HALF OF THE 19TH CENTURY

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ABSTRACT

The institutional changes of the mid-19th century made the modernisation of the Brazilian economy possible, as well as that of credit relations. We sought to evaluate the mortgage market before and after the 1864 reform and the institution of the *Banco do Brasil's* mortgage portfolio in 1867. We found a very comprehensive market throughout the territory in 1855-1859, although concentrated in the main urban centres. The evidence shows the expansion of mortgages after the two measures taken, but at the end of the 19th century this expansion came to an end.

Keywords: institutions, mortgage, *Banco do Brasil*, mortgage reform

JEL Code: N26

RESUMEN

Los cambios institucionales de mediados del siglo XIX hicieron posible la modernización de la economía brasileña, así como de las relaciones crediticias. En este trabajo buscamos evaluar el mercado hipotecario antes y después de la reforma de 1864 y la institución de la cartera hipotecaria del Banco de Brasil en 1867. El trabajo muestra un mercado muy amplio en todo el territorio en 1855-1859, aunque concentrado en los principales centros urbanos. La evidencia presentada muestra la expansión de las hipotecas después de las dos medidas tomadas; sin embargo, a finales del siglo XIX hubo un parón en esta expansión.

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Palabras clave: instituciones, hipotecas, *Banco do Brasil*, reforma hipotecaria

1. INTRODUCTION

The political and economic stability of the Second Reign (1840-1889) provided conditions for a set of measures to modernise the Brazilian economy by the Imperial State, led by an elite formed mainly from the ruling class of large landowners and slaves¹. The imperial government promoted several institutional changes, such as the Commercial Code, Land Law and the end of the Atlantic slave trade in the middle of the 19th century, which had major repercussions on the economy. Although of a conservative nature, preserving slavery, these initiatives encouraged the development of the country, mainly in commercial, financial, industrial and transportation activities². Several credit institutions were created, many of them with rights to issue money, such as the *Banco do Brasil* in the early 1850s. Mortgages had been used since the beginning of the colonial period; however, the lack of publicity and specificity of debts made it difficult to develop this market. In this very fertile moment of new measures of the Second Reign, public registration began in 1846 by means of the inscription in the district of the properties given as collateral and the priority of payment according to the date of the registry³. This new law facilitated the spread of mortgages as a means of financing for different urban and rural agents. Subsequently, the mortgage reform of 1864 improved the registration system, through increased advertising and specialisation. Finally, the introduction of the *Banco do Brasil's* mortgage portfolio also boosted the financing of farmers, especially larger ones.

In this study, we analysed the use of mortgages before and after two measures: the mortgage reform of 1864 and the creation of the mortgage portfolio of the *Banco do Brasil* in 1867. We examined whether such government initiatives improved the Brazilian mortgage market. The 1860 Barriers Act, the 1864 financial crisis, and the difficulties in lending to farming motivated the conclusion of the lengthy discussion of mortgage reform in 1864 and, subsequently, a change in the role of the country's

¹ Mattos (1987) and Carvalho (2006). The growth of coffee exports and the end of a series of regional conflicts made it possible to think of a series of actions by the state.

² The large volume of capital previously allocated to the Atlantic slave trade was redirected, based on the Commercial Code, to new investments, boosting the formation of banks, utilities (railways, navigation and communications) and industry. The capital market expanded its business, encompassing stocks, debentures, public and private securities. The assets of the most fortunate people came to include these assets (Levy 1977; Mello 1990; Hanley 2005).

³ Decree 482 of 14 November 1846, regulates the functioning of the General Registry of Mortgages established in each of the counties of the Empire. All conventional mortgages should be registered, whether general or special. Judicial and legal mortgages were not contemplated.

main bank⁴. The *Banco do Brasil* did not make mortgage loans until 1866. In the context of the War of the Triple Alliance (1864-1870), the government negotiated, pressured and encouraged this institution to meet the demands of farmers. The bank was then reformed, and the mortgage portfolio was created to serve the large farmers in the south-east who were influential in the imperial government. The justification for these measures was the need to expand mortgages in terms of volumes borrowed, mainly for farmers. Thus, the two governmental interventions should have led to the expansion of the use of mortgages in the country but aimed at different groups. The first would have a larger impact on society and the other would be restricted to a more highly selective agrarian elite.

The availability of mortgage information increased as a result of the 1864 law, when the registry of mortgages experienced a far-reaching reorganisation which facilitated the preservation of this documentation. For the previous period, there was little quantitative data, limited to some very specific reports on the use of mortgages. In this paper, our objective is to analyse the mortgage information collected by the Secretary of Justice Paranaguá for the period from 1855 to 1859, in order to encourage the discussion of the reform of this regime. At this point, the registry had been operating for almost a decade, allowing a representative view of this new institution before the reform. For the period after 1864, we do not have reports for the country similar to those in Paranaguá and we used mainly the work of several researchers for specific counties.

The paper aims to discuss, in a first section, the mortgage negotiations in 1855-1859, that allow us to know the distribution of loans by the counties, their interest rates and the types of collateral. In addition to the information collected by Paranaguá, we used mortgage data from bank balance sheets and more qualitative information from newspapers to analyse the types of mortgage used at the time. Subsequently, based on the evidence of mortgages registered after the 1864 reform already made available in the literature, we compared these results with the information from Paranaguá. This allowed us to analyse the dynamics of the mortgage market in the second half of the 19th century in relation to exports, demography and money. Finally, we analysed the loans in the mortgage portfolio of the *Banco do Brasil* until the end of the Empire. We highlight the volumes transacted, destinations of resources and their representativeness compared with other loans of the institution.

⁴ Law 1,083 of 22 August 1860, restricting the issuing capacity of banks.

2. MORTGAGES (1855-1859)

The literature shows the use of mortgages since the colonial period. During the Empire, the use of this instrument grew alongside economic, financial and institutional development, such as the legal changes to the Commercial Code (1850) and, especially, the General Mortgage Registry (1846). This registry sought to remedy the lack of public knowledge about mortgages. This lack of information meant that mortgages were not widely used, due to the possibility of hidden mortgages arising that hinders the creditor's payment commitment. Such complaints had been recurrent since the beginning of the 19th century and inhibited the development of this type of credit. The publicity obtained with the creation of the public registry provided information to the creditor about debts already incurred by debtors, reducing information asymmetry. The priority of payment for creditors who first registered their mortgage also facilitated the debt enforcement process. Thus, more credit should have been available, more cheaply and with longer terms than before, because creditors had access to more guarantees and information.

After 1850, the creation of financial institutions specialised in real credit for agriculture aimed at boosting loans in this sector. This can be seen in the literature, showing that some of these banks operated significantly through mortgages in the 1850s, especially for urban real estate. Guimarães (2013, 2007) showed its use by the *Banco Rural* and the *Hipotecário do Rio de Janeiro* (created in 1854) and by the *Banco Comercial e Agrícola* (created in 1857), but at lower values than the other loans of these institutions. In 1856, the first bank discounted 184 mortgage bills with a term of up to 12 months and an interest rate in general of 10 per cent per year, totalling almost 2,000 *contos*⁵. Such amounts continued to increase until 1859, when they represented 2,800 contos in the balance of June of that year (Guimarães 2007, p. 36). Subsequently, the *Banco Rural* reduced its mortgage operations from 1860, following the changes in the economic policy of the barriers law⁶.

⁵ The *réis* was Brazil's currency until 1942. One *conto* is equal a 1 million *réis* (Guimarães 2007, p. 20). According to its statutes, the *Banco Rural* could lend on mortgages of rural properties in the province of Rio de Janeiro up to half the value of the property. For urban property in the Court and province of Rio de Janeiro, financing could reach two-thirds of the value of the guarantees. The bank's loans through mortgage notes between 1854 and 1859 amounted to 15,000 contos but represented one-tenth of the discounted bills (10.3 per cent) and a little more of the collateralised bills (13.1 per cent), *Brasil* (1860, pp. 56-57).

⁶ Mortgage operations continued, but interest rates were higher for mortgages, as the bank itself announced (*Jornal do Comércio*, 27 September 1863: 2).

Still in the Rio de Janeiro market, the *Banco Comercial e Agrícola* held only 240 contos in three mortgages on its balance sheet for August 1859⁷. In the Bahian province, in March 1860, the *Banco da Bahia* held 389 contos in urban mortgages and ninety-eight in mortgage bills, noting that this institution issued this type of bill as a way of raising funds for its loans⁸. Thus, some banking institutions operated mortgages in the main Brazilian markets, mainly that of Rio. However, the mortgage volumes tended to decline in relation to total borrowed and asset totals.

Most mortgages did not involve banks at that time. Ryan (2007, p. 89) did a great deal of research in the deeds of Rio de Janeiro debts throughout the 19th century, looking at mortgages in notary books since the second decade of this century. He noted a significant expansion of credit in general from 1840 to 1850, increasing from £145,000 to £240,000. Even before the impact of the major institutional innovations of 1850, there was a 65.0 per cent increase during the 1840s. Perhaps the institution of the 1846 mortgage registry may have contributed to this expansion⁹. Subsequently, the growth trend deepened, reaching 737,500 pounds in 1860. Even if we exclude bank debts, there was a total of £505,500 in 1860 (Ryan 2007, p. 100). Thus, most of the credit operated outside the banking system, although its presence was growing.

According to Ryan, the new banking institutions of the mid-19th century might have contributed to the dynamism of Rio's credit. However, the evidence for the year 1870 denotes a stagnation of credit in general (7.5 per cent growth in a decade), even with the approval of the mortgage reform and the new portfolio of the *Banco do Brasil*, as well as the expansionary monetary policy of the War of the Triple Alliance. Perhaps the devaluation of the national currency reduced the values in pounds in this decade. Finally, the author himself noted that the second registry did not record a bank debt until 1853, but, subsequently, less than 15 per cent of the loans that took place from 1853 to 1859 were recorded. Thus, this information highlights the reduced effect of the two measures in question in the 1860s on credit more generally in the Rio market.

Saraiva and Piñeiro (2014, p. 137), also for Rio de Janeiro, showed the wide use of mortgages in the city since 1821, totalling more than 2,000 until 1850. In the 1840s, more than 100 mortgages were signed each year, reaching a peak in 1846 of about 250. For Minas Gerais, Flausino

⁷ Guimarães (2007, p. 38). Of the three mortgages, one referred to buildings and warehouses in the Court and the other two to farms with all their properties and slaves in the province of Minas Gerais, Brasil (1860, p. 21).

⁸ *Diário do Rio de Janeiro*, 16 April 1860: 3.

⁹ The favourable economic conjuncture at that time for coffee exports and political stability after the beginning of the second reign also facilitated the growth of financing. The 1846 gold standard law demonstrates this improvement in the country's economic conditions.

(2006, pp. 34-35) verified sixty-four mortgage deeds in Mariana between 1850 and 1859, of which fifty-one only had slaves as collateral. In that period, the number of slaves recorded in all the analysed documents was 297. In the following decade, the number of mortgages did not increase, but the total number of slaves as collateral reached 456.

The newspapers of the period also show that mortgages were frequently used in different transactions, mainly urban ones. We have verified various mortgage loan offers and applications, generally with «free» collateral from any liens that could be verified in the public record. The newspaper published the response to the demand or offer on another day, informing the interested party to look for a specific address or even the publication's office¹⁰. The printed medium seemed to facilitate the meeting of interested parties, ensuring anonymity for creditors and debtors. The journals published the levy, the restriction on the sale of goods or the cancellation of the mortgage¹¹. In addition to providing information, the newspaper took on the role of an intermediary for business.

In the newspapers, various assets, mainly real estate, but also slaves, were regularly offered as collateral¹². We observe the occurrence of advertisements for loans with maritime risk and vessels as collateral, such as a galley with hull, keels and devices demanding 21.6 contos¹³. Finally, the government itself awarded mortgages to companies, such as a cotton fabric factory or arsenal¹⁴. Collateral values exceeded that of the loan, usually doubling it; but sometimes even higher values were announced, making it easier to obtain financing.

The *Jornal do Comércio* itself reported the cost of registering the mortgage deed as 3,000 réis¹⁵. The cost only seemed to restrict the smaller businesses. In certain cases, the ease of obtaining financing shocks was advertised: «*Money is given over with a reasonable premium, private money, with all the secrecy*» (*Jornal do Comércio*, 16 February 1855: 4).

Mortgages were used to discount bills, wages, pensions, *monte pio*, slave rentals, etc.¹⁶. They were also used to finance the acquisition of property, and this possibility was advertised. At that time, an anonymous text

¹⁰ *Jornal do Comércio* (20 April 1855: 4).

¹¹ O Cearense (12 February 1849: 4 and 11 November 1859: 4).

¹² There was the publication of an announcement to sell captives to pay debt: «*Large and important auction of 43 slaves for payment of mortgage*» (*Jornal do Comércio*, 26 January 1859: 3).

¹³ *Jornal do Comércio*, 21 de julho de 1855: 3. In the Government Records Ministry of the Empire there was a report of a mortgage on the steamers of the *Companhia Pernambucana Costeira a Vapor* in 1861 (*Edição* 27: 6).

¹⁴ *Jornal do Comércio*, 13 August 1855: 1 and 11 July 1857: 2.

¹⁵ 5 March 1855: 1.

¹⁶ In the announcement of 3 May 1855 of the *Jornal do Comércio* (1855: 4). «*does all kinds of business except jewellery; always have money to mortgage 1% of buildings*». The provincial Treasury also used the mortgage instrument to guarantee payment (Barreto 1859, p. 16).

reported the scope of business in the province of Rio de Janeiro: «*The registration of mortgages attests to the employment of more than 30,000 contos entrusted to guaranteeing the mortgage, only in the province of Rio de Janeiro*» (*Jornal do Comércio*, 25 October 1857: 2). Mortgage credit was, then, very common in the daily life of the Rio market.

The creation of the public mortgage registry in 1846 led to the establishment of specific offices for this purpose throughout the territory. According to the 1855 Ministry of Justice report, there were sixty-eight offices in different provinces (1856: A-B-110)¹⁷. Paranaguá (1860a, pp. 29-31) gathered aggregated data from 151 registry offices throughout Brazil; probably some had been newly created. These data included the mortgage debt, registered in several counties of the Empire according to the asset provided as collateral, contracted during 1855 and 1859¹⁸. These reports helped to ground the mortgage reform discussions under debate at the time.

According to information from Paranaguá referring to 1855-1859, 8,312 mortgages were awarded in Brazilian counties. Of this total, the vast majority of transactions exceeded 2 contos (60.8 per cent), the average being slightly over 8 contos. Thus, the amounts negotiated were concentrated in very high values, representing the possibility of buying many slaves at that time.

The amounts negotiated amounted to almost 68,000 contos, a significant figure¹⁹. Of this total, 40.3 per cent corresponded to mortgages on rural properties, while mortgages for urban buildings accounted for 35.1 per cent and those for movable goods and that whether moves 24.7 per cent. Urban financing proved to be quite relevant, although the country was characterised as an agrarian economy at that time. Thus, complaints from farmers about the scarcity of financing seem to be justified.

Paranaguá himself drew attention to the increase in debts without corresponding remissions, indicating an increase in debtors' insolvency, despite the more precarious quality of the mortgage payment information²⁰. On the other hand, the secretary reported high interest rates (1.5 per cent per month) on loans, reaching 4 to 5 per cent per month (Paranaguá 1860b, p. 122).

¹⁷ There was no information for Espírito Santo and Maranhão, but all the others held offices.

¹⁸ It was not possible for the author to separate the information by year.

¹⁹ The currency stock (M2) that included paper money held by the public, demand deposits and savings deposits reached 111,200 contos at the end of 1859, according to Peláez and Suzigan (1981, p. 397).

²⁰ The secretary himself stated that the payment information «it cannot serve as a rule or basis for any calculation; That is why, according to mortgage notaries themselves, many debtors fail to write off their mortgage deeds, even after they have redeemed their debts, generally settling for a receipt from mortgage lenders».

A consideration of the three types of asset given as collateral by district allows a view of the differences between the guarantees, especially for the more heterogeneous grouping «Other assets, movables and *semoventes* (slaves, animals etc.)». When mortgage values are listed according to these three types, it appears that rural mortgages did not correlate with the others (0.23 and 0.31). However, urban and other asset mortgages showed a significant correlation (0.88). Thus, the counties with higher values of mortgaged rural properties did not have proportionally large amounts of the other types of mortgages. Urban and other mortgages were correlated by counties. One possibility is that the movable and *semoventes* assets pledged as collateral for mortgages would concentrate diverse assets strongly related to the urban economy. Thus, this association of diverse and real urban properties reinforced the idea of a lower supply of credit for agriculture in relation to the importance of this sector in the economy.

A large number of provinces traded mortgages in very small amounts. In addition to the incipient economic and mainly financial activity in these regions, the delay in establishing and operating the registry may have contributed to less information. As can be seen in Table 1, ten provinces represented less than 1 percentage point of the total. Fifteen of the twenty-one provinces reached less than 4 percentage points. As expected, the most representative in terms of values were the province of Rio de Janeiro and the Neutral Municipality of the Court, accounting for more than half of the total amount negotiated (57.1 per cent). The coffee and sugar areas increased transactions in Rio de Janeiro, as almost all counties traded more than 1,000 contos. The major coffee centre of Vassouras reported greater values than the capital of the province, Niterói²¹. Thus, in the agricultural interior of Rio de Janeiro, high transactions were made for the time. Finally, the country's capital brought together a very large set of transactions guaranteed mainly by urban buildings and various goods.

In the other parts of the south-east, the economy of coffee sustained most of the mortgaged values observed. The most active counties in terms of mortgages for Minas Gerais were Paraibuna (currently Juiz de Fora) and Pomba in Zona da Mata, totalling more than 1,000 contos each. Still in the region of Minas Gerais, Muriaé traded just over 800 contos. In São Paulo, Campinas alone held more than 1,000 contos, but Bananal, Mogi Mirim and Guaratinguetá reached amounts between 500 and 800 contos. In Bahia, as well as the capital, Salvador, several counties of the Recôncavo also stood out; mainly Santo Amaro with more than 1,000 contos and Cachoeira with just over 500. Finally, Rio Grande do

²¹ The only exception was Itaboraí, with 450 contos.

TABLE 1
DISTRIBUTION OF VALUES REGISTERED BY PROVINCE (1855-1859)

Province	Total values	%	% Rural/ Total
Amazonas	65.842	0.10	4.70
Pará	1,176.618	1.74	24.20
Maranhão	1,139.972	1.68	35.90
Piauí	201.452	0.30	35.70
Ceará	674.958	1.00	65.90
Rio Grande do Norte	148.369	0.22	56.10
Paraíba	437.966	0.65	42.30
Pernambuco	2,394.170	3.53	38.10
Alagoas	364.441	0.54	39.30
Sergipe	792.593	1.17	51.00
Bahia	5,911.741	8.72	39.90
Espírito Santo	371.079	0.55	54.70
Rio de Janeiro	21,523.375	31.74	63.00
Município Neutro	17,196.412	25.36	5.30
São Paulo	5,169.241	7.62	63.80
Paraná	345.933	0.51	35.10
Santa Catarina	364.822	0.54	45.40
Rio Grande do Sul	4,678.735	6.90	26.80
Minas Gerais	4,725.422	6.97	52.70
Goiás	70.524	0.10	4.70
Mato Grosso	114.274	0.17	6.50
Total	67,802.099	100.00	40.30

Source: Paranaguá (1860b). Values in contos.

Sul presented an urban and commercial coastal economy in the county of Rio Grande and in the capital that totalled more than 1,000 contos each. In the interior of Rio Grande do Sul, Rio Pardo obtained just over 800 contos.

The presence of rural property mortgages was not only significant for the Neutral Municipality, but also for all the provinces of the North, Central West and Rio Grande do Sul, indicating the reduced use of this instrument in the areas of products from the Amazon forest and livestock. On the other hand, the greatest participation of rural people occurred in Ceará, São Paulo and Rio de Janeiro, characterised by greater presence of agricultural economies, such as cotton and coffee²². In the set of capitals of the provinces, we verified a participation of 18.7 per cent of the total of mortgages, being greater for those guaranteed by urban properties (33.0 per cent of this total).

The high inequality of values between counties can be better analysed by the coefficient of variation, which reached 3.33 for the total values. For rural mortgages, inequality was lower, 2.26 and, at the opposite extreme, for urban mortgages it reached a higher coefficient: 5.92. On the other hand, the average value per district was very low, reaching only 450 contos in the 5-year period. This amount did not allow an annual average of 100 contos per county. Finally, the average annual number of mortgages per county was only eleven. However, few counties and provinces accounted for a large share of mortgages.

We can still observe the territorial coverage of the reports from 1855 to 1859, which included 150 counties, in relation to the total existing in the Empire. If we use the list of counties presented by Mendes in his Atlas of 1868, we find that there were just over 200 counties in the Empire (Almeida 2000). Thus, just over two-thirds of the counties reported mortgages registered in the 5-year period (71.4 per cent). This first result allows us to conclude that there was a reasonable coverage of the Brazilian territory at that time²³. On the other hand, if we use the 1872/74 census as a basis for comparison, it can be seen that the counties that had mortgages registered represented the majority of the Brazilian population and mainly slaves (76.3 per cent and 82.1 per cent, respectively). As expected, the correlation between the mortgage values and the number of inhabitants in the counties was significant, both for the population as a whole and for slaves (0.59). Despite the proportion of slaves in the population being different across the territory, there was no distinct impact on mortgages. Both slaves and freemen generated mortgage business.

Even if more inhabitants lead to more business, the proportion of mortgage values by population was not similar by territory. If in the capital of the Empire there were 62,539 réis in mortgages *per capita*, in Recife and Juiz de Fora the values were much lower (11,103 and 11,793). Finally, in Belém and São Paulo these values were even lower (7,317 and 5,498).

²² The Fortaleza district maintained a more significant share of rural than urban loan guarantees. Some capitals, such as Natal, Curitiba and Vitória, maintained this characteristic.

²³ The only capital for which there is no data was Minas Gerais.

Thus, the results show a significant spread of mortgages throughout Brazilian counties and provinces, but a significant inequality between regions. The capital of the Empire held a very significant share of the credit.

At that time, the debate on the need for a mortgage reform expressed the demand for credit expansion, aimed mainly at farming. Despite the fact that the commercial houses involved in the financial crisis of 10 September 1864 made few mortgage loans in relation to their operations, the financing difficulties in the Rio market and even for the *Banco do Brasil* due to the crisis led the government to complete the approval of new mortgage legislation during the month of September²⁴. In the next section, we compare the amounts mortgaged in 1855-1859 with those after the 1864 reform, in order to analyse the possible growth between the two periods due to the impact of institutional changes.

3. COMPARATIVE EXERCISE OF MORTGAGES BEFORE AND AFTER 1864

After the registry started to operate in 1846, criticisms of the institute continued, mainly from farmers who wanted longer-term credits and lower interest rates²⁵. The mortgage reform of 1864 and the regulation of the following year were new initiatives aimed at developing this market, improving advertising, specificity (of the parties and real estate) and ways of raising funds by banks, through mortgage bills. To better analyse the effect of the reform, we needed data similar to those of Paranaguá. Unfortunately, we did not find any general information for the entire Brazilian territory. Even newspapers did not publish reports of negotiated amounts, although they remained a means of disseminating information and facilitating the connection between borrowers and lenders of resources.

Some scholars have collected data for some counties, and so we can try to compare it with information prior to 1864 for equal spaces²⁶. In order to carry out this comparison, the later values for 1855-1859 were deflated, reducing the effects of monetary issuance and inflation, which was very

²⁴ The house Montenegro, Lima & Cia did not carry out mortgages and Oliveira & Belo a small proportion of the assets: 130 contos. The main bank to go bankrupt was Souto & Cia which held 2,406 contos, but many debts exceeded guarantees (*Brasil*, 1865, p. 68). Stendel showed the greater use of personal credit to farmers than mortgages on rural goods, due to the difficulties in payment because of the mortgage legislation at the time (Schulz 2013, p. 30).

²⁵ The Court of Commerce of Pernambuco demanded a reform in 1860 (Paranaguá 1860, p. 61). Legal mortgages started to be recorded in the new registration of 1864.

²⁶ We obtained the information on the capital of the Empire/Union and Brazil from the *Anuário Estatístico (Brasil 1917, pp. 169-170)*. The Vassouras data originated from the research of Sweigart (1980, p. 147).

TABLE 2
MORTGAGED VALUES IN 1855-59 AND SUBSEQUENTLY DEFLATED (IN CONTOS OF 1855-59)

Counties	Values in 1855-59	Period	Deflated values	Real variation (%)
Campinas (SP)	1,092.65	1865-69	1,798.28	64.58
Franca (SP)	35.38	1865-69	56.45	59.54
Guaratinguetá (SP)	516.00	1865-69	779.93	51.20
Juiz de Fora (MG)	446.00	1865-69	1,170.58	162.46
Recife (PE)	1,295.43	1865-69	2,300.37	77.60
São Paulo (SP)	275.50	1865-69	1,210.58	244.80
Belém (PA)	926.49	1870-74	2,500.95	169.90
Diamantina (MG)	113.46	1871-75	246.69	117.43
Vassouras (RJ)	4,003.88	1873-84	1,305.25	-67.40 ¹
Capital do Império	17,196.41	1890-94	102,458.30	495.80 ¹
Capital do Império	17,196.41	1905-09	58,990.37	343.04 ¹
Brasil	67,802.10	1909	276,584.39	307.50 ¹

¹Values transformed into average 5-year data over the period from the original information.

Sources: Data from Campinas were published by Ribeiro and Camargo Penteadó (2018: 5), whom we thank. Data from Juiz de Fora were published by Pires (2009), whom we thank for the information. The Paraíba district held 1,249 contos of mortgages in 1855-59, probably including Barbacena and Rio Preto. Diamantina data were published by Martins (2016: 21). The reference period for Diamantina's information was 1860-64. Data from Recife and Belém were published by Leandro (2017), whom we thank. Data from Franca were provided by Oliveira, whom we thank.

significant during the War of the Triple Alliance²⁷. In Table 2, we present the results for several counties and Brazil, keeping information comparable from 1855-1859 with that of the later period deflated to 1855-1859 and, finally, the real variation between the two periods. We understand the comparison made as an exercise that can indicate more general trends, but there were several problems that hinder the comparison, as shown below. We also emphasise that the mortgage portfolio of the *Banco do*

²⁷ We used Goldsmith's built-in domestic price index based on indices from other authors: Leff, Buescu, Lobo, Onody and Vieira (1986, pp. 30-31 and 91). All values after 1855-1859 in Table 2 have been converted for those base years.

Brasil treated in the next section also had an impact on the results presented in this section after 1866.

From this already published literature, we obtained reports for six municipalities shortly after the start of the new mortgage registry and another three for a slightly later period. All of the first six showed significant growth in a decade, and may reflect, at least in part, the institutional changes of the period. The counties showed a very wide variation, revealing not only the effect of the mortgage reform, but also of the dynamism of the local economy. The cases of São Paulo and Belém show a large real growth, largely derived from the economic and urban *boom* experienced by these areas in the 1860s. São Paulo presented one of the two lowest mortgaged values in 1855-1859 of the counties considered in Table 2, but the greatest variation, due to a rapid expansion of the municipality and the province's economy. Another notorious movement in the capital of São Paulo and Pará was that of growing urbanisation at that time. The share of rural mortgage values was already reduced, but decreased further, from 20.8 and 24.2 per cent in 1855-1859 to 16.7 per cent in 1865-1869 and 20.1 per cent in 1870-1874, respectively²⁸.

Juiz de Fora showed a variation close to Belém, demonstrating a significant dynamism reflecting the growth of its economy at a time of expansion of coffee in the region. On the other hand, the oldest coffee areas showed a real decrease or small increase. Vassouras had a large mortgage value in 1855-1859, higher than all the other counties under analysis in Table 2, with the exception of the capital of the Empire. However, there was a significant decline in this municipality in the Paraíba valley of Rio de Janeiro, due to the fact that the information reflected a later period and suffered a greater effect from the decrease of coffee in the municipality. A little dynamism was also observed later in the interior of São Paulo—Guaratinguetá, Franca and Campinas. However, this last county already had a greater development²⁹. Finally, Diamantina substantially increased its traded values, but in the initial period the traded value was one of the lowest³⁰.

Recife had a higher mortgage value than São Paulo, Juiz de Fora and Belém in 1855-1859, but it also showed a smaller, although significant, growth than these counties. Probably, this growth was not only due to

²⁸ Despite the few cases observed, for Franca we noticed an increase in the share of rural mortgages from 53.6 to 83.6 per cent in 1865-1869.

²⁹ Molina reported that the mortgage registry of the Rio Claro (SP) made 249 mortgages worth 5,617 contos between 13 August 1859 and 31 December 1864. The new registration started to work 3 months after the decree 3,453 of 26 April 1865. Between 26 June 1865 and 31 December 1869, 272 debt securities to the amount of 10,518 contos were held in Rio Claro (*Gazeta de Campinas*, 6 February 1870: 2). Although this was a region in great expansion of coffee production, we noticed a significant increase in the values of mortgage debts after the new legislation, demonstrating the positive contribution of institutional change to the increase in credit.

³⁰ Diamantina presented a large oscillation of values, as stated by Martins (2016).

the dynamism of the sugar economy in Pernambuco, but to the urban and mercantile expansion of the city. It is worth noting that the share of rural mortgages in total values increased between 1855-1859 and 1865-1869 from 24.8 to 30.9 per cent for the capital of Pernambuco, in contrast to São Paulo and Belém. Thus, we verified an expansion of mortgage credit from the previous period to the one after the new legislation of 1864. Considering almost all the municipalities under study, we only observed a retraction of the values of Vassouras. This result must be understood in comparison with other economic and financial variables. Thus, the economic dynamism of the regions may be the main factor for the results achieved in relation to mortgages.

For Belém and Recife, the growth of exports through their respective ports can be used as a *proxy* for the economic expansion of the region. This procedure makes it possible to try to separate the effect of institutional change from mortgage reform and that of the economy³¹. The former presented a real increase of 169.9 per cent of the values mortgaged between 1855-1859 and 1870-1874, however, in Pará exports grew 129.1 per cent between 1854-1855 and 1869-1874, when these data are available. In this case, and although other factors may explain this growth, there is an indication, *grosso modo*, that the expansion of mortgage credit was slightly higher than the economic one, possibly showing a gain in terms of institutional change.

In the case of the latter, exports from Pernambuco showed a real expansion of 70.7 per cent between 1854-1855 and 1869-1871, driven by the boom in cotton exports with the American Civil War. However, the growth of mortgages in Recife was 77.6 per cent between 1855-1859 and 1865-1869³². Despite a certain overestimation of exports, there seems to be a greater proximity between the two dynamics in this region. Thus, little could be attributed to other factors, such as the institutional reforms of the 1860s.

The capital of the Empire and after the Union had regular information only from 1890³³. The first 5 years of these data (1890-1894) were used as a comparison, despite the large time difference between the data. Real growth proved to be extraordinary, increasing almost five-fold in 35 years. In addition to the significant economic and urban dynamism of the capital, at the end of the chosen period the *Encilhamento* of a feverish

³¹ No export reports were found by province for the same years as the mortgages, trying to use the closest available. We assumed that the capitals were the main ports of these two provinces in question.

³² The existence of information limited the comparison of exports to the years 1854-1855 and 1869-1871, which would be a period slightly longer than that of mortgages. If there had been a trend of expansion in exports, there would have been a certain overestimation of growth with more years being considered.

³³ Ryan (2007). He attributed this growth to the increased banking presence in these operations and also to the 1864 mortgage reform.

monetary and financial period took place. Information on Brazilian exports was used as the most representative to try to estimate the economic dynamism of the capital, since the port of Rio was the main port in the country. Brazilian exports grew 103.8 per cent between 1855-1859 and 1890-1894, but the rise in mortgage values in the same period reached 495.8 per cent. On the other hand, we can use the population in 1858 and 1890 to estimate the *per capita* value, which would be 90,294 réis in 1858 and 196,227 réis in 1890³⁴. Thus, the institutional transformations of the 1864 and later laws had a greater impact than exports. These institutional changes included real credit banks, *Banco do Brasil's* mortgage portfolio and even *Encilhamento's* monetary policy³⁵.

The broadest information for the whole country is available only for 1909 published in the Statistical Yearbook of Brazil, later resumed from 1913. For the first year, the total number of mortgages reached 10,416 and the negotiated face value was 160,436 contos. If we transform this information into 5-year figures and values from 1855-1859, we can attempt to compare it with Paranaguá³⁶. Despite the large time interval between the two moments, this comparison showed a significant increase in the number of mortgages, although much greater than that of mortgage values. The average value of a mortgage in 1909 decreased significantly compared with that of 1855-1859, being 5.3 contos *at the end of the period*. Financial and economic changes had made it possible for slightly less fortunate people to take out mortgages. Finally, we can make a *per capita* comparison of the amounts mortgaged in the country. If we use the population estimated by Mortara (1941) for 1860 and 1910, we see a *per capita* value of just over 8,000 réis in 1855-1859 and 11,507 réis in 1909. Thus, the amount mortgaged per inhabitant grew between the two periods, but this expansion was not so significant for a period of about half a century³⁷.

If we compare with exports, we see a real expansion of trade of 277.6 against 307.5 per cent of mortgages, as seen in Table 2. Thus, we can only attribute a small gain to the institutional changes from 1864 onwards to the country as a whole. A caveat must be made about this comparative

³⁴ Lobo (1984). As the population estimate of 1856 had several gaps in parishes, we performed an interpolation between the information from 1838 and 1874. Thus, we used an estimate for 1858 of 190,000 inhabitants.

³⁵ The creation of real credit banks derived from the legislation of 1875 and received government subsidies through the guarantee of interest on capital (decree 2,687 of 6 November 1875).

³⁶ If the 1855-1859 report did not present data for dozens of counties, even in the capital of Minas Gerais, there was no detailed description by county for 1909. Only one state capital was not considered: Fortaleza.

³⁷ We can use information from the Federal District as a comparison. The *per capita* value reached only 73,000 réis at that time in 1909. This amount was much lower than that of 1855-1859 and mainly 1890-1894. This demonstrated a severe restriction of mortgage credit in the early years of the 20th century.

exercise with exports, as we can expect financial variables to grow more than economic variables in a period of monetary and banking expansion. To analyse this possibility, we performed another comparative procedure, using the M2 payment method as a control³⁸. In this way, it was possible to verify the behaviour relative to another monetary and financial variable. The real growth of the money stock in the same periods as those presented for mortgages in Table 2 was 338.2 per cent from 1855-1859 to 1890-1894 and 415.2 per cent from 1855-1859 to 1909. The former was revealed to be even lower than the mortgage expansion of the country's capital, noting that the monetary and financial effect of *Encilhamento* was not sufficient to explain the increase. There is a possibility of institutional gains specific to the mortgage market in this period from 1855-1859 to 1890-1894³⁹.

For Brazil in 1909, the rise in mortgages proved to be less than that of means of payment. This result indicated some reversal of the advances produced by the institutional changes that had occurred previously. One possibility would be the crisis in the Bank of the Republic of Brazil and the downturn in real credit banks, which experienced great difficulties at the turn of the 19th to the 20th century. As these banks were very active in the mortgage market, their withdrawal from offering credit had repercussions for the entire economy and the financial market, especially for mortgages.

It is still possible to analyse the distribution of mortgages by regions between 1855-1859 and 1909. The south-east maintained almost three-quarters of the total and the north region increased its share to 6.6 per cent; this last area had the greatest dynamism due to the rubber boom. However, values in the province of Rio de Janeiro decreased significantly in 1909 (2.9 per cent) while those in São Paulo increased to 47.3 per cent. Both areas enjoyed coffee preeminence, but very different dynamisms. Large new areas in São Paulo were employed to produce coffee in relation to the small space available in the north of the province of Rio de Janeiro. The share of capitals rose significantly to 43.7 per cent of the total, highlighting the dynamism of the urban economy in different parts of the country. Bahia and Rio Grande do Sul maintained similar holdings in 1855-1859 and in 1909 (8.1 and 6.0 per cent, respectively), but shares in Pernambuco and Minas Gerais reduced more significantly (2.6 and 4.8 per cent, respectively). Thus, São Paulo and the capitals tended to concentrate more and more mortgages in this period.

³⁸ These data were extracted from Peláez and Suzigan (1981, pp. 396-404), but are also available on the Ipeadata website. M2 is the sum of paper money held by the public, demand and time deposits.

³⁹ As the country's capital is more dynamic than the rest of the Brazilian territory, it can be assumed that using the country's currency stock generates an overestimation of institutional gains. However, monetary circulation was strongly concentrated in the large centres, of which the Rio de Janeiro market was the main one.

Newspapers continued to advertise and facilitate mortgage deals⁴⁰. A qualitative analysis of the effect of the mortgage reform can be made from the foreclosures published in the newspapers. Despite the few cases analysed, the references became more common after the reform. Most of the executions raised dealt with urban transactions in different parts of the country, comprising letters, houses and buildings, as in the cases of Paraíba (1869), Capivari (1871), Belém (1874), Campinas (1875), Recife (1878), Rio de Janeiro (1877, 1880, 1882, 1885 and 1887) and São Paulo (1870)⁴¹. However, there was a public notice of a foreclosure action for a farm in Pirai of 160 *alqueires* of land and 183,500 coffee trees and eighty-seven slaves and another for a property in Resende with 227,000 coffee trees and twelve slaves⁴². This indicates other consequences of the reform, not only with respect to mortgages, but also for debt collection. These two farms in the Paraíba Fluminense valley at the end of the 1870s went through an execution process, possibly due to the deterioration of the conditions of the coffee plantation itself in this region. The reduction in the productivity of coffee plantations made it difficult to maintain the payments established for better coffee results at an earlier time. The conditions for the solvency of mortgages in the valley worsened as production and productivity fell, as well as the value of land and property. On the other hand, the threat of the abolition of slavery removed the last real guarantee which had not suffered a loss of value at that time. In the next section, we focus on the mortgage loans of the main Brazilian bank to help us understand this dynamic in the second half of the 19th century, when it became a major creditor and executor of farms in the Paraíba valley.

4. THE MORTGAGE PORTFOLIO OF THE *BANCO DO BRASIL*

All the evidence indicates that the *Banco do Brasil* did not give any mortgages in its first years of operation in the 1850s and early 1860s⁴³.

⁴⁰ Advertisements demonstrated the demand for funds and the anonymous way of contacting the debtor (i.e. *Correio Paulistano*, 11 October 1871: 4). There are several home-based money lending offers within the city of São Paulo and «in this typography it will be said who gives» (*Correio Paulistano*, 17 October 1878: 3).

⁴¹ *O Publicador*, 26 October 1869: 2; *Gazeta de Campinas*, 26 September 1875: 3; *Jornal do Pará*, 9 March 1877: 3; *Diário de Pernambuco*, 1 December 1873: 4; *Jornal do Comércio*, 17 April 1877: 3, 3 November 1877: 3, 10 May 1880: 2, 12 May 1882: 5, 3 November 1885: 2 and 6 August 1887: 5 and *Correio Paulistano*, 30 April 1870: 3, 3 January 1871: 2.

⁴² *Alqueires* is equal to 24,000 square metres. *Diário do Rio de Janeiro*, 9 March 1876: 3, and *Jornal do Comércio* 21 April 1879: 3.

⁴³ Gambi (2010, p. 1888). Villela reported a mortgage loan request from Vergueiro & Cia for the amount of 2,200 contos in 1865, which was not accepted by the *Banco do Brasil* (1999, p. 202). This case illustrates the pressure from farmers for bank financing. The *Banco do Brasil's* advertisements in the *Jornal do Comércio* did not offer this operation either, even in the period after the 1866 reform.

As we have seen, the *Banco Rural e Hipotecário do Rio de Janeiro* already made loans in this way in the 1850s, maintaining this type of loan operation, although involving more modest amounts, in the following decades. After the 1864 crisis, the country's main bank was having trouble and the government pressed and encouraged it to award mortgages in return for assistance⁴⁴. The *Banco do Brasil's* statutes were reformed and it was opened to financing for farming. In August 1867, the bank started to operate a portfolio different from the commercial portfolio that already existed, based on a specific fund, making loans from 10 contos to 120 contos restricted to the south-east⁴⁵. The lowest amount lent by the bank would correspond to more than a dozen slaves, thus excluding the vast majority of people and even farmers. In addition, the maturities could reach 10 or even 30 years in some cases. The capital of the portfolio totalled 35,000 contos, formed mainly from discounted bills guaranteed by the bank (Peláez and Suzigan 1981, pp. 115-117). Thus, after the creation of the portfolio, the bank started to operate through pledge and mainly mortgage, opening a new area of operation for the main financial institution in the country (Sweigart 1980).

In its first year of operation, the bank carried out agricultural financing for the extraordinary amount of 7,940 contos, as reported in the balance sheet at the end of the first half of 1868 (Piñeiro 2007, p. 52). This amount far exceeded the sum of the loans in the 1850s by the banks mentioned in the first section. One hypothesis for this rapid expansion stems from the possibility that farmers' intermediaries would transfer the bonds to the bank⁴⁶. Another alternative was that the bank itself converted bills from its portfolio into mortgages. The growth of the *Banco do Brasil's* portfolio continued in the following years, as can be seen in Figure 1, reaching 11,667 a year later and, at the end of 1869, a total of 15,380 contos⁴⁷. The province of Rio de Janeiro maintained the largest portion of the portfolio, reaching around 12,000 contos in 1872⁴⁸. Thus, about 5 years after its creation, the portfolio reached almost 18,858 contos in May 1872.

⁴⁴ Excessive issuances and the wide acceptance of agricultural and commercial bonds during the crisis weakened the bank's accounts, forcing it to stop being an issuing bank (Vasconcellos, 1867: 18). The withdrawal of bank notes was paid by the government with Treasury notes, thus benefiting the private bank.

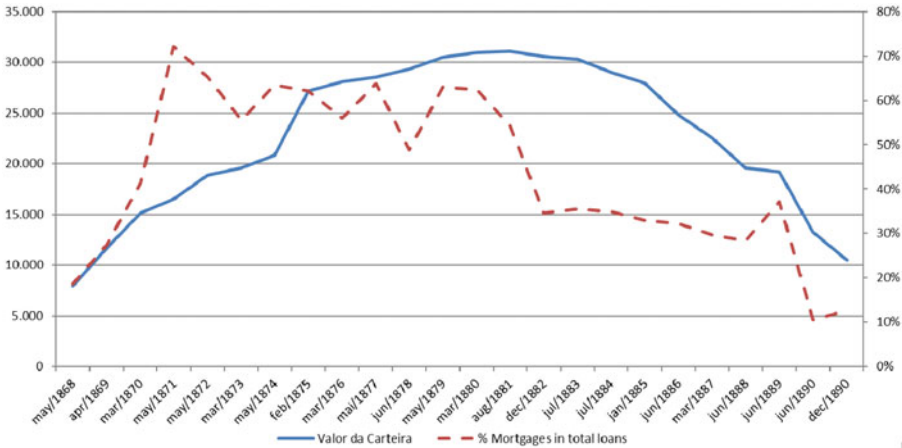
⁴⁵ Decree 3,912 of 22 July 1867 (Piñeiro 2007). All debtors were required to submit documentation of their properties and lists of movable assets (slaves and animals), which would be assessed by an expert. *Banco do Brasil's* mortgage distribution regulations. *Banco do Brasil*, 28 June 1867: 4.

⁴⁶ Schulz (1996) and *Diário do Rio de Janeiro* (26 July 1873: 2).

⁴⁷ *Diário do Rio de Janeiro*, 8 July 1869: 3, and *Almanak Administrativo, Mercantil e Industrial do Rio de Janeiro* of 1870: 221 *Suplemento*.

⁴⁸ The closing of branch offices in different provinces also made it difficult to make mortgages in these areas. In the 1866 balance sheet, they were in Ouro Preto, São Paulo, Bahia, Pernambuco, Rio Grande do Sul, Pará and Maranhão (*Diário do Rio de Janeiro*, 1 August 1866: 3). In the early 1870s, the only branch was São Paulo (Haring 1871, p. 157).

FIGURE 1
MORTGAGE PORTFOLIO OF *BANCO DO BRASIL* (values in contos de réis and % non-mortgage loans, 1868-1890).



Source: Balance sheets published by the bank in several newspapers, Almanacs and Reports from the Ministry of Finance.

Note: We consider as loans: bills (discounted, guaranteed, receivable and bankruptcy) and current accounts (with guarantee, miscellaneous and from the National Treasury and provincial governments).

In order to better analyse the relative importance of this portfolio for the *Banco do Brasil's* business, we compare it with their non-mortgage loans. This form of providing financing had been used since the beginning of the bank's operations, assuming significant proportions of assets and new forms and customers over time⁴⁹. As can be seen in Figure 1, the representativeness of the mortgage portfolio in relation to these non-mortgage loans also grew rapidly in the late 1860s and early 1870s, making up about two-thirds of the bank's non-mortgage loans throughout the 1870s. Only in the 1880s, we verified a more effective decrease of the proportion, but still making up about one-third until the end of the Empire. Thus, for more than two decades, the mortgage portfolio represented a very significant portion of the bank's financing activity.

Despite the representativeness in the balance sheets, the clients in the portfolio were a very small and very fortunate group. Until 30 June 1872, 364 mortgage loans totalling 27,000 contos were made, but on 307 assets

⁴⁹ There was a major change in the types of bank loans over the period, making comparability difficult. We seek to incorporate changes, such as secured account loans and the growth of loans to the Treasury and provincial governments. However, we do not include securities in liquidation, either in loans or in the mortgage portfolio.

totalling 19,700 contos. Of this last total, thirty-nine were urban mortgages on 254 buildings, adding up to just over 3,000 contos, that is, 23.5 per cent of the bank's total mortgages⁵⁰. The average amount borrowed exceeded 60 contos, which was equivalent to a large property at that time. Demands for the bank's mortgage loans exceeded the portfolio's capacity, producing complaints from neglected provinces and even from farmers in general. Although we did not find any advertisements for the *Banco do Brasil* in its newspapers about its mortgage operations, the growth in this financing produced the need for the collection, execution, auction and sale of agricultural properties. From 1868 onwards, we noticed several cases of the auctioning and sale of farms by the bank, such as those in Barra Mansa, Vassouras, Bananal, Rio Claro and Paraíba do Sul⁵¹. The securities in liquidation corresponded to late payments, which reached the value of 3,146 contos in June 1873 (17.2 per cent of mortgages). Another significant portion of the portfolio's resources was in cash or in government bonds, reaching just over 5,000 contos. This demonstrates a certain fear of lending on the part of the bank and a political and social pressure on the institution, also revealed by the retraction of the portfolio's business shown in Figure 1.

The government and the *Banco do Brasil* entered into a new agreement in September 1873, which allowed the launch of mortgage notes to finance longer-term mortgages. In addition, the bank would no longer accept the forced adjudication that required it to acquire all the assets as collateral on the execution of the debt. The established interest rate was reduced to 6 per cent per year and the amortisation rate was no more than 5 per cent. The mortgage portfolio expanded its application to Paraná and Santa Catarina. Despite the expansion, the concentration in the province of Rio de Janeiro continued in 1874, as it represented 60.0 per cent of the total and those in Minas and São Paulo accounted for 17.6 and 20.7 per cent, respectively. If the urban mortgages in the capital of the Empire totalled 1,460 contos that year, several municipalities reached levels close to or higher in rural loans, such as Valença (3.42), Vassouras (2.13), Mar de Hespanha (1.57), Paraíba do Sul (1.53), São Fidelis (1.31), Leopoldina (1.29), Campinas (1.25), Cantagalo (1.20) and Juiz de Fora (0.98)⁵². Some of these locations are already mentioned in the previous sections and the amounts lent by the bank represented, despite a time difference of just over 5 years, a large portion of the total traded in the counties present in Table 2, highlighting the relevant role of the *Banco do Brasil*

⁵⁰ *Jornal do Comércio* (26 July 1873: 3).

⁵¹ See several examples in the *Jornal do Comércio* (1868, edition 336), (1871, editions of 269, 306, 346 and 358) and of a building (1879, edition 330: 3).

⁵² *Jornal do Comércio, Retrospecto Comercial* of 1874 (1875: 20).

for mortgage financing⁵³. In the province of Rio de Janeiro alone, business reached 256 mortgages and 286 farms with 16,248 slaves, amounting to just over 16,000 contos in loans⁵⁴. The concentration in the Rio de Janeiro province was due, not only to the economic relevance of the region, but also, possibly, to the political influence in the government of these great farmers and coffee barons.

Most of the portfolio consisted of rural loans and during the 1870s the financing terms were extended after the agreement with the government. The first launch of mortgage notes worth 2,000 contos in 1875 helped in this expansion, raising the loaned capital to just over 26,000 contos later that year⁵⁵. Subsequently, letters were released in 1876 and 1878, with the three batches totalling approximately 5,000 contos. If, in 1873, more than nine-tenths of mortgages were short-term, just over 5 years later, more than two-thirds were lent in the long term. There was an improvement in late payments, as the securities in liquidation reduced to 841 contos in 1877, making up just under 3 percentage points of mortgages. Finally, the bank also reduced the resources of the portfolio in cash and in mortgage bills, applying almost all⁵⁶.

Throughout the second half of the 1870s, the portfolio did not expand in the same way. The bank's stock of mortgages reached 764 operations, with the remaining 31,313 in 1880. The distribution of these loans was entirely concentrated in the south-east: 83 in the Neutral Municipality, 319 in the province of Rio de Janeiro, 214 in the province of São Paulo, 136 in the Minas Gerais and 12 in Espírito Santo⁵⁷. Half of the values were still in the Court and the province of Rio de Janeiro (50.2 per cent), but São Paulo already accounted for almost a third (32.1 per cent) and Minas about a sixth (16.9 per cent).

The *Banco do Brasil* stopped issuing mortgage bills in the third issue in 1878, which limited the possibility of expansion. That year, the Commercial Retrospect of the main economic newspaper showed that these titles were well received: «their solidity; already several small capitalists, who are looking for secure jobs for their economies, give them preference over other values of higher income, well guaranteed, but subject to various causes to frequent price fluctuations in the market. Mortgage bills were traded every month of the year and almost every day» (*Jornal do Comércio* 1879, p. 36). Such securities continued to be traded at

⁵³ We must remember that the bank's information consists of the mortgage stock and that of the mortgage registry office represents a flow of one or more years. As shown in Table 2 the sum of loans for the period 1855-1859 approached the stock of mortgages, due to the term being usually for a few years.

⁵⁴ *Jornal do Comércio*, 23 December 1874: 2.

⁵⁵ *Jornal do Comércio*, 29 October 1890: 6.

⁵⁶ *Jornal do Comércio*, 6 June 1877: 1.

⁵⁷ *Correio Paulistano*, 3 August 1880: 2.

variable discounts on the secondary market during the 1880s, maintaining the liquidity of the securities.

In addition to not accepting slaves as collateral in 1884 due to the growing abolitionist movement, the institution decided to liquidate the portfolio definitively, while respecting current contracts and reducing new credit operations⁵⁸. At that time, the portfolio totalled almost 29,000 contos, mainly long-term rural mortgages (86.9 per cent). Of the 781 active contracts in June 1884, about half were up to date and, in terms of values, slightly more than half of the total (52.6 per cent). There were slightly more than 700 rural mortgage loans comprising 773 farms, 97 million coffee trees and 34,500 slaves⁵⁹. The abolition of slavery threatened to destroy a large portion of the collateralised amounts of loans. Rio de Janeiro's participation in rural mortgages reduced to 45.0 per cent of the values and the São Paulo province reached 36.0 per cent, and Minas Gerais 18.4 per cent. Following the expansion of coffee to other areas, the portfolio shifted its financing further to the interior of Minas and São Paulo. If at the time the mortgage was granted, the loan was 44.3 per cent of the valuation of real estate assets and slaves, the remaining balance of these loans represented almost three-tenths of the equity given as collateral (29.2 per cent). Even without slaves, the property valuation exceeded the remaining mortgage debt balance.

Beyond the *Banco do Brasil*, the banks of real credit with interest guarantee began to finance through mortgages, using mortgage notes to raise funds⁶⁰. For example, the *Banco Predial* held 4,000 contos in urban and rural mortgages in 1881, issuing slightly less in mortgage bills⁶¹. According to reports by Laërne (1885, pp. 218-223) for 1883, coffee farms in the province of Rio de Janeiro were crucially dependent on the *Banco do Brasil's* mortgage financing, much more than the other provinces. We estimate that about 7.6 per cent of slaves in the municipalities of Rio de Janeiro who had loans with the *Banco do Brasil* were mortgaged to the bank⁶². The captives used as collateral of the credits for the area bordering the Rio de São Paulo and Minas (Paraíba valley São Paulo and Minas Gerais) represented 5.7 per cent of the slave population of these municipalities. For the Santos area, the *Banco do Brasil's* share was lower (62.4 per cent), with the *Banco de Crédito Real de São Paulo* and the *Banco Predial* taking on significant shares. Even so, the *Banco do*

⁵⁸ The bank should assume a fine on the redemption of the issued notes. The government then waived the fine in exchange for a 10-year liquidation of the portfolio (Tocantins 1887, p. 25).

⁵⁹ Report of the *Ministério da Fazenda* of 1884 (Saraiva 1885, pp. 94-100).

⁶⁰ Decree 2,687 of 6 November 1875.

⁶¹ *Jornal do Comércio*, 6 September 1881, p. 4. The *Banco Predial* still held over 6,000 contos in mortgages in 1884, the vast majority of which were rural (Saraiva 1885: 100-103).

⁶² For the calculation, we used the slave population of 1882 and 1883 informed by Laërne (1885, pp. 115-121).

Brasil alone mortgaged 10.2 per cent of the slaves in that area, possibly the higher incidence of financing in that area was due to the more favourable prospects for coffee growing. As a result, these new institutions quickly gained market share mainly in the most recent cultivation areas, however the *Banco do Brasil* still maintained the largest share of the mortgage market captured by banks.

Laërne's reports allow us to measure the collateral for the *Banco do Brasil's* loans in 1883. The bank maintained, at that time, the mortgage of 776 farms in the south-east, which grew mainly coffee, but some mixed with other productions such as sugar north of Rio de Janeiro and more diverse crops in the west of São Paulo. The average number of slaves reached almost forty-five, revealing that the large producing units benefited from this more favourable credit⁶³. The other two institutions maintained just over 9,000 contos in mortgaged values, covering more than 5,000 slaves⁶⁴. For them, the average number of slaves was much lower than that of the *Banco do Brasil*, but still a large number: 20.6. Thus, small and medium coffee farmers had little chance of obtaining mortgage loans from these institutions, especially the *Banco do Brasil*.

According to Laërne's data, the amounts lent by the portfolio corresponded to just over four-fifths of the mortgaged assets⁶⁵. Slaves still represented a significant portion of collateral (44.1 per cent)⁶⁶. In the Rio zone, this share reached almost half of the total (46.4 per cent), however in the Santos zone the total reached a little more than a third (38.5 per cent). The Rio zone depended more heavily on its captives as collateral for financing; prices should have been similar in these two regions due to the mobility of this asset. The value of the remaining debts of the bank's mortgages amounted to about 29,000 contos at that time. These loans still accounted for almost a third of the collateral amounts (30.6 per cent). The bank maintained large sums associated with coffee farms and, to a lesser extent, sugar from the south-east and slaves. Many of the assets provided as collateral lost value during the 1880s, both with regards to slaves and farms in the Rio zone.

⁶³ In the mid-1880s, the collateral of these properties involved 99,083,433 coffee trees and 34,837 slaves.

⁶⁴ The *Banco de Crédito Real de São Paulo* mortgaged nearly 5 million feet of coffee, but the *Banco Predial* did not report the number of feet of coffee mortgaged.

⁶⁵ Laërne (1885, pp. 218-223). The *Banco Predial* and that of *Crédito Real de São Paulo* had even slightly higher percentages, reaching just under half of the assets evaluated (47.6 per cent). Possibly, the most recent evaluations were more consistent with the reality of the São Paulo farms.

⁶⁶ In the following year, the bank stated that non-slave guarantees far exceeded the remaining value of loans (*Gazeta da Tarde*, 16 September 1884: 1). A critical argument for abolition was that freedom for collateralized slaves would lead to the insolvency of many debtors, causing an abolition financial crisis.

The bank gradually reduced the portfolio's operations over the last years of the 1880s, from almost 25,000 contos in 1886 to just 10,000 contos at the end of 1890⁶⁷. After almost 20 years of operation, the portfolio had totalled, from its beginning until June 1887, 1,342 mortgage loans with a value of 75,742 contos (Tocantins 1887, p. 26). The average loan amounted to more than 50 contos. Despite the very significant amount of resources mobilised by the portfolio, the share of the population benefiting from these loans proved to be quite limited. In that same year, the mortgage portfolio produced a profit for the bank in excess of 1,000 contos. Finally, until 1886 the bank had already received over two-thirds of the total (67.0 per cent)⁶⁸. These results demonstrated the solvency of the mortgage portfolio until that moment.

The board's justification for closing the portfolio was reduced profitability, despite the small amount of losses recorded until 1890. However, of the 391 remaining borrowers in the portfolio that year, less than a quarter (22.8 per cent) paid on time in that same bank report. The *Banco do Brasil* already owned twenty-eight farms and sold nine in the last year⁶⁹. The remainder of the portfolio probably comprised of the debtors with the greatest difficulty in making payments. The Paraíba valley suffered from a decrease in production and especially in the productivity of coffee plantations, leading to a fall in land and property prices. Debts often contracted for long periods through the portfolio became unpayable due to the deterioration of production conditions and the loss of value of assets. The bank executed its debtors, but the possibilities of recovering credit were very limited under these conditions⁷⁰.

In compensation, the bank created an agricultural credit section that received part of the remaining funds from the mortgage portfolio and the other part from the government, thanks to a new agreement signed in August 1888, in order to lend based on discounted bills, current accounts guaranteed by mortgage, pledge or policies, actions, etc. At the end of 1888, the section comprised of 13,000 contos, of which just over 5,000 were in mortgages. These amounts were at least initially much lower than the peak of the mortgage portfolio. In this way, only a part of the resources of the new credit section was invested in mortgages, reducing the risks of loss of value of land and improvements. The province of Rio de Janeiro accounted for 35.5 per cent of loans and São Paulo accounted for

⁶⁷ *Jornal do Recife*, 3 June 1886: 2, and *Jornal de Comércio*, 5 January 1890: 5.

⁶⁸ Report of the *Ministério da Fazenda* of 1886 (Soares de Souza 1887: A-G-3 and A-G-8).

⁶⁹ *Jornal do Comércio*, 29 October 1890: 6.

⁷⁰ Stanley Stein (1990, p. 332) stated that in the province of Rio de Janeiro «At the end of the decade [1900], most coffee farms in the State of Rio were mortgaged or controlled by the mortgage bank mortgage sections (...)». The *Banco do Brasil* stood out as the largest operator in financing farms and their executions.

39.7 per cent of the total, leaving Minas Gerais with 23.8 per cent. Finally, there was agricultural credit to aid the northern states, which also received contributions from the mortgage portfolio and the government.

The *Banco do Brasil*, the *Banco de Crédito Real do Brasil* and that of São Paulo accumulated more than 10,000 contos in bills in 1886, which was directed to mortgage credit. In 1889, the imperial government, in an effort to secure political support, made several agreements with various banks to expand mortgage loans, taking over half of the resources to be lent⁷¹. Thus, the *Banco do Brasil* and, subsequently, those of real credit became important financing agents through mortgages as of the end of the 1860s. The bases for the continuity of the policy, however, proved to be quite dependent on government support either through the *Banco do Brasil* or real credit institutions.

5. CONCLUSIONS

Despite the restrictions on financial resources typical of a developing economy, mortgage credit in 1855-1859 reached a significant amount, spread over most Brazilian counties and covering the vast majority of the population. It still made short-term loans to the fortunate, with high interest rates and mainly for more urban activities, concentrated in the capital of the Empire and its main commercial centres. Inequality between regions, provinces and even counties was already high at that time. The average values also proved to be significant, excluding a large portion of the population. On the other hand, newspapers were a means of facilitating business by spreading information and bringing parties together, as well as mortgage transactions. When approaching applicants and providers of resources, journalistic establishments announced and brokered credit proposals and other businesses.

The analysis made it possible to evaluate the possibility of institutional advances in the mortgage market from 1864 until the beginning of the 20th century. The mortgage reform and the creation of the *Banco do Brasil*'s mortgage portfolio had, until *Encilhamento*, a positive effect of mortgage credit expansion for most of the counties under analysis. Even if we compare the demographic or economic dynamism measured by exports, we see smaller, but still significant, expansions for most counties. However, the change in economic policy at the end of the 19th century led to a fall in mortgage credit throughout the country, reversing previous advances in

⁷¹ Other banks also received support to finance through mortgages in 1889, such as the *Banco Predial*, the *Banco Comercial e Hipotecário de Campos*, the *Banco Hipotecário* and the *Comercial do Maranhão* (Carreira 1889, pp. 709-712). Some were already making mortgages, as reported for Campos since 1876 (Pereira 2014).

relation to the expansion of this type of financing. Even so, we noticed, after the reform, a higher penetration of mortgage credit among the slightly less fortunate.

The *Banco do Brasil*, encouraged by the government from the end of the 1860s, became an important financier providing mortgages with favourable conditions for the most fortunate farmers of south-east Brazil. The high amounts lent by the bank represented a large proportion in relation to the bank's other loans until the end of the Empire. The collaterals offered were mainly coffee farms in the south-east and their slaves, corresponding to a significant portion of the labour force in that region. The growing risks of the portfolio both of coffee plantations in the Paraíba valley as well as of slavery itself led the bank to restrict its operations even before the end of the Empire. Thus, we verify that the institutional changes in the mortgage market in the 1860s, both general and more specifically affecting the *Banco do Brasil*, produced a progressive advance in the use of this instrument in the second half of the 19th century.

ACKNOWLEDGEMENTS

Received 17 April 2019. Accepted 31 March 2020.

This research was supported by Fapesp – São Paulo Research Foundation (2012/09121-2). The author acknowledges the comments received in the *XII Congresso Brasileiro de História Econômica da Associação Brasileira de Pesquisadores em História Econômica*.

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