

**Maria Barbara Levy**

## **The Brazilian Public Debt – Domestic and Foreign, 1824-1913**

### **1. Introduction**

In his study of the social structure of Brazil, the historian Manoel Maurício de Albuquerque (1981) emphasized that the élites of the country's Southeast upheld national unity in their own interest, though he does not unravel the financial mechanisms of this support. He does show the Paraguayan War to have been a last expansionist effort in South America by the slave-owning coffee aristocracy. The failure of this attempt weakened the monarchic state, and quickened its downfall in 1889.

The aim of the first part of this essay is to show how the Monarchy found domestically financial resources to impose its centralism on a country of continental dimensions, whereas Spanish America became fragmented. The second aim is to demonstrate how, soon after, the Brazilian Empire employed the same methods to force its hegemony on the River Plate Basin.

The historiography of the republican period before the First World War analyzes financial aspects in depth, since several reforms in monetary policy were implemented at that time corresponding to different political orientations. Two very precise moments can be distinguished: the first, of Jacobine revolutionary tendencies, and the second, when the new agrarian and conservative élites come to occupy the political scene. In these studies, exchange rates and monetary policy play an eminent role, due to the economy's export characteristics and to the importance

of its foreign debt which was renegotiated twice during this period with the funding loans of 1898 and 1914. The domestic debt is systematically relegated to a secondary status since it is an internal matter, even though the reforms under study always include the public debt market in their range of targets, thus affecting one way or another the value of institutional and private portfolios. In an effort to close this gap, albeit in a preliminary fashion, the third part of this article will analyze the reasons which led the government of the time to indebt itself, and how it renegotiated its debt through various conversions.

It is quite obvious that the history of the Brazilian domestic debt has so far been neglected, especially if compared to the abundant analytic material produced on the foreign debt (Fritsch 1988; Goldsmith 1986; Pelaez and Suzigan 1976; Neuhaus 1975). The sources are relatively numerous, though lacking in homogeneity. We will present here only an initial exploration of the data contained in the tables drawn up by the *Diretoria de Contabilidade da Caixa de Amortização* in the annual reports of the Ministers of Finance from 1827 to 1919. As comparative parameters, the fiscal revenues (from these same reports) and the development of the foreign debt, put together by Bouças (1950), will be employed.

For each of the periods covered, total fiscal revenue, as well as expenses effected by the ministry, have been recorded. The additional funds with which the government provided for the deficits have been divided into domestic and foreign debt. We shall thus be able to show the relative importance of fiscal revenue and debt funding. As the servicing of both domestic and foreign debts – interest and amortization payments – are included in the Finance Ministry's expenses without systematic labels, the exact amount of the debt service costs has been obtained by compiling amortization payments and calculating interest from contractual rates. Other useful information, such as the classification of bondholders by category and the quotation of these titles in the market will be shown for the years available. In order to facilitate comparison with other Latin Ameri-

can economies, amounts in "mil-réis" have frequently been presented in pounds sterling.

## **2. Domestic Debt During the Formation of the National State, 1824-1850**

Various factors contributed to the emergence of the public debt in Brazil. There was, in the first place, great unease about the first foreign loan – of 1824 – as British recognition of Brazilian independence was put as a requirement for granting the loan, which manifested itself in a low rate (price of placement) of 85 percent for one part of the funds and 75 percent for the other. Not considering these discounts sufficient, the Rothschilds transferred to Brazil the responsibility for Portuguese loans obtained in London during the War of Independence. Secondly, D. Pedro I's absolutist tendencies led Parliament to take a series of measures to limit the Monarchy's financial capacity, such as the closing of the first Banco do Brasil and the establishment of the public debt along the lines of the Great Book of the French Revolution. The executive was thus deterred from resorting to the bank's bond issues to cover the deficit, and the assets of the Emperor were finally separated from those of the state, requiring that any new credit operation be approved by Congress.

The law of November 15, 1827, determined that the administration of the Public Debt be carried out by the Caixa de Amortização. Its obligations included the regular payment of interests and annual amortization of one percent of outstanding bonds, as well as intervening opportunely in the market to sustain quotations. It would also register loans made directly to the person of the Emperor during the years of the War of Independence, consolidate the previous floating debt and convert into four percent bonds a loan placed to redeem forged copper coins circulating in Bahia.

The government bonds were received favorably in the Rio de Janeiro market, though the Emperor's abdication in favor of his son – still under age – as a result of liberal pressure, was momentarily reflected in the fall of their price. By the following year, the Caixa de Amortização had opened a branch in Bahia to distribute in the North-East its five percent bonds, usually given as payment to government suppliers. Domestic debt during the Regency period (1831-1840) played an important role in the formation of the national state, supplying the resources with which the government would militarily control the multiple separatist movements which were then emerging.

As early as 1835, the Finance Minister would point out the advantages of domestic over foreign indebtedness, given that the interests and amortizations paid would not be removed from internal circulation but, on the contrary, would benefit the capital of nationals or of foreign residents. Moreover, the exchange rate would not be affected negatively. Faced with emergencies, the government could deal with extraordinary expenses with resources from the country itself. The Finance Minister thus emphasized the importance of maintaining public confidence in the regularity of the Caixa's payments and that no new placements should be effected without providing funds for payment of interests and amortization (*Relatório da Fazenda, Brasil 1835*: 11-12). The economic climate favored such considerations: coffee exports from Rio de Janeiro province began to increase, and planters were keen buyers of government bonds. As their revenues were concentrated, while expenses were spread over the year, they bought bonds during the harvest period to be then sold when necessary during the following months. Government guarantee and the visual presentation of these titles also enhanced their attractiveness to planters. Not only was it a low risk investment of guaranteed liquidity, but its coupons also simplified the understanding of interest-payment periods.

These were also years of great separatist turmoil from the North to the South of the country. A clear indication of the di-

mensions of these movements is the fact that in 1837 the register of fiscal revenues does not include five provinces. Military repression of these rebellions was violent and made possible only because the Regency had access to funds in addition to the regular tax revenues. Between 1838 and 1839 these resources were channelled to control revolts in Pará, Maranhão and Bahia. Despite these political events, the price of bonds remained quite stable, demonstrating the existence of important interests upholding the policy of national consolidation. Already since 1835 a rebellion was developing in Rio Grande do Sul, which gradually acquired a federalist and republican character. It was able to hold out against the central power until 1845.

In 1838 regional resistance to military interventions made recourse to a new foreign loan inevitable, while the domestic market required the market for government bonds, until then very much concentrated in Rio de Janeiro, to be extended to the other provinces of the Empire. A wide circulation of bonds would not only prevent hoarding, but also "bind the greatest possible number of citizens through the ties of private interest to the credit of the state debt" (*Relatório da Fazenda, Brasil* 1840: 14-15). This quote shows that there was a clear understanding of the political engagement and of the identity of interests which a market for public securities created. In this same year, the government began to issue Treasury bonds – a short term security – with which to solve momentarily its cash deficits and which would be covered by the anticipated revenues. On the political level, the regional uprisings, together with other popular disturbances, strengthened conservative conviction that it was necessary to recognize D. Pedro II as having come of age at 14, so that the image of the Emperor would contribute to the consolidation of a national identity.

A frustrated attempt to obtain a new foreign loan in 1840 forced the government to issue bonds, which in the two following years increased domestic debt by 50 percent. Domestic and foreign debts began to balance each other in the composition of the total public debt, even though in 1843 a new credit had

been granted in London. As the volume of bonds in circulation grew, so did the secondary market for these securities, making it more and more complex to process payment of interests on bonds which had changed hands repeatedly. The organization of the public bond brokers into a Stock Exchange in Rio de Janeiro was the direct result of the fact that they wished to guarantee their exclusive position as middlemen, while the government was interested in having a reliable source of information.

The economic expansion of the country did not reflect in its finances, which were almost always in deficit. A tariff reform became inevitable, even though it would affect interests traditionally identified with international trade. Increased export taxes (1836) provoked the discontent of the old sugar aristocracy, which feared losing its competitive strength in the international market. It had become imperative to do away with a free-trade policy, which taxed imports by only 15 percent, and to introduce a tariff system which would be governed by the criteria whether the item in question could be produced in Brazil and how important it was to the domestic market. By 1844, among the almost 3,000 categories of imported products, the majority was taxed by 30 percent, while some by 40, 50 and 60 percent, thus bringing some relief to the Treasury. There were violent protests from importers and from Great Britain, the main supplier, and some historians attribute the radicalization of British policy against the slave trade as retaliation against this decision.

### **3. Domestic Debt During the Prime of the Empire, 1850-1889**

Brazilian historiography sees 1850 as the year of profound social transformations in the country. Indeed, from this moment on, D. Pedro II takes the reins of government through his *Po-*

*der Moderador*<sup>1</sup>, the country is internally pacified, a Land Law and a Commercial Code are established, the prohibition of the slave trade announces the gradual demise of slavery, and both Brazilian diplomacy and the military turn to a policy of effective intervention in the River Plate Basin. In short, from various points of view it is clear that a transition has begun from a society based on inherited colonial slavery to one which is more modern and capitalist.

It is not appropriate in this context to analyze the reasons which led to the armed Brazilian interventions in Uruguay and Argentina against the governments of Oribe and Rosas, respectively. It is sufficient to be aware that the pacification of Rio Grande do Sul implied certain military engagements by the central power to guarantee its interests along the border; that steam shipping brought new perspectives of economic exploration of the Paraná, Paraguay and Uruguay rivers, and that free traffic on these waterways was fundamental for the economic exploitation of the Province of Mato Grosso, in Central Brazil. In the name of these principles, the Empire intervened in 1851 in Uruguay and in 1852 in Argentina, placing in power governments upheld by the Brazilian Army and Navy, which would guarantee free navigation in the River Plate Basin.

From the financial point of view, these military measures not only required a new loan in London, but also caused extraordinary expenses, covered by the issue of short term Treasury bonds whose circulation increased tremendously, compelling the Finance Ministry to convert the bonds into long-term securities – an operation which produced great profit for their buyers. At the same time, in order to protect the new Uruguayan government and to help the Argentine Province of Entre-Rios, an ally of Brazil against Rosas, Brazilian funds were lent to these regions. These capital movements (2,125 "contos de réis" or 253,000 pounds) originated a foreign credit, for which funds

---

1 Institution which empowered the Emperor, above the executive, judicial and legislative powers, to ratify resolutions, call Congress into extra session, commute sentences etc.

were quickly secured in the short-term market for Treasury notes.

During the last years of the 1850s the London market was quite favorable for Brazilian securities, which, next to the Russian, were the best priced. Taking advantage of this situation, new foreign loans were contracted, some of which were used to nationalize railroad companies in the years 1858, 1859, and 1860. During this same period, on the other hand, the volume of the bonds of the domestic debt in circulation remained stable. If an increase in their amount is found in 1861 and 1862, it is due to a law which allowed the exchange of railroad shares into six percent bonds – an operation popular with foreign shareholders, who would soon sell these titles to Brazilian investors.

In 1862 a diplomatic incident provoked by British sailors – who had recourse to their extraterritorial rights according to which British subjects were not subject to Brazilian laws – caused the Empire to suspend relations with Great Britain. These remained severed until 1865, when the outbreak of the Paraguayan War forced British diplomacy to renew official contacts with Brazil. Commercial relation, though, continued normally, and in 1863 and 1865 Brazil obtained new loans in London and Amsterdam – the latter already intended for purchasing arms for the war.

The long war against Paraguay (1865-70), in which Brazil took part on the side of Argentina and Uruguay, was, however, massively financed by domestic resources, through a considerable increase in taxes, through sales in the bond market and through the subscription in 1868 of a national loan of 30,000 contos-gold (2,190,000 pounds). Great efforts were made not only to expand the public debt market to all provinces, but also to indemnify and pay in bonds those slave-owners who freed their slaves for military service on the front. At the same time, the servicing of the foreign debt, the expenses incurred on the import of arms and the cost of the loans given to allied Republics in the River Plate – including, once the war was over, also



the new Paraguayan government – without the assistance of any new loans in sterling, forced the depreciation of the national currency.

The cost of the war effort (see Table 1) was calculated shortly afterwards at about 488,700,000 contos, equivalent to approximately 45 million pounds (*Relatório da Fazenda, Brasil 1872: 12-16*). In this estimate all the expenses of the military ministries were included as well as those incurred by the Ministry of Justice as a result of the mobilization of the Military Police and, most importantly, those of the Finance Ministry. Among these were included the foreign loan of 1865, those expenses resulting from the war which were borne by the Caixa de Amortização, payments to pensioners and losses brought about

Table 1: Cost of the Paraguayan War, 1865-1870

Ministry	1,000 Contos	1,000 £
War	272.7	25,120
Finance	127.7	11,760
Navy	59.8	5,510
Justice	0.4	40
Computed in 1871	28.1	2,580
Total	488.7	45,010

Source: *Relatório da Fazenda, Brasil (1872: 12-16)*.

by the war to certain government credit operations. The financial losses of the war – the difference between real and nominal value of the foreign loan of 1865, those of the national loan of 1868 and those of various issues of the domestic debt, as well as exchange losses – were duly computed in these numbers.

The Foreign Office followed Brazilian imperial policy in the River Plate with many reservations, fearing that the conflict

would result in territorial gains which could affect the balance of power within the region. Only in 1871, after the war had ended, did Brazil obtain new loans in London. At that time the Finance Minister was of the view that the Treasury, "by attracting the available national funds, was effectively drawing these away from agriculture, commerce and industry, thus hampering the establishment of firms which needed credit to develop" (*Relatório da Fazenda, Brasil 1871*: 11). From that year onward the volume of bonds in circulation tended to stabilize, although, between 1872 and 1873, it became necessary to pay for the liquidation of the Companhia Docas do Porto do Rio de Janeiro, whose funds were all bought by banks in Rio de Janeiro and, to a lesser extent, in Bahia and Rio Grande do Sul. This solution was reached since it had become impossible to delay any further a commitment to reduce the tax levels that existed at the end of the war.

The railway building program then acquired priority because it had the effect of extending the land planted for export and also tended to foster the internal movement of goods and passengers. These investments extended to the planning, construction and extensions along the main axis of the Empire (the Pedro II Railway) and in Bahia and Pernambuco, the old North-Eastern centers, and in São Paulo and Rio Grande do Sul, which began to acquire a certain economic importance. In 1875, at the time when these investments were considered imperative, the Rio de Janeiro market was shaken by a bank crisis which destroyed any hope of funding the venture domestically. On the other hand, the structure of the foreign capital market was not suited to loans in parts, such as required for investments of this nature. The government thus contracted a large loan, much above immediate needs for railroad expansion. At the moment of signing the contract the quotation of Brazilian loans was quite favorable, but quite soon the London market became restless and indecisive, which during the following year resulted in wide fluctuations in the quotation of

the new issue. Such risks were a contributory factor to the foreign market being considered a last resort.

Clear evidence of how the government was turning to domestic credit sources is the increase between 1876 and 1879 of 27 percent, that is, an average of 6.1 percent per annum. Through various contracts, at first with Banco do Brasil, then later with other private banks and bankers, the government exchanged short-term Treasury bills for bonds of the public debt of undetermined maturity, thus being able to consolidate its floating debt. These operations were not sufficient, however, to cover the losses caused by three successive years of drought in the North-East. To cope with these requirements, a new national loan was issued in 1878 to the amount of 50,000 contos (about 4.9 million pounds), which was subscribed in the more important provinces.

During the vote on the 1883-84 budget, it became clear that large amounts of money were needed to guarantee the interest payments to railway companies, to subsidize shipping companies, to finance schemes for the introduction of steam energy in the sugar mills, to carry out infrastructural works for the port of Rio de Janeiro, and to effect a new consolidation of the floating debt and update the service of the public debt. The expenditure was to be met both in the national currency and in sterling. To resort exclusively to foreign markets was bound to result in foreseeable losses. To carry out the operation entirely at home meant that the government would effect sizable purchases in the exchange market, thus reducing rates. Given these restrictions, the loan of 1883 was authorized on condition that it be used solely for foreign currency expenses.

In 1884, a proposal of the Finance Minister for the conversion of the domestic debt was approved. This was a delicate transaction, involving, besides the interests of banks and other large institutions, those of the great "rentiers" who were solidly represented in the Parliament. The proposal proved to be straightforward. The conversion would be effected through the creation of a new loan at a lower interest rate and the previous

loan would be cancelled. The force of the argument resided in the fact that the bonds were being quoted on the market above par, thus the six percent rate calculated on the nominal value of the title actually paid less than that on invested capitals. Many believed that the measure would not be followed through in view of the strong opposition. But in 1886 it was carried out, along with a foreign loan of six million pound sterling, which guaranteed the consolidation of the floating debt, and another of 50,000 contos at five percent. These two loans together made the conversion feasible: the first supplying funds to redeem bonds whose holders did not accept the conversion, the second demonstrating that there was a market for bonds at that level of capital return.

The last cabinet of the Empire (June-November 1889) implemented a thorough monetary reform, which recognized the right of issue by non-governmental banks on gold reserves, since for the first time in many years the exchange rate reached par level. The abolition of slavery, enacted the previous year, had forced the Monarchy to support its political base, the former slave-owners. A foreign loan was obtained in 1888 and a national loan issued in 1889, the intent of which was to finance agriculture in the hope that this would provide compensation for the slave-owners. This proposal was not approved by Parliament, which considered that they had been more than compensated by years of unpaid compulsory labor. The national loan was then put to finance under very favorable terms agricultural credit operations through Bancos de Auxilio à Lavoura. These operations resulted in an unusual volume of transactions on the Stock Exchange in the shares of issuing banks and of those financing agriculture. In this climate of financial euphoria, the Republic was proclaimed.

#### 4. Domestic Public Debt During the First Years of the Republic, 1889-1914

The monetary and banking reform of the interim republican government extended into various financial areas. Of these, those which are of greatest relevance to us are the attempt to convert the debt from five percent paper to four percent gold and the transformation of the national loan of 1889 into reserves for bank issues.

Table 2: Holders of Brazilian Government Bonds in 1890

Coverage of 5 % bonds in circulation	100.0 %
Coverage of total domestic debt in circulation	85.6 %
Individuals	68.8 %
Minors	10.3 %
Banks	9.7 %
Religious institutions	6.2 %
Firms	3.5 %
Government agencies	0.9 %
State and municipal legislative bodies	0.1 %
Holders unknown (in Amazonas, Goiás and Mato Grosso)	0.5 %
Regional distribution, by States	
Rio de Janeiro	87.1 %
Bahia	5.8 %
Pernambuco	1.5 %
São Paulo	1.2 %
Maranhão	1.1 %
Others	3.3 %

Source: *Relatório da Fazenda, Brasil* (1891).

The conversion of the debt and the reduction of the interest rate would become possible by requiring that the payment of import taxes should be made in gold, thus enabling the state to pay the lower rate with gold-based funds. The holder would be

compensated for the one percent difference by the stability of the currency he received. As is common in a change of regime, the republic severely criticized the Monarchy's neglect in not providing for the amortization of the domestic public debt. The first republican Finance Minister thought that only "retired" funds could be placed in bonds of the public debt, that "to pay high rates to this type of bonds diverts private capitals from industry, encourages the indolence of those who live as parasites of the state and, contributing to an increase in the general rate of money in the market, increases the cost of production, reducing salaries or exaggerating prices" (*Relatório da Fazenda, Brasil* 1891: 120; see Table 2).

The new regime suspended the loans made with funds from the national loan to Bancos de Auxilio à Lavoura, which, being politically identified with bank issues, were based on reserves constituted half by gold and half by titles from this loan. This would bring credit to the urban activities closer to the republican movement. The military movement which led to the proclamation of the Republic prevented those banks, identified with the previous regime, from maintaining their issues in circulation, and soon these banks called in their issues. Reacting to this, the Finance Minister found other bankers and guaranteed in part with titles of the public debt the issue of bank paper currency, thus conferring on these issues the confidence usually given to Treasury notes. In return, the following requirements were made: (a) at the outset of the operation a reduction by two percent in the interest rate of bonds, plus a further half percent reduction every year, until the full cancellation of all interest; (b) the bonds would not be allowed to be resold; and (c) a fund to be created with ten percent of the profits to repurchase the capital invested in the bonds. This transaction both freed the government from defraying part of the interest payment on the bonds and established the gradual cancellation of this debt within a certain time span. The bonds of the loan of 1889 were thus withdrawn from circulation and deposited with the Treasury as reserve for bank issues.

The first years of the Republic were shaken by political movements of discontent. Besides Monarchist reaction in the South of the country, there were also divisions in the armed forces, with the Navy opposing the Army. Military expenditure grew considerably to finance increased pay and troop movements. Political instability was reflected in the lack of confidence in the financial system and in the constant resort to paper money issues, which, in turn, expressed itself in panic on the Stock Exchange and the depreciation of the currency. Brazilian society was at the time undergoing profound transformations which were provoked by the inflow of immigrants and the growing use of paid labor, which required an increase in funds in circulation. The poor performance of the currency, which was due to inflation, frustrated the conversion of the debt. To pay four percent gold represented an increasing burden on the Treasury, not the least because in 1891 the gold-based tax on imports was suspended. For this reason the government was authorized to pay the gold-related interest on national loans in the domestic currency at the current exchange rates.

The alliance of the Navy with the Monarchists of Rio Grande do Sul in 1893 spread the rebel movement to Santa Catarina and Paraná. Both sides were guilty of massacres, with 10,000 soldiers losing their lives. In reaction, the government did not hesitate to employ part of the funds deposited as bank reserves in the Treasury. The issuing banks which found themselves in difficulties were quick in requesting new credits from the government, with the reserves as guarantee. Exchange speculation in the futures market led by the foreign banks reached a peak, with the government unable to control it. The division of the armed forces also made it possible for the republican civilians to win the elections.

With a conservative government in power which, led by the Paulista coffee planters, was enjoying great confidence by both the domestic and the international financial communities, it was possible to obtain in 1895 a new domestic issue of 100,000 contos (4.2 million pounds) at 5 percent as a means of demon-

strating the national creditworthiness of the new government. The Finance Minister decided to redeem the mass of bank paper money in circulation and to hand back control over issues to the Treasury. This required the conversion of the bonds held as reserves.<sup>2</sup> Exports, which had been until then weakened by the fall in coffee prices, resurged thanks to a new product – rubber – which returned to the international market the confidence that Brasil was once again creditworthy. A new loan of two million pounds sterling was granted in London to allow the servicing of the foreign debt. In fact, it was impossible for the government to buy exchange drafts in a highly speculative market without provoking strong waves.

The South of the country had not yet been fully pacified, when in the North-East, for the first time in the history of Brazil, the poverty-stricken peasants erupted in revolt. In the religious settlement of Canudos, in the hinterland of Bahia, a huge messianic movement organized itself under the leadership of Antônio Conselheiro, which first challenged the local élites, and then the Army itself. Another national loan became necessary, but, having been floated at five percent, it only found takers at six percent.<sup>3</sup> Between 1896 and 1897 four military expeditions were launched to quell peasant resistance and finally consolidate the Republic.

Measures of monetary discipline could not be taken before 1898 and then they turned out to be truly drastic, with the imposition of a moratorium on the foreign debt and the conversion of the domestic debt with interest in gold. In London the Brazilian government accepted all demands of the creditors. During the suspension of the debt service a gold fund was to be established with London banking houses, and the Rio de Janeiro customs income and other revenues would be held as surety. Paper money would be withdrawn from circulation in

---

2 The domestic loan was only registered in 1897.

3 While in the reports of the Finance Ministry the rate is given as five percent, the Caixa de Amortização registers it as six percent. It was only in 1902 that both reports agree on six percent.



proportion to the issues from the funding loan, and half of the import taxes would be assessed in gold. From this moment on, all official accounting would be recorded both in gold and in paper. Domestically the national loans of 1868 and 1879 and the four percent gold bonds were reconverted to five percent paper. Bonds were standardized since it had become impossible to substitute any lost or damaged ones and also because the Republic rejected all memories of the old-regime and a new contract had come into force. The market then offered five percent bonds, called "general bonds," and from 1897 onward others at six percent. The remainder, which paid gold interest, were in the process of liquidation. Although established by law as early as 1848, it was only then that an Amortization Fund for domestic loans was created.

After a banking crisis in 1900 which had been provoked by deflation, the economy came into full swing. Various railway companies were nationalized by means of "Rescission Bonds" floated in the international market, thus freeing the Treasury from the undertaking of a profit guarantee of twelve percent per annum. Two transactions well exemplify this period: the purchase of Acre from Bolivia and the urban reform in Rio de Janeiro. Rubber production promoted a migratory flow into the Amazon forest of Northeasterners who had been driven from their land by drought and the system of the latifundia. A border dispute arose when the Bolivian Syndicate was formed and protested against the presence of Brazilians within the territory of their concession. The diplomatic solution rested on the principle of *uti possidetis ita possideatis* and was facilitated by the payment of two million pounds sterling to the holders of the concession in return for Acre's attachment to Brazil. Rio de Janeiro, gateway to the country, was remodelled and modernized, transforming a colonial town into an art nouveau tropical capital. The modernizing thrust cut wide avenues with electric lighting and built a port ready to receive deep draft ships. To regularize Acre's situation, Brazil was authorized to avail itself of part of the issue of special bonds from the 1903 loan at five

percent paper for 17,300 contos (860,000 pounds), and by two foreign loans – 8.5 million pounds in 1903-05, and 4.5 million in 1911.

The appreciation of the domestic currency, however, hurt coffee exporters, whose over-production had forced international prices down. In 1906 the government intervened both in the coffee and in the exchange markets. With a three million pound loan to the State of São Paulo it effected a policy of stockpiling, thus raising the price of coffee. As to the currency market, it established the Caixa de Conversão for coffee bills, at the rate of 15 d. per milreis. This coincided with the expansion of the international capital market, which sought opportunities to invest in the country, mainly in public service companies, banks and insurance companies. The foreign debt grew during these years to supply funds for the modernization of the infrastructure and for transport projects. The domestic debt grew in 1909 due to the expansion of the railways.

During the period preceding the crisis in the international capital market which took place on the eve of the First World War, new funds were entering Brazil at a considerable rate, consisting of loans to the federal state and municipal governments as well as to private companies. From 1907 to 1911 British placements alone, for which comprehensive data are available, reached 116.2 million pounds (*Relatório da Fazenda, Brasil* 1912: 201, 207). Prices for almost all Brazilian loans on the London market and for public bonds on the Rio de Janeiro Stock Exchange were quoted above par. Expenses to guarantee coffee stock piles were more than compensated for by the maintenance of the domestic level of earnings. The loss of the rubber market, coffee over-production and the rising volume of the foreign and domestic debt were all symptoms of the imminent crisis, but apparently did not cause concern to those in power, who were always optimistic about future developments.

## 5. Conclusions

Brazilian public debt can be attributed during its first phase to military expenses beginning with the War of Independence, followed by the formation of a national state and the struggle for hegemony in the River Plate Basin, centering on the Paraguayan War in 1864-1870. From then on the cost of the debt service was the main burden on the budget, except for the period of conflict between the Army and the Navy and, immediately afterwards, the suppression of the peasant revolt in the hinterland of the North-East.

After these turmoils the budget covered both the efforts to modernize public services and the payment of interest and amortization of previous debts incurred by military expenses.

Until 1860, that is, during the consolidation of the Empire, the financing through public debt – both domestic and foreign – kept within a stable limit, never exceeding much more than 30 percent of fiscal revenue. After the war against Paraguay this situation was drastically changed, requiring the first conversion of the domestic debt in 1886 and the negotiation of a funding loan for the foreign debt in 1898. The expansion of the capital market from then on opened up further foreign sources of funds, with the public debt financing becoming once again stable, never exceeding more than 25 percent of current incomes.

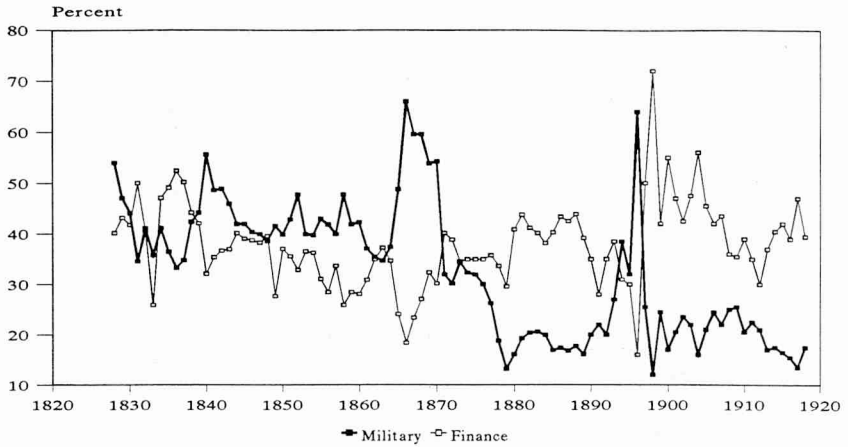
The service of the domestic debt is much more systematic than that of the foreign debt. Since foreign debt maturities are fixed, while domestic titles are open-ended, the government can delay over long periods the payment of amortizations on domestic loans, but must resort to new foreign loans to pay off old ones.

The purpose of this detailed annual survey is to show how debt financing was a constant issue since independence. From the 1840s onwards the domestic market acquired an unquestionable importance, becoming even dominant between 1865

and 1890. When foreign financing takes the lead, this coincided with a deliberate thrust towards Latin American markets by foreign investors.

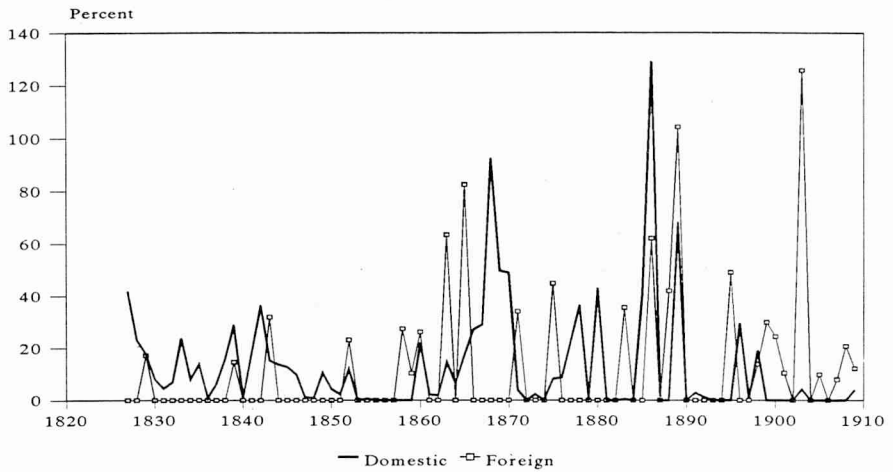
Another aspect which should be emphasized are the three renegotiations of the domestic debt. The first, in 1886, and the last, in 1898, after initial reactions, was quickly followed by the acceptance of the new rules. The second, which was proposed under volatile political conditions, turned out to be impracticable. This was not due to the reluctance of the market, but because the government was unable to maintain its terms. Especially in the light of the arguments employed by the ministers responsible, all three do, however, provide interesting food for thought for the present situation.

Figure 1: Brazil - Military and Finance Expenses as Percentage of Total Expenses, 1828-1918



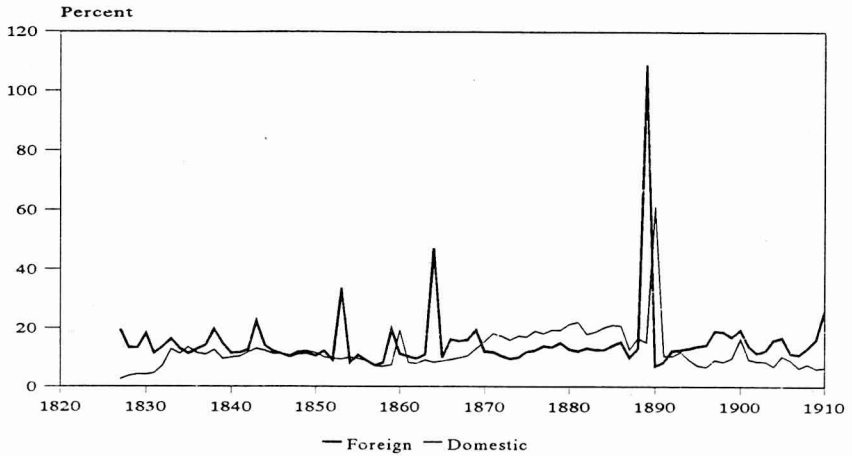
Sources: Relatório da Fazenda, Brasil (1828-1919).

Figure 2: Brazil - Government Debt Resources as Percentage of Fiscal Revenue, 1827-1910



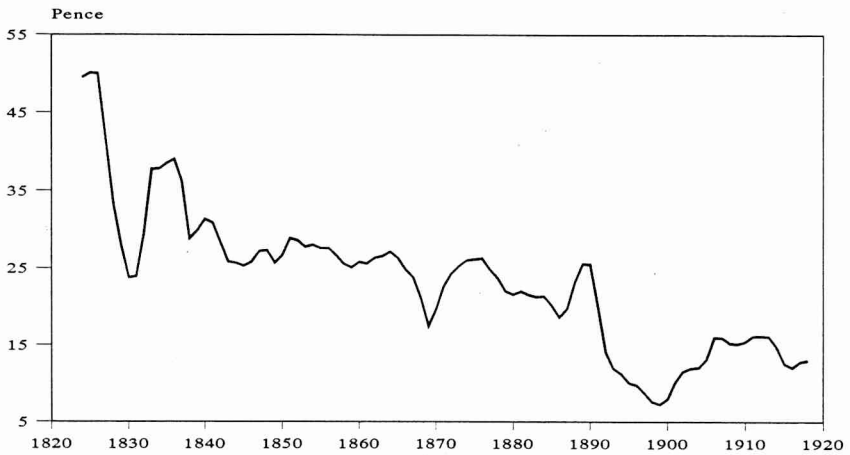
Source: Table 10.

Figure 3: Brazil - Government Debt Service as Percentage of Fiscal Revenue, 1827-1910



Sources: Tables 10 and 11.

Figure 4: Brazil - Exchange Rate for Fiscal Year, 1824-1918 (Pence per Milreis)



Source: Table 12.

## Notes concerning the Tables 3-9:

- a For the first year of each loan, interest was the initial balance pro rata since the date of the loan.
- b In thousands of pound sterling.
- c Average discount on amortization. Actual discounts were obtained, when available, or estimated from the years available (loans no. 3, 5, 8, 10-18). The average discount of the other loans (no. 1, 2, 4, 6, 7, 9) were estimated from the average of various loans.
- d "Term" signifies the number of the years with positive debt balance. For loans 15, 17 and 18, Table 4 reports the years until 1889 and Table 5 the full term.
- e "Average Annual Debt". The average of the annual balances for each loan during the full term of the loan. For loans 15, 17 and 18, Table 4 states the average up to 1889 and Table 5 for the full term.
- f "Total Estimated Interest" or sum of the annual estimated interests. After the first year of each loan the annual interest was the interest on the average between the previous and the current balance, pro rata temporis. For loans 15, 17 and 18, Table 4 adds up the interests up to 1889 and Table 5 for the full term.
- g "Funds Imported" indicates the amount obtained by each loan, discounted for its type.
- h "Funds Exported" include the amount of amortizations, discounted as described in note c, plus 0.3 percent commission on amortization payments as well as the total estimated interest plus one percent commission on interest payments.
- i "Export Balance" indicates the funds exported minus the funds imported for each loan.
- j The "Total Annual Debt" comprises all annual balances of each loan.
- k "Amortization" includes the annual amortization payments for the different loans or the difference between the previous and the current debt.
- l The "Transfer Balance" states the result of imported funds minus exported funds.
- m "Increase in Debt" totals all new loans.

Tables 8 and 9: "Iss.": issue or amount issued since the last fiscal year. "Am.": amortization or amount amortized since last period, "Circ.": circulation or total issues minus total amortization until that date. "Con.": conversion. "Dep.": deposit. "Year" indicates the end of the fiscal year. "Rec.": reconversion.

*Sources:* For annual balances outstanding, see Bouças (1950). For general descriptions of the loans, see Bouças (1950) and *Séries Estatísticas, Brasil* (1986: 133). For amortization discounts, see *Relatório da Fazenda, Brasil* (1823-1919). Tables 8 and 9: *Relatório da Fazenda, Brasil* (1827-1919). A fire in the Caixa de Amortização in 1913 made the publication of that year's Relatório impossible. Collecting data for the period 1911-1914 was therefore prevented.

Table 3: Brazil – Foreign Debt by Loan, Year-End Balances, 1824-1870 (Thousands of Pound Sterling)

Loan No.	1+2	3	4	5	6	7	8	9	10	11	12
Date	8+9/24	29/8/25	3/7/29	5/2/39	18/2/43	27/7/52	19/5/58	23/2/59	16/3/60	7/10/63	12/9/65
Interest (%) <sup>a</sup>	5	5	5	5	5	4.5	4.5	5	4.5	4.5	5
Amount <sup>b</sup>	3,686.2	1,400	769.2	411.2	732.6	1,040.6	1,526.5	508	1,373	3,855.3	6,963.6
Currency	£	£	£	£	£	£	£	£	£	£	£
Type (%)	81.383	100	52	76	85	95	95.5	100	90	88	74
Am. Dsc. (%) <sup>c</sup>	85.3	100	85.3	99.664	85.3	85.3	89.07	85.3	85.832	89.65	100
1824	1,333.3										
1825	3,686.2	1,400.0									
1826	3,686.2	1,350.0									
1827	3,566.2	1,300.0									
1828	3,506.2	1,300.0									
1829	3,450.0	1,300.0	769.2								
1830	3,393.5	1,300.0	638.2								
1831	3,393.5	1,300.0	638.2								
1832	3,393.5	1,300.0	638.2								
1833	3,393.5	1,300.0	638.2								
1834	3,393.5	1,300.0	638.2								
1835	3,393.5	1,300.0	638.2								
1836	3,393.5	1,275.0	638.2								
1837	3,393.5	1,225.0	638.2								
1838	3,393.5	1,175.0	638.2								
1839	3,393.5	1,137.5	638.2	411.2							
1840	3,393.5	1,137.5	638.2	411.2							
1841	3,393.5	1,137.5	638.2	411.2							
1842	3,393.5	1,137.5	638.2	411.2							
1843	3,393.5	1,011.6	638.2	411.2	732.6						
1844	3,393.5	1,011.6	638.2	411.2	732.6						
1845	3,393.5	1,011.6	638.2	411.2	732.6						
1846	3,393.5	1,011.6	638.2	411.2	732.6						
1847	3,393.5	1,011.6	638.2	411.2	732.6						
1848	3,393.5	1,011.6	638.2	411.2	732.6						



Table 3 (Cont.)

Loan No.	1+2	3	4	5	6	7	8	9	10	11	12
Date	8+9/24	29/8/25	3/7/29	5/2/39	18/2/43	27/7/52	19/5/58	23/2/59	16/3/60	7/10/63	12/9/65
Interest (%) <sup>a</sup>	5	5	5	5	5	4.5	4.5	5	4.5	4.5	5
Amount <sup>b</sup>	3,686.2	1,400	769.2	411.2	732.6	1,040.6	1,526.5	508	1,373	3,855.3	6,963.6
Currency	£	£	£	£	£	£	£	£	£	£	£
Type (%)	81.383	100	52	76	85	95	95.5	100	90	88	74
Am. Dsc. (%) <sup>c</sup>	85.3	100	85.3	99.664	85.3	85.3	89.07	85.3	85.832	89.65	100
1849	3,393.5	1,011.6	638.2	411.2	732.6						
1850	3,393.5	1,007.1	638.2	411.2	732.6						
1851	3,268.6	969.3	638.2	401.2	732.6						
1852	3,265.3	954.3	613.0	396.1	709.8	1,040.6					
1853	3,173.0		597.5	391.2	674.9	1,035.1					
1854	3,133.2		591.5	391.2	673.2	1,035.1					
1855	3,026.5		564.0	379.5	654.8	1,011.1					
1856	2,956.0		546.0	373.8	618.2	999.1					
1857	2,882.5		527.5	367.8	581.6	986.1					
1858	2,805.5		508.0	361.5	545.0	972.9	1,526.5				
1859	2,724.6			354.9	508.4	958.2	1,478.0	459.5			
1860	2,639.7			348.0	471.8	942.1	1,441.3	452.0	1,360.1		
1861	2,550.0			340.8	435.2	925.1	1,402.7	444.2	1,333.5		
1862	2,450.9			333.2	398.6	908.4	1,364.8	435.9	1,307.2		
1863	2,358.6			325.2	362.0	890.0	1,323.3	427.2	1,278.6	3,855.3	
1864				316.8		869.9	1,277.7	418.1	1,247.1	3,817.5	
1865				307.8		845.6	1,222.7	408.4	1,209.0	3,778.1	6,963.6
1866				298.2		816.2	1,156.1	397.6	1,163.0	3,622.8	6,963.6
1867				288.2		787.3	1,091.3	386.0	1,116.2	3,506.4	6,893.2
1868				277.9		757.1	1,022.7	374.0	1,066.2	3,380.3	6,819.1
1869						727.0	954.7	361.8	1,014.8	3,264.8	6,741.2
1870						699.8	892.9	348.6	968.7	3,151.2	6,659.5

Table 4: Brazil – Foreign Debt by Loan, Year-End Balances, 1871-1889 (Thousands of Pound Sterling)

Loan No.	1+2	3	4	5	6	7	8	9	10
Date	1824	1825	1829	1839	1843	27/7/52	19/5/58	23/2/59	16/3/60
Interest (%) <sup>a</sup>	5	5	5	5	5	4.5	4.5	5	4.5
Amount <sup>b</sup>	3,686.2	1,400	769.2	411.2	732.6	1,040.6	1,526.5	508	1,373
Currency	£	£	£	£	£	£	£	£	£
Type (%)	81.383	100	52	76	85	95	95.5	100	90
Am. Dsc. (%) <sup>c</sup>	85.3	100	85.3	99.664	85.3	85.3	89.07	85.3	85.832
1871						671.9	830.1	335.2	919.7
1872						642.6	763.8	321.3	872.2
1873						613.1	696.9	306.8	824.3
1874						582.7	628.2	291.6	774.3
1875						551.2	556.8	275.9	721.3
1876						518.2	509.9	259.3	665.2
1877						483.7	424.4	241.7	606.5
1878						447.5	317.2	223.3	546.0
1879						425.8	279.1	494.4	494.4
1880						390.3	198.7	420.0	420.0
1881						330.4	64.3	355.2	355.2
1882								286.0	286.0
1883								213.6	213.6
1884								137.9	137.9
1885								58.8	58.8
1886									
1887									
1888									
1889									
Term (Years) <sup>d</sup>	40	28	30	30	21	30	24	20	26
Av. An. Debt <sup>e</sup>	3193	1267	625	373	630	762	893	358	806
Ttl. Est. Int. <sup>f</sup>	6392	1634	938	559	661	1029	964	358	903
Funds Imp. <sup>g</sup>	3,000	1,400	400	313	623	989	1,458	508	1,236
Funds Exp. <sup>h</sup>	9,610	3,055	1,605	976	1,295	1,929	2,337	797	2,135
Exp. Balance <sup>i</sup>	6,610	1,655	1,205	664	672	941	880	289	899

Table 4 (Cont.)

Loan No.	11	12	13	14	15	16	17	18
Date	7/10/63	12/9/65	23/2/71	18/1/75	22/1/83	26/2/86	28/6/88	30/9/89
Interest (%) <sup>a</sup>	4.5	5	5	5	4.5	5	4.5	4
Amount <sup>b</sup>	3,855.3	6,963.6	3,459.6	5,301.2	4,599.6	6,431	6,297.3	19,837
Currency	£	£	£	£	£	£	£	£
Type (%)	88	74	89	96.5	89	95	97	90
Am. Dsc. (%) <sup>c</sup>	89.65	100	96.375	95.957	87.863	99.882	69	100
1871	3,035.7	6,573.6	3,459.6					
1872	2,919.9	6,483.3	3,459.6					
1873	2,800.4	6,388.5	3,423.2					
1874	2,678.9	6,288.9	3,385.4					
1875	2,550.8	6,184.2	3,346.2					
1876	2,407.4	6,074.4	3,301.4	5,301.2				
1877	2,258.7	5,959.0	3,255.0	5,272.4				
1878	2,110.6	5,837.1	3,205.5	5,211.3				
1879	1,948.0	5,709.0	3,151.8	5,145.4				
1880	1,791.1	5,575.9	3,008.3	5,079.5				
1881	1,628.4	5,435.1	3,043.9	5,013.3				
1882	1,496.5	5,287.2	2,988.0	4,944.8				
1883	1,290.3	5,131.9	2,928.7	4,872.4	4,599.6			
1884	1,108.4	4,968.6	2,865.8	4,795.4	4,543.8			
1885	974.6	4,797.1	2,797.8	4,713.3	4,485.8			
1886	722.2	4,616.9	2,728.3	4,627.7	4,427.8	6,431.0		
1887	515.3	4,427.6	2,655.9	4,584.1	4,369.9	6,398.9		
1888	299.0	4,228.7	2,618.5	4,448.6	4,310.3	6,365.9	6,297.3	
1889				4,248.6	4,248.6		6,265.9	19,837.0
Term (Years) <sup>d</sup>	26	24	18	14	7	3	2	1
Av. An. Debt <sup>e</sup>	2,343	5,875	3,090	4,951	4,427	6,399	6,282	19,837
Ttl. Est. Int. <sup>f</sup>	2,741	7,050	2,781	3,466	1,383	960	424	198
Funds Imp. <sup>g</sup>	3,393	5,153	3,079	5,116	4,094	6,109	6,108	17,853
Funds Exp. <sup>h</sup>	6,235	14,105	6,153	8,602	5,424	7,383	424	198
Exp. Balance <sup>i</sup>	2,842	8,952	3,074	3,487	1,331	1,274	- 5,684	- 17,655

Table 5: Brazil - Foreign Debt by Loan, Year-End Balances, 1890-1914 (Thousands of Pound Sterling)

Loan No.	15	17	18	19	20	21	22	23	24
Date	22/1/83	28/6/88	30/9/89	17/7/95	FL/98	RB/1901	MG/93	RJ/03	SP/07
Interest (%) <sup>a</sup>	4.5	4.5	4	5	5	4	5	5	5
Amount <sup>b</sup>	4,599.6	6,297.3	19,837	7,442	8,613.72	16,619.3	3,388.1	8,500	3,000
Currency	£	£	£	£	£	£	£	£	£
Type (%)	89	97	90	85	100	100	80	100	95
Am. Dsc. (%) <sup>c</sup>	87.863	69	100	99.664	85.3	85.3	89.07	85.3	85.832
1890	4,179	6,195	19,778						
1891	4,086	6,106	19,651						
1892	3,986	5,992	19,472						
1893	3,872	5,884	19,305						
1894	3,765	5,769	19,122						
1895	3,653	5,660	18,952	7,442					
1896	3,528	5,535	18,756	7,442					
1897	3,382	5,393	18,533	7,389					
1898	3,292	5,299	18,388	7,332	1,421				
1899	3,292	5,299	18,388	7,332	4,329				
1900	3,267	4,823	18,388	7,332	7,198				
1901	3,267	4,823	18,388	7,332	8,614				
1902	3,267	4,823	18,388	7,332	8,614	14,440	3,388	8,500	
1903	3,267	4,823	18,388	7,332	8,614	14,052	3,388	8,500	
1904	3,267	4,823	18,388	7,332	8,614	15,650	3,388	8,500	
1905	3,267	4,823	18,388	7,332	8,614	15,509	3,388	8,500	
1906	3,267	4,823	18,388	7,332	8,614	14,822	3,388	8,500	3,000
1907	3,267	4,823	18,388	7,332	8,614	14,632	3,388	8,500	2,865
1908	3,267	4,823	18,388	7,332	8,614	14,256	3,388	8,370	2,730
1909	3,158	4,691	18,211	7,251	8,614	13,996	8,235	8,235	2,595
1911	3,045	4,553	18,021	7,166	8,592	13,775	8,092	8,092	2,460
1912	2,901	4,403	17,821	7,006	8,542	13,373	8,000	8,000	2,325
1913	2,790	4,258	17,600	6,979	8,500	13,143	7,783	7,783	2,190
1914	2,713	4,173	17,468	6,926	8,425	12,935	7,698	7,698	2,055
Term (Years) <sup>d</sup>	32.0	27.0	26.0	20.0	17.0	12.0	7.0	12.0	8.0
Av. An. Debt <sup>e</sup>	3,603	5,185	18,584	7,279	7,832	14,215	3,388	8,265	2,528
Ttl. Est. Int. <sup>f</sup>	4,971	5,828	16,962	6,826	6,324	6,186	1,002	4,489	872
Funds Imp. <sup>g</sup>	4,094	6,108	17,853	6,326	8,614	16,619	2,710	8,500	2,850
Funds Exp. <sup>h</sup>	6,913	8,017	19,507	7,412	6,576	9,942	4,410	5,338	1,828
Exp. Balance <sup>i</sup>	2,820	1,909	1,654	1,087	-2,037	-6,677	1,700	-3,162	-1,022

Table 5 (Cont.)

Loan No.	25	26	27	28	29	30	31	22	33	34
Date	22/7/08	EF 08/9	REC/09	CONV/10	EF/10	R\$/11	VC/11	VB/11	LB/10	1913
Interest, (%) <sup>a</sup>	5	5	5	4	4	4	4	4	4	5
Amount <sup>b</sup>	4,000	3,964	1,587	10,000	3,964	4,500	2,400	2,380	1,276.3	11,000
Currency	£	Fr 100 M	Fr 40 M	£	Fr 100 M	£	£	Fr 60 M	£	£
Type (%)	96	100	95.25	87.5	78.83	92	83	83	90	97
Am. Dsc. (%) <sup>c</sup>	89.65	100	96.375	95.957	87.863	99.862	69	100		
1890										
1891										
1892										
1893										
1894										
1895										
1896										
1897										
1898										
1899										
1900										
1901										
1902										
1903										
1904										
1905										
1906										
1907										
1908	4,000	1,982	1,587							
1909	3,682	3,964	1,587		3,964					
1910	3,176	3,964	1,587	10,000						
1911	2,818	3,964	1,587	9,941	3,964	4,500	2,400	2,380		
1912	2,801	3,964	1,587	9,901	3,964	4,776	2,400	2,380		
1913	2,045	3,926	1,587	9,808	3,918	4,276	2,400	2,380	1,276	11,000
1914	1,839	3,916	1,587	9,768	3,903	4,043	2,400	2,380	1,211	11,000
Term (Years) <sup>d</sup>	7.0	7.0	6.0	5.0	5.0	4.0	4.0	4.0	2.0	2.0
Av. An. Debt <sup>e</sup>	2,909	3,669	1,587	9,884	3,943	4,324	2,400	2,380	1,243	11,000
Ttl. Est. Int. <sup>f</sup>	860	1,120	391	1,559	622	513	284	281	98	1,084
Funds Imp. <sup>g</sup>	3,840	3,964	1,512	8,750	3,125	4,140	1,982	1,975	1,149	10,670
Funds Exp. <sup>h</sup>	3,035	1,180	395	1,807	690	977	287	284	165	1,095
Exp. Balance <sup>i</sup>	- 805	- 2,784	- 1,117	- 6,943	- 2,435	- 3,163	- 1,705	- 1,691	- 984	- 9,375

Table 6: Brazil – Foreign Debt, Aggregates, 1824-1870 (Thousands of Pound Sterling)

Year	Annual Amounts					Accumulated Totals since 1824					
	Total Debt <sup>j</sup>	Increase in Debt	Imported Funds	Amortization <sup>k</sup>	Interest Payments	Transfer Balance	Increase in Debt <sup>m</sup>	Imported Funds	Amortization <sup>k</sup>	Interest Payments	Transfer Balance
1824	1,333	1,333	1,000	0	22	978	1,333	1,000	0	22	978
1825	5,086	3,753	3,400	0	119	3,280	5,086	4,400	0	141	4,257
1826	5,036	-	-	50	253	-306	5,086	4,400	50	395	3,951
1827	4,866	-	-	152	249	-405	5,086	4,400	202	644	3,546
1828	4,806	-	-	51	243	-296	5,086	4,400	254	887	3,250
1829	5,519	769	400	48	259	90	5,855	4,800	301	1,146	3,340
1830	5,332	-	-	160	272	-435	5,855	4,800	461	1,418	2,905
1831	5,332	-	-	0	267	-269	5,855	4,800	461	1,684	2,367
1832	5,332	-	-	0	267	-269	5,855	4,800	461	1,951	2,636
1833	5,332	-	-	0	267	-269	5,855	4,800	461	2,217	2,097
1834	5,332	-	-	0	267	-269	5,855	4,800	461	2,484	1,828
1835	5,332	-	-	0	267	-269	5,855	4,800	461	2,751	1,559
1836	5,307	-	-	25	266	-294	5,855	4,800	486	3,017	1,265
1837	5,257	-	-	50	265	-317	5,855	4,800	536	3,281	948
1838	5,207	-	-	50	262	-315	5,855	4,800	586	3,543	633
1839	5,580	411	313	38	279	-7	6,267	5,112	624	3,822	626
1840	5,580	-	-	0	279	-282	6,267	5,112	624	4,101	345
1841	5,580	-	-	0	279	-282	6,267	5,112	624	4,380	63
1842	5,580	-	-	0	279	-282	6,267	5,112	624	4,659	-219
1843	6,187	733	623	126	309	184	6,999	5,735	750	4,968	-34
1844	6,187	-	-	0	309	-312	6,999	5,735	750	5,277	-347

Table 6 (Cont.)

Year	Annual Amounts				Accumulated Totals since 1824						
	Total Debt	Increase in Debt	Imported Funds	Amortization	Interest Payments	Transfer Balance	Increase in Debt	Imported Funds	Amortization	Interest Payments	Transfer Balance
1845	6,187	-	-	0	309	-312	6,999	5,735	750	5,587	-659
1846	6,187	-	-	0	309	-312	6,999	5,735	750	5,896	-972
1847	6,187	-	-	0	309	-312	6,999	5,735	750	6,205	-1,284
1848	6,187	-	-	0	309	-312	6,999	5,735	750	6,515	-1,597
1849	6,187	-	-	0	309	-312	6,999	5,735	750	6,824	-1,909
1850	6,183	-	-	5	309	-317	6,999	5,735	754	7,133	-2,226
1851	6,010	-	-	154	306	-464	6,999	5,735	909	7,440	-2,690
1852	6,979	1,041	989	64	318	603	8,040	6,724	973	7,758	-2,087
1853	5,872	-	-	1,086	325	-1,417	8,040	6,724	2,058	8,082	-3,504
1854	5,824	-	-	41	288	-331	8,040	6,724	2,099	8,370	-3,835
1855	5,636	-	-	162	282	-448	8,040	6,724	2,261	8,652	-4,283
1856	5,493	-	-	123	273	-399	8,040	6,724	2,384	8,926	-4,682
1857	5,346	-	-	127	266	-396	8,040	6,724	2,510	9,192	-5,078
1858	6,719	1,527	1,458	131	301	1,022	9,566	8,182	2,641	9,493	-4,056
1859	6,484	460	508	637	326	-460	10,026	8,690	3,279	9,819	-4,516
1860	7,655	1,360	1,236	174	352	705	11,386	9,925	3,453	10,171	-3,811
1861	7,432	-	-	193	358	-556	11,386	9,925	3,646	10,530	-4,367
1862	7,199	-	-	201	347	-553	11,386	9,925	3,847	10,877	-4,919
1863	10,820	3,855	3,393	203	376	2,810	15,241	13,318	4,050	11,253	-2,110
1864	7,947	-	-	2,455	455	-2,923	15,241	13,318	6,505	11,708	-5,032
1865	14,735	6,964	5,153	155	461	4,532	22,205	18,471	6,660	12,169	-501
1866	14,418	-	-	282	695	-985	22,205	18,471	6,942	12,865	-1,485
1867	14,069	-	-	317	680	-1,005	22,205	18,471	7,259	13,545	-2,490
1868	13,697	-	-	337	663	-1,008	22,205	18,471	7,597	14,208	-3,499
1869	13,064	-	-	599	634	-1,241	22,205	18,471	8,196	14,842	-4,740
1870	12,721	-	-	313	617	-936	22,205	18,471	8,509	15,458	-5,676

Table 7: Brazil - Foreign Debt, Aggregates, 1871-1914 (Thousands of Pound Sterling)

Year	Annual Amounts					Accumulated Totals since 1824					
	Total Debt	Increase in Debt	Imported Funds	Amortization*	Interest Payments	Transfer Balance <sup>1</sup>	Increase in Debt	Imported Funds	Amortization*	Interest Payments	Transfer Balance
1871	15,826	3,460	3,079	323	748	2,000	25,664	21,550	8,831	16,206	- 3,676
1872	15,463	-	-	331	757	-1,096	25,664	21,550	9,162	16,963	- 4,772
1873	15,053	-	-	375	738	-1,122	25,664	21,550	9,537	17,701	- 5,894
1874	14,630	-	-	388	719	-1,115	25,664	21,550	9,925	18,420	- 7,009
1875	19,488	5,301	5,116	407	950	3,748	30,966	26,666	10,332	19,371	- 3,262
1876	19,037	-	-	414	943	-1,367	30,966	26,666	10,746	20,313	- 4,629
1877	18,501	-	-	492	919	-1,422	30,966	26,666	11,238	21,232	- 6,051
1878	17,899	-	-	555	891	-1,457	30,966	26,666	11,793	22,124	- 7,508
1879	17,154	-	-	676	856	-1,543	30,966	26,666	12,469	22,980	- 9,050
1880	16,554	-	-	554	828	-1,392	30,966	26,666	13,023	23,807	- 10,442
1881	15,871	-	-	629	797	-1,436	30,966	26,666	13,652	24,605	- 11,878
1882	15,003	-	-	784	762	-1,556	30,966	26,666	14,436	25,367	- 13,435
1883	19,037	4,600	4,094	529	923	2,631	35,565	30,759	14,965	26,290	- 10,804
1884	18,420	-	-	575	906	-1,491	35,565	30,759	15,540	27,196	- 12,295
1885	17,827	-	-	555	876	-1,441	35,565	30,759	16,095	28,072	- 13,737
1886	23,554	6,431	6,109	657	847	4,595	41,996	36,869	16,752	28,919	- 9,142
1887	22,952	-	-	569	1,138	-1,720	41,996	36,869	17,321	30,057	- 10,862
1888	28,568	6,297	6,108	644	1,248	4,202	48,294	42,977	17,965	31,305	- 6,660
1889	30,352	19,837	17,853	17,723	916	- 848	68,131	60,830	35,689	32,220	- 7,508
1890	30,152	-	-	199	1,262	-1,475	68,131	60,830	35,888	33,482	- 8,983
1891	29,843	-	-	309	1,251	-1,574	68,131	60,830	36,197	34,734	- 10,557
1892	29,451	-	-	393	1,236	-1,643	68,131	60,830	36,590	35,970	- 12,199
1893	29,061	-	-	390	1,220	-1,623	68,131	60,830	36,980	37,189	- 13,822
1894	28,657	-	-	404	1,203	-1,620	68,131	60,830	37,384	38,392	- 15,442





Table 8: Brazil – Domestic Debt, by Interest Group, 1827-1880 (Contos de Réis)

Year	6 %-Paper			6 %-Gold			5 %-Paper		
	Iss.	Am.	Circ.	Iss.	Am.	Circ.	Iss.	Am.	Circ.
1827, Je	4,906	0	4,906				100		100
1828, Je	3,681	60	8,527				36		136
1829, Je	3,538	102	11,963				36		172
1830, Je	1,918	154	13,727				36		208
1831, Je	1,050	198	14,579				32		240
1832, Ap	1,090	208	15,460				30	3	267
1833, Je	2,435	257	17,639				42	4	305
1834, Je	992	342	18,288				58	4	359
1835, Mr	1,933	791	19,430				25	25	359
1836, Mr	0	405	19,025				104	38	425
1837, Mr	800	419	19,407				116	10	531
1838, Je	2,000	361	21,046				105	0	636
1839, Je	4,972	28	25,990				9	0	645
1840, Je	0	210	25,779				106	77	674
1841, Mr	3,372	137	29,015				106	0	780
1842, D	6,723	0	35,738				164	0	944
1843, D	2,668	0	38,406				102	0	1,047
1844, Mr	2,495	0	40,900				347	0	1,393
1845, Mr	3,092	0	43,993				16	0	1,409
1846, Mr	2,514	0	46,506				20	0	1,429
1847, Mr	192	0	46,698				124	0	1,553
1848, Mr	14	0	46,712				198	0	1,751
1849, S	2,666	0	49,379				1	0	1,753
1850, Mr	1,201	0	50,580				0	0	1,753
1851, Mr	716	0	51,296				19	0	1,771
1852, Ap	4,286	0	55,582				2	0	1,773
1853, Mr	0	0	55,582				14	0	1,787

Table 8 (Cont.)

Year	6 %-Paper		6 %-Gold		5 %-Paper			
	Iss.	Am.	Circ.	Iss.	Am.	Circ.		
1854, D	214	0	55,796			3	0	1,791
1855, D	0	0	55,796			33	0	1,824
1856, D	0	0	55,796			5	0	1,829
1857, D	0	0	55,796			3	0	1,832
1858, D	5	0	55,801			4	0	1,836
1859, D	0	0	55,801			0	0	1,836
1861, Mr	9,692	0	65,493			1	0	1,838
1861, D	1,129	0	66,622			0	0	1,838
1862, D	1,079	0	67,701			0	0	1,838
1864, Mr	7,119	0	74,820			0	0	1,838
1865, Mr	3,599	0	78,419			0	0	1,838
1866, Mr	10,008	0	88,427			57	0	1,895
1867, Mr	15,887	0	104,314			22	0	1,917
1868, Mr	18,856	0	123,170			0	0	1,917
1869, Mr	35,837	0	159,007	30,000	0	33	0	1,950
1870, Mr	43,553	300	202,259	0	300	1	0	1,951
1871, Mr	46,417	309	248,368	0	309	19	0	1,970
1872, Mr	3,863	343	251,888	0	343	1	0	1,971
1873, Mr	23	360	251,552	0	360	1	0	1,972
1874, Mr	2,643	379	253,815	0	379	2	0	1,973
1875, Mr	69	390	253,495	0	390	3	0	1,976
1876, O	8,622	862	261,255	0	862	14	0	1,990
1877, Ap	8,735	0	269,989	0	0	0	0	1,990
1878, O	22,466	983	291,472	0	983	0	0	1,990
1879, Mr	40,000	0	331,472	0	0	-12	0	1,978
1880, Mr	0	2,193	329,279	0	2,193	12	0	1,990

Table 8 (Cont.)

Year	4 %-Paper		Total	
	Iss.	Am.	Iss.	Am.
1827, Je			5,006	0
1828, Je			3,717	60
1829, Je			3,574	102
1830, Je			1,954	154
1831, Je			1,082	198
1832, Ap			1,120	211
1833, Je			2,477	260
1834, Je			1,050	346
1835, Mr	101	0	2,059	817
1836, Mr	18	0	123	443
1837, Mr	0	0	916	429
1838, Je	0	0	2,105	361
1839, Je	0	0	4,981	28
1840, Je	0	0	106	288
1841, Mr	0	0	3,478	137
1842, D	0	0	6,887	0
1843, D	0	0	2,770	0
1844, Mr	0	0	2,842	0
1845, Mr	0	0	3,108	0
1846, Mr	0	0	2,533	0
1847, Mr	0	0	316	0
1848, Mr	0	0	213	0
1849, S	0	0	2,668	0
1850, Mr	0	0	1,201	0
1851, Mr	0	0	735	0
1852, Ap	0	0	4,288	0
1853, Mr	0	0	14	0

Table 8 (Cont.)

Year	4 %-Paper			Total		
	Iss.	Am.	Circ.	Iss.	Am.	Circ.
1854, D	0	0	120	217	0	57,706
1855, D	0	0	120	33	0	57,739
1856, D	0	0	120	5	0	57,744
1857, D	0	0	120	3	0	57,747
1858, D	0	0	120	10	0	57,757
1859, D	0	0	120	0	0	57,757
1861, Mr	0	0	120	9,694	0	67,451
1861, D	0	0	120	1,129	0	68,579
1862, D	0	0	120	1,079	0	69,658
1864, Mr	0	0	120	7,119	0	76,777
1865, Mr	0	0	120	3,599	0	80,376
1866, Mr	0	0	120	10,066	0	90,442
1867, Mr	0	0	120	15,908	0	106,351
1868, Mr	0	0	120	18,856	0	125,207
1869, Mr	0	0	120	65,870	0	191,077
1870, Mr	0	0	120	43,553	600	234,030
1871, Mr	0	0	120	46,436	618	279,848
1872, Mr	0	0	120	3,865	685	283,028
1873, Mr	0	0	120	24	720	283,232
1874, Mr	0	0	120	2,644	758	284,218
1875, Mr	0	0	120	72	780	283,510
1876, O	0	0	120	8,636	1,724	290,422
1877, Ap	0	0	120	8,735	0	299,157
1878, O	0	0	120	22,466	1,965	319,657
1879, Mr	0	0	120	39,988	0	359,645
1880, Mr	0	0	120	12	4,386	355,271

Table 9. Brazil – Domestic Debt by Interest Group, 1881-1910 (Contos de Réis)

Year	6 %-Paper			6 %-Gold			5 %-Paper			4.5 %-Gold		
	Iss.	Am.	Circ.	Iss.	Am.	Circ.	Iss.	Am.	Circ.	Iss.	Am.	Circ.
	1881, S	0	294	328,985	0	294	23,588	6	0	1,996	51,885	0
1882, Mr	0	0	328,985	0	0	23,588	0	0	1,997	0	0	47,631
1883, Mr	0	0	328,985	0	0	23,588	0	0	1,997	0	909	46,722
1884, Mr	606	788	328,803	0	788	22,800	0	0	1,997	0	2,001	44,721
1885, Mr	0	357	328,447	0	357	22,444	0	0	1,997	0	1,943	42,778
1886, Ap	0	397	328,050	0	397	22,047	50,000	0	51,997	0	95	42,683
1887, Mr	0	328,050	0	1,390	20,657	329,479	329,479	0	381,476	0	4,503	38,180
1888, Mr	0	0	0	0	819	19,839	0	0	381,476	0	2,308	35,873
1889, Mr	0	0	0	0	885	18,954	4	0	381,480	0	1,640	34,233
1890, Mr	0	0	0	0	1,936	17,018	0	0	381,480	0	3,882	30,351
1891, My	0	0	0	0	0	17,018	0	0	273,899	0	1,859	28,492
1892, Mr	0	0	0	0	1,070	15,948	6,611	0	263,449	0	336	28,157
1893, Mr	0	0	0	0	1,143	14,805	3,072	4,687	261,834	0	2,527	25,630
1894, Mr	0	0	0	0	1,263	13,542	222	0	262,056	0	868	24,762
1895, Mr	0	0	0	0	0	13,542	76	0	262,132	0	83	24,679
1896, Mr	0	0	0	0	1,288	12,254	7	0	262,126	0	0	24,679
1897, Mr	0	0	0	0	472	11,782	102,643	0	364,769	0	0	24,679
1898, Mr	0	0	0	0	198	11,585	1,925	0	366,626	0	0	24,679
1899, Mr	60,000	0	60,000	0	0	11,585	245	467	486,403	0	0	24,679
1900, Mr	0	0	60,000	0	4,457	7,128	0	1,518	486,886	0	4,130	20,549
1901, My	0	0	60,000	0	418	6,710	26	0	487,912	0	0	20,549
1902, Mr	0	443	59,557	0	0	6,710	0	0	488,816	0	0	20,549
1903, Mr	0	6,000	53,557	0	0	6,710	0	0	489,635	0	0	20,549
1904, Mr	0	0	53,557	0	321	6,389	17,300	0	506,935	0	1	20,548
1905, Mr	0	6,000	47,557	0	6,389	0	0	0	506,935	0	0	20,548
1906, Mr	0	10,475	37,082	0	0	0	0	0	506,935	0	0	20,548
1907, Mr	0	6,000	31,082	0	0	0	0	0	506,935	0	0	20,548
1908, Mr	0	6,000	25,082	0	0	0	0	0	506,935	0	0	20,548
1909, Mr	0	0	25,082	0	0	0	0	0	506,935	0	0	20,548
1910, Ap	0	6,000	19,082	0	0	0	18,083	0	525,018	0	0	20,548

Table 9 (Cont.)

Year	4 %-Paper			4 %-Gold			Total		
	Iss.	Am.	Circ.	Con.	Rec.	Circ.	Iss.	Am.	Circ.
1881, S	0	0	120				51,891	4,843	402,320
1882, Mr	0	0	120				0	0	402,320
1883, Mr	0	0	120				0	909	401,411
1884, Mr	0	0	120				606	3,577	398,440
1885, Mr	0	0	120				0	2,656	395,784
1886, Ap	0	0	120				50,000	888	444,897
1887, Mr	0	0	120				329,479	333,943	440,433
1888, Mr	0	0	120				0	3,126	437,307
1889, Mr	0	0	120				4	2,525	434,785
1890, Mr	109,694	0	18,470				109,694	97,162	447,317
1891, My	0	0	18,470	107,580	0	107,580	0	1,859	445,459
1892, Mr	0	0	18,470	124,642	0	124,642	6,611	1,406	450,664
1893, Mr	0	0	18,470	124,642	0	124,642	3,072	8,357	445,379
1894, Mr	0	0	18,470	124,642	0	124,642	222	2,131	443,470
1895, Mr	0	0	18,470	124,642	0	124,642	76	83	443,464
1896, Mr	0	0	18,470	124,655	0	124,655	7	1,288	442,184
1897, Mr	0	0	18,470	124,655	0	124,655	102,643	472	544,355
1898, Mr	0	0	18,470	124,723	0	124,723	1,925	198	546,082
1899, Mr	0	0	18,470	124,723	120,000	4,723	60,245	467	605,860
1900, Mr	109,694	0	120	124,723	122,000	2,723	0	28,455	577,405
1901, My	0	0	120	124,723	123,000	1,723	26	418	577,014
1902, Mr	0	0	120	124,723	123,904	819	0	443	576,571
1903, Mr	0	0	120	124,723	124,723	0	0	6,000	570,571
1904, Mr	0	0	120	124,723	124,723	0	17,300	322	587,548
1905, Mr	0	0	120	124,723	124,723	0	0	12,389	575,160
1906, Mr	0	0	120	124,723	124,723	0	0	10,475	564,685
1907, Mr	0	0	120	124,723	124,723	0	0	6,000	558,685
1908, Mr	0	0	120	124,723	124,723	0	0	6,000	552,685
1909, Mr	0	0	120	124,723	124,723	0	0	0	552,685
1910, Ap	0	0	120	124,723	124,723	0	18,083	6,000	564,768

*Table 10: Brazil – Fiscal Revenues and Funds Obtained from Domestic and Foreign Debt, 1827-1910 (Thousands of Pound Sterling)<sup>1</sup>*

Year	Fiscal Revenues	Domestic Debt	Foreign Debt	Year	Fiscal Revenues	Domestic Debt	Foreign Debt
1827	2,072	870	0	1861	4,702	1,040	1,236
1828	2,211	514	0	1861	5,331	120	0
1829	2,320	415	400	1862	5,754	118	0
1830	2,379	193	0	1863	5,348	788	3,393
1831	2,367	108	0	1864	6,195	407	0
1832	1,966	137	0	1865	6,247	1,103	5,153
1833	1,640	390	0	1866	6,050	1,645	0
1834	2,045	165	0	1867	6,424	1,870	0
1835	2,377	330	0	1868	6,254	5,786	0
1836	2,278	20	0	1869	6,365	3,167	0
1837	2,238	138	0	1870	7,758	3,798	0
1838	1,591	253	0	1871	9,013	363	3,079
1839	2,132	619	313	1872	10,349	2	0
1840	2,451	14	0	1873	11,657	278	0
1841	2,399	447	0	1874	11,130	8	0
1842	2,218	812	0	1875	11,404	941	5,116
1843	1,947	298	623	1876	10,985	955	0
1844	2,200	304	0	1877	10,214	2,323	0
1845	2,554	327	0	1878	10,767	3,942	0
1846	2,763	272	0	1879	10,248	1	0
1847	3,033	36	0	1880	10,815	4,662	0
1848	2,739	24	0	1881	11,767	0	0
1849	2,695	285	0	1882	11,703	0	0
1850	2,989	133	0	1883	11,489	54	4,094
1851	3,789	88	0	1884	11,790	0	0
1852	4,259	510	989	1885	10,246	4,200	0
1853	4,199	2	0	1886	9,844	25,562	6,109
1854	4,025	25	0	1887	17,227	0	0
1855	4,132	4	0	1888	14,532	0	6,108
1856	4,437	1	0	1889	17,123	11,678	17,853
1857	5,454	0	0	1890	20,721	0	0
1858	5,309	1	1,458	1891	18,917	546	0
1859	4,899	0	508	1892	13,319	180	0



Table 10 (Cont.)

Year	Fiscal Revenues	Domestic Debt	Foreign Debt	Year	Fiscal Revenues	Domestic Debt	Foreign Debt
1893	12,906	11	0	1902	16,549	0	0
1894	12,358	4	0	1903	20,395	864	25,650
1895	12,894	0	6,326	1904	21,780	0	0
1896	14,015	4,157	0	1905	21,956	0	2,180
1897	11,037	70	0	1906	28,725	0	0
1898	10,248	1,905	1,421	1907	35,625	0	2,850
1899	9,692	0	2,908	1908	27,946	0	5,822
1900	11,714	1	2,869	1909	28,419	1,142	3,494
1901	13,499	0	1,416	1910	33,738		11,875

1 "Year" indicates the end of the fiscal year. "Fiscal Revenues" comprises the total income of taxes and duties. "Funds Obtained from Domestic Debt" is derived from the total issues of bonds, not discounted for sale price (more important during the 1800s). "Funds Obtained from Foreign Debt" comprises all funds produced by foreign loans, already discounted for placement.

Sources: For fiscal revenues and funds obtained from domestic and foreign debt, see *Relatório da Fazenda, Brasil* (1827-1919) and Bouças (1950).

*Table 11: Brazil – Total Government Expenses and Debt Service, 1827-1910 (Thousands of Pound Sterling)*

Year	Total Expenses	Domestic Debt	Foreign Debt	Year	Total Expenses	Domestic Debt	Foreign Debt
1827	n.d.	52	402	1861	5,646	432	526
1828	1,476	80	294	1861	5,576	436	552
1829	1,614	96	307	1862	5,816	456	548
1830	1,800	98	432	1863	6,306	484	579
1831	1,923	108	267	1864	6,287	518	2,911
1832	1,566	141	267	1865	9,137	548	616
1833	2,486	210	267	1866	12,596	559	977
1834	2,363	230	267	1867	11,988	631	997
1835	2,406	322	267	1868	14,579	658	1,001
1836	2,333	262	291	1869	10,971	832	1,233
1837	2,415	245	315	1870	11,581	1,196	929
1838	2,271	199	312	1871	9,407	1,634	1,070
1839	2,254	202	316	1872	10,272	1,784	1,088
1840	3,257	244	279	1873	12,832	1,857	1,114
1841	2,925	247	279	1874	13,170	1,929	1,107
1842	3,242	259	279	1875	13,708	1,935	1,357
1843	3,131	253	435	1876	13,856	2,090	1,357
1844	2,774	270	309	1877	14,044	1,854	1,411
1845	2,697	286	309	1878	14,935	2,082	1,446
1846	2,631	308	309	1879	16,635	1,976	1,532
1847	2,858	327	309	1880	13,487	2,307	1,382
1848	2,881	329	309	1881	12,703	2,589	1,426
1849	3,025	327	309	1882	12,512	2,099	1,546
1850	3,207	346	314	1883	13,549	2,150	1,452
1851	3,993	381	461	1884	13,716	2,382	1,481
1852	5,088	408	382	1885	13,314	2,162	1,431
1853	3,653	396	1,410	1886	11,919	2,050	1,504
1854	4,227	402	328	1887	18,646	2,176	1,707
1855	4,442	395	445	1888	14,211	2,411	1,892
1856	4,621	395	396	1889	19,819	2,585	18,639
1857	4,480	382	393	1890	23,417	12,667	1,462
1858	5,512	367	432	1891	18,226	1,981	1,560
1859	5,505	360	963	1892	16,332	1,391	1,629

Table 11 (Cont.)

Year	Total Expenses	Domestic Debt	Foreign Debt	Year	Total Expenses	Domestic Debt	Foreign Debt
1893	14,468	1,513	1,609	1902	14,328	1,436	1,897
1894	17,553	1,128	1,607	1903	18,129	1,748	2,483
1895	14,453	926	1,764	1904	23,270	1,516	3,449
1896	31,141	940	1,985	1905	20,524	2,273	3,667
1897	14,153	1,000	2,082	1906	28,175	2,594	3,255
1898	21,762	864	1,920	1907	34,705	2,269	3,860
1899	8,922	942	1,632	1908	32,364	2,139	3,701
1900	14,362	1,918	2,266	1909	32,739	1,755	4,544
1901	14,175	1,264	1,861	1910	40,088	2,207	8,737

1 "Year" indicates the end of the fiscal year. "Total Expenses" includes all ministries as well as the service of both the domestic and the foreign debt, within the figures for the Finance Ministry. "Debt Service" comprehends interest and amortization expenses. Interest payments on both debts are calculated from the outstanding circulation, according to the interest rate group, following the contractual data. Annual amortization on domestic debt represents the amount amortized since the last period, see Table 8. Annual amortization on the foreign debt is calculated as the difference between the previous and the current debt, see Table 3.

*Sources:* For total government expenses and amortization of internal debt, see *Relatório da Fazenda, Brasil* (1827-1919). For amortization of foreign debt, see Bouças (1950).

Table 12: Brazil – Exchange Rates, 1824-1918 (Pence per Milreis)<sup>1</sup>

1824, Je	49.50	1856,D	27.56	1888,Mr	23.14
1825, Je	50.06	1857,D	26.63	1889,Mr	25.55
1826, Je	50.00	1858,D	25.56	1890,Mr	25.47
1827, Je	41.69	1859,D	25.06	1891,My	19.83
1828, Je	33.16	1861,Mr	25.76	1892,Mr	14.04
1829, Je	27.84	1861,D	25.56	1893,Mr	11.92
1830, Je	23.72	1862,D	26.31	1894,Mr	11.22
1831, Je	23.91	1863,Mr	26.55	1895,Mr	10.06
1832, Ap	29.37	1864,Mr	27.13	1896,Mr	9.72
1833, Je	37.75	1865,Mr	26.31	1897,Mr	8.73
1834, Je	37.81	1866,Mr	24.81	1898,Mr	7.59
1835, Mr	38.50	1867,Mr	23.80	1899,Mr	7.25
1836, Mr	39.05	1868,Mr	21.08	1900,Mr	7.95
1837, Mr	36.22	1869,Mr	17.45	1901,My	10.17
1838, Je	28.81	1870,Mr	19.63	1902,Mr	11.55
1839, Je	29.84	1871,Mr	22.56	1903,Mr	11.98
1840, Je	31.31	1872,Mr	24.27	1904,Mr	12.05
1841, Mr	30.83	1873,Mr	25.27	1905,Mr	13.14
1842, D	28.31	1874,Mr	26.02	1906,Mr	15.97
1843, D	25.81	1875,Mr	26.14	1907,Mr	15.95
1844, Mr	25.66	1876,O	26.23	1908,Mr	15.20
1845, Mr	25.25	1877,Ap	24.82	1909,Mr	15.16
1846, Mr	25.81	1878,O	23.66	1910,Mr	15.43
1847, Mr	27.20	1879,Mr	22.00	1911,D	16.16
1848, Mr	27.25	1880,Mr	21.56	1912,D	16.16
1849, S	25.66	1881,S	22.00	1913,D	16.11
1850, Mr	26.59	1882,Mr	21.53	1914,D	14.80
1851, Mr	28.84	1883,Mr	21.26	1915,D	12.56
1852, Ap	28.56	1884,Mr	21.34	1916,D	12.06
1853, Mr	27.70	1885,Mr	20.16	1917,D	12.83
1854, D	28.00	1886, Ap	18.62	1918,D	13.00
1855, D	27.56	1887, Mr	19.71		

1 These fiscal year averages are calculated as pro rata averages between extremes.

Source: For annual averages, see *Séries Estatísticas, Brasil* (1986,I).

Table 13: Holders of Government Bonds, 1839-1885

% of Total Circulation Covered <sup>b</sup>	Year <sup>a</sup>	Brazil. Nation- als	British Nation- als	Other Nation- als	Var- ious Estab. <sup>a</sup>	Banks	Various Prov- inces	Un- known	Total
100.0	1839	39.6	33.0	8.7	18.8	0.0	0.0	0.0	100.0
93.3	1843	56.0	23.2	3.2	17.6	0.0	0.0	0.0	100.0
93.2	1844	58.8	18.9	6.0	16.3	0.0	0.0	0.0	100.0
98.8	1845	62.5	18.5	5.0	13.9	0.0	0.0	0.0	100.0
99.0	1847	65.4	16.7	4.1	13.8	0.0	0.0	0.0	100.0
98.8	1850	68.4	13.7	4.4	13.6	0.0	0.0	0.0	100.0
97.4	1851	66.3	12.9	7.3	13.5	0.0	0.0	0.0	100.0
100.0	1852	69.6	11.6	2.6	15.0	0.0	1.1	0.0	100.0
100.0	1853	67.3	10.9	2.2	18.5	0.0	1.1	0.0	100.0
100.0	1854	67.9	11.5	4.4	15.1	0.0	1.1	0.0	100.0
100.0	1855	65.1	11.4	4.1	18.3	0.0	1.1	0.0	100.0
100.0	1856	64.4	11.5	3.8	19.2	0.0	1.1	0.0	100.0
100.0	1857	64.3	13.4	2.5	18.7	0.0	1.1	0.0	100.0
100.0	1858	63.2	12.4	3.8	19.5	0.0	1.1	0.0	100.0
100.0	1859	61.2	11.8	5.7	20.2	0.0	1.1	0.0	100.0
100.0	1861	61.6	9.8	3.4	24.2	0.0	1.0	0.0	100.0
100.0	1861	57.2	10.8	2.8	28.3	0.0	1.0	0.0	100.0
100.0	1862	64.7	0.0	11.1	23.2	0.0	1.0	0.0	100.0
100.0	1864	60.6	9.2	1.7	27.6	0.0	0.9	0.0	100.0
100.0	1865	68.5	6.9	1.9	21.8	0.0	0.8	0.0	100.0
100.0	1866	72.6	5.0	2.5	19.1	0.0	0.7	0.0	100.0
100.0	1867	71.3	4.4	2.3	21.3	0.0	0.6	0.0	100.0
100.0	1868	76.7	2.7	1.4	18.8	0.0	0.5	0.0	100.0
100.0	1869	75.1	3.8	3.4	17.4	0.0	0.3	0.0	100.0
100.1 <sup>c</sup>	1870	72.7	3.5	6.5	17.0	0.0	0.3	0.0	100.0
100.2 <sup>d</sup>	1871	64.6	4.9	6.6	14.8	0.0	9.1	0.0	100.0
100.2 <sup>d</sup>	1872	65.2	6.3	8.9	15.3	0.0	4.1	0.0	100.0
99.8	1873	66.6	5.8	8.6	14.9	0.0	4.1	0.0	100.0
100.6 <sup>d</sup>	1874	62.2	5.7	8.1	15.0	0.0	9.0	0.0	100.0
100.7 <sup>d</sup>	1875	62.3	5.7	7.8	5.1	10.1	9.0	0.0	100.0

Table 13 (Cont.)

% of Total Circulation Covered <sup>b</sup>	Year <sup>a</sup>	Brazil. Nation- als	British Nation- als	Other Nation- als	Var- ious Estab. <sup>a</sup>	Banks	Various Prov- inces	Un- known	Total
98.0	1876	62.4	5.6	7.8	5.1	10.0	9.0	0.0	100.0
100.1 <sup>d</sup>	1877	61.8	5.5	6.7	4.9	12.8	8.4	0.0	100.0
101.5 <sup>d</sup>	1878	53.5	1.7	8.5	15.8	10.8	9.8	0.0	100.0
100.8 <sup>d</sup>	1879	52.1	e	7.7	13.9	12.1	8.9	5.2	100.0
101.4 <sup>d</sup>	1880	54.2	e	7.9	14.0	13.6	10.3	0.0	100.0
89.4 <sup>c</sup>	1881	54.0	e	9.3	12.6	12.5	11.6	0.0	100.0
89.4 <sup>c</sup>	1882	53.9	e	9.1	13.0	12.3	11.8	0.0	100.0
89.6 <sup>c</sup>	1883	53.8	e	9.1	12.8	11.8	12.5	0.0	100.0
90.0 <sup>c</sup>	1884	65.7	f	f	18.9	2.5	12.9	0.0	100.0
90.6 <sup>c</sup>	1885	68.5	f	f	16.3	1.6	13.6	0.0	100.0

a "Year" indicates the end of the fiscal year. "Estab.": establishments.

b For total circulation of bonds, see Tables 8 and 9.

c The issue of 1879 is not classified according to holders.

d Dates and/or classification criteria are not compatible.

e Included in "Other Nationals".

f Included in "Brazilian Nationals".

Sources: *Relatório da Fazenda, Brasil* (1836-1886).