What is Worst, Trade Crisis or Revolution? Foreign Creditors, Sovereign Debt and Bailouts in Brazil and Mexico, 1913-14.

Leonardo Weller
l.weller@lse.ac.uk
PhD Candidate - LSE
Visiting Lecturer - UPF
October 2010

How did the world financial system dealt with sovereign debt crisis before the creation of the IMF? This question is relevant today, as defaults have disrupted (and should carry on disrupting) capital markets. Moreover, the interventions carried out by the IMF in the last decades have received rash criticism. Some assert that the fund's umbrella ends up making lenders and borrowers take too much risk, which turns debt crises into rather common events. The IMF is also said to lack the knowhow and the power to make sovereigns commit to the conditions involved in its missions, such the application of orthodox policymaking. The literature on the topic points out that these moral hazard problems may be mitigated with the involvement of private creditors in bailouts, which would spread the cost of such operations and enforce their contracts.[1]

This paper addresses this wide debate by stressing that private banks used to intervene in debt crisis before the First World War. It shows that creditors granted loans to Brazil and Mexico while the two countries were on the edge of defaulting, between 1912 and 1914. This lending not only sheds some light on the debate on the IMF; it also challenges the literature on sovereign debt, which assumes that borrowers that face debt crises hit a credit ceiling at which they will not be able to borrow abroad. Primary evidence shows that the creditors in charge of the operations had lent extensively to the sovereigns, and therefore were forced to intervene in the debt crises. Hence, path dependence and exposure explains the lending.

The case studies are also relevant because Brazil was generously bailed out and Mexico was no. Table 1 shows that the Mexican loans involved smaller resources that were granted at higher risk premium and shorter maturity. In contrast, Rothschilds underwrote Brazilian bonds on quite good conditions, which enabled the government to honour its financial obligations. Mexico, by her turn, defaulted on the debt in early 1914. A question stands out: what explains this discrepancy between the lending offered to both countries?

[1] See Lee and Shin (2008), and Eichengreen and Portes (2000).

Table 1
Mexican and Brazilian Sovereign Loans, 1912-14

Loans	Underwriters	Amount (£ million)	Discount	Maturity (Years)	Risk Premium
MEXICO					
1912 4.5%	Speyers (UK, USA)	1.0	99%	1	2.19%
1913 6%	Paribas (France) Bleichroeder (Germany) Morgan Grenfell (UK) JP Morgan (USA)	6.0	96%	10	3.13%
1913 4.5%	Speyers (UK, USA)	1.0	99%	1	2.14%
BRAZIL					
1913 5%	Rothschilds	11.0	97%	40	1.85%
1914 5%	Rothschilds, Schroeder (UK) Paribas, S. Génerale (France), Deutsch B., Gesellschaft (Germany)	14.5	100%	63	1.67%

Sources: Contractos de empréstimos em libras esterlinas do Governo Federal, BHFB; Colección de Leyes y Disposiciones Relacionadas con la Deuda Exterior de México, BNM.

The qualitative evidence displayed in this paper shows that the causes of the debt crises explain the different outcomes. The Mexican state was in the process of collapsing as the Revolution turned into an open civil war. Unstable politics deteriorated payment capacity and compromised the expectations creditors had in relation to the future of the country as a political unit. On the other hand, the Brazilian crisis was caused by low coffee prices rather than politics, and creditors understood that matters would go back to normal once the coffee market recovered. The credit of the country would improve and the bonds floated during the bailout were expected to be sold at a margin. In the case of Mexico, however, contemporaries knew that peace was out of reach and a bailout would be an unprofitable enterprise.

In order to asses why Brazil and Mexico borrowed in the middle of debt crises on rather different conditions, this paper proposes a simple model designed to explain the rational of market-based bailouts granted by private creditors. The model starts from the widely accepted assumption that sovereigns will default if the benefit of doing so (getting rid of the debt burden) is greater than the costs (lack of future credit).[2] It then follows that, in such situation, creditors will bail out sovereigns if the benefits yielded from it (avoiding a default and profiting from the bailout bonds) compensate the opportunity costs of granting disproportionally cheap credit. Hence, bailouts are likely to happen if creditors are highly exposed and if the causes of the crisis are considered transitory. As

[2] Eaton and Gersovitz (1981).

will be seen, profit expectations were the key factor that explains why Brazil was bailed out and Mexico was not.

This paper is divided in four sections, besides this introduction. Section 2 reviews the literature on sovereign debt and presents the Bailout Model. Section 3 and 4 appraises why, in the middle of debt crises, creditors decided to grant loans to Brazil and Mexico at rather different rates. Section 5 concludes the paper.

2 – Creditworthiness, Defaults and the Rationale of Private Bailouts

Governments that borrow abroad are more powerful vis-à-vis their lenders than any other borrower. No international court can effectively force foreign sovereigns to honour contracts sovereign. Collaterals are irrelevant, since indebted countries are likely to need foreign exchange and lack resources abroad at the levels compatible with their debt.[3] This peculiarity turns sovereign debt into a rather attractive field of research, as such contracts must be enforced by economic incentives rather than law.[4] In general, the literature on the topic assesses the two following questions: how come sovereign debt is honoured, in spite of the lack of legal enforcements? Inversely, why do creditors lend to sovereigns abroad, without any effective legal guarantees?

This paper complements and challenges the mainstream literature on sovereign debt by proposing the following third question: what should creditors do if the sovereign debt they hold (or they have underwritten) is about to be defaulted? The fact that creditors cannot sue defaulters makes this question pertinent. The lack of legal enforcement implies that creditors may be better off by bailing out the sovereigns they have lent to instead of holding defaulted bonds. As a consequence, creditors may find it reasonable to provide sovereigns in poor payment conditions with cheap credit, which is at odds with the mainstream literature. This paper shows that such private bailouts happened in the past, before the appearance of the IMF.

The literature on sovereign debt that assesses the two first questions above followed a seminal piece of work by Eaton and Gersovitz, which proposes that: "borrowers are inherently dishonest in that they will default if it is to their benefit."[5] The decision to stop servicing the debt is then based on the costs and benefit of doing so. The authors characterize the cost of defaulting as the lack of future credit, for creditors are

[3] Bulow and Rogoff (1889).

[4] Gorssman and Van Huyck (1985, p. 2) sums this point up in the following straight forward way: "sovereign debt (…) is above the law."

[5] Eaton, J. and Gersovitz, M. (1981). "Debt with potential repudiation: theoretical and empirical analysis".

likely to impose fiscal blockage on countries that have not honoured their obligations. The benefit of defaulting is given by the debt burden, which "grows with the size of the outstanding debt."[6] The sovereign is about to default if the benefits of doing so equals its costs. At that point, it reaches a "credit ceiling" and cannot borrow abroad.[7]

The bulk of the literature on sovereign debt discusses which factors determine the costs and benefits of defaulting. Bulow and Rogoff highlight the capacity of creditors to launch collective punishment, which implies that governments that borrow from well connected and relatively important lenders face higher costs of defaulting.[8] Political connections with governments in lending countries were also important according to Mitchener and Weidenmier, who show that nineteenth century defaulters were commonly under the threat of military intervention.[9] Einchengreen and Portes stress that financial blockage is likely to compromise foreign trade, which is dependent on credit from abroad. It then follows that governments in relatively open economies are more exposed to the pressure of domestic traders to meet their payments, and therefore face higher costs to default.[10]

As far as the benefit of default is concerned, the most widely used measure for debt burden is the ratio between the debt stock and GDP. The problem, however, is that GDP is a modern concept that was not available in the period this paper studies. Alternatively, Dornbusch evaluates the debt burden through fiscal capacity: the lower the stock of sovereign debt as a ration of tax revenue, the greater the fiscal capacity to service the debt and the lower the likelihood of default.[11] This also appears in Bordo and Roggoff, who also highlight that the adoption of the gold standard has prevented governments from running persistent fiscal deficits and has kept sovereign debts stable vis-à-vis tax revenue.[12] Although the role of the gold standard as a road to creditworthiness has been seriously challenged in recent research by Flandreau and Zumer and by Mauro *et al.*, these pieces of work confirm the significant correlation between creditworthiness and sound fiscal fundamentals.[13] Finally, Fishlow points out that the benefits of defaulting are kept low when sovereigns borrow in order to invest in

[6] Eaton and Gersovitz (1981, p. 290).
[7] Ibid.
[8] Bulow and Rogoff (1989).
[9] Mitchener and Weidenmier (2005).
[10] Einchengreen and Portes (1989).
[11] Dornbusch (1984).
[12] Bordo and Roggoff (1996).
[13] Flandreau and Zumer (2004), Mauro *et al.* (2006).

infrastructure that delivers economic growth, which is not the case when loans finance fiscal deficits and warfare.[14]

Several scholars have also assessed the debt burden based on the external side of the economy. Eichengreen points out that the benefit of defaulting is low when exports are high in proportion to the stock of sovereign debt.[15] Not surprisingly, Tomz and White present exports per capita as a statistically significant variable when assessing the determinants of sovereign risk before 1914.[16] World liquidity also influence the likelihood of defaults. When it is high, sovereigns will be able to refinance their debt on better terms, which decreases the debt burden and the benefit of defaulting. High liquidity also increases the opportunity cost of not servicing the debt, as defaulters will be relatively worse-off under a financial blockage if creditworthy sovereigns are able to borrow cheaply. For this reason, Romaz *et al.* found that liquidity levels have been inversely correlated with the risk premium at which sovereigns borrowed before 1914.[17]

Besides macroeconomic fundamentals, the literature stresses the role played by politics in creditworthiness. Ozler and Tabellini point out that politically unstable and polarized countries tend to be governed by short-lived (and therefore short-sighted) administrations.[18] The cost of defaulting falls to zero when a weak government is expected to be deposed in a coup, which implies that the debt will not be serviced at all.[19] That is the reason why revolutions have almost always involved defaults. This is a point highlighted by Ferguson, who asserts that political instability deteriorates fiscal fundamentals and increases the benefit of defaulting.[20]

Summing up, the mainstream literature on sovereign debt presents a list of factors that keep countries creditworthy: sound fiscal and orthodox policies, productive use of borrowing resources, booming export, high world liquidity and stable politics. This paper shows that Brazil and Mexico were not supposed to be creditworthy between 1912 and 1914, even though they were able to borrow. In order to appraise the odd loans granted to these countries, this paper proposes a model designed to explain the rationale of sovereign bailout launched by private institutions. The model's starting point is that creditors will launch bailouts when the benefit of doing so is greater than its cost. A

[14] Fishlow (1995).
[15] Eichengreen (1991).
[16] Tomz and White (2007).
[17] Romaz *et al.* (2007).
[18] Ozler and Tabellini (1991).
[19] This hypothesis is supported by the research by Taylor (2003) on sovereign debt and creditworthiness in nineteenth century Latin American.
[20] Ferguson (2006).

bailout is defined as loans granted on disproportionably good conditions – more precisely, at a risk premium below the rate applied to old bonds issued by the rescued sovereign. Therefore, the cost of bailing out is the opportunity cost that creditors face when holding bonds that yield relatively low return.

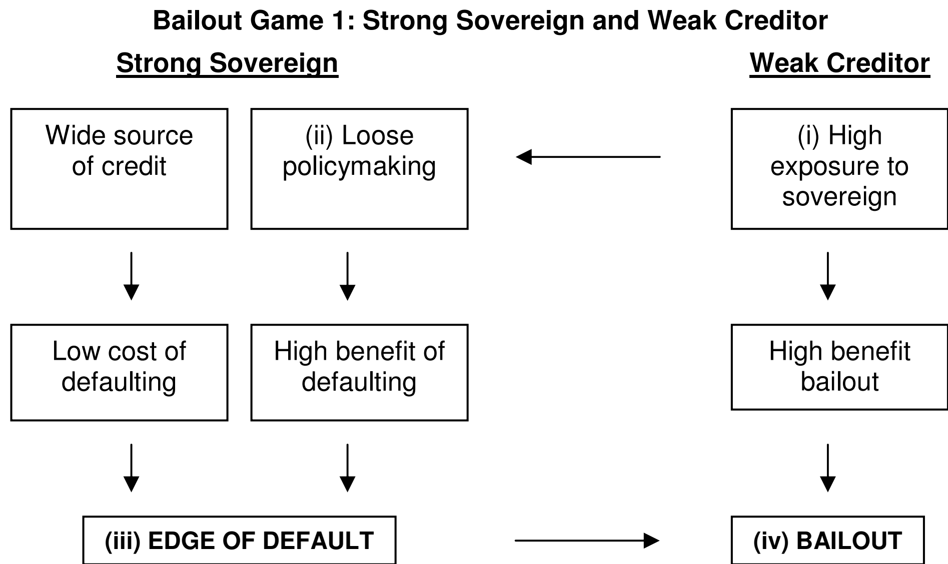
The benefit of bailing out is determined by path dependence and profit expectations. Creditors bailout because they are lock in to the sovereign and need to protect the bonds they hold or have underwritten. Moreover, creditors may find a bailout profitable in the longer term. When a country reaches the credit ceiling, creditors infer whether the default is likely only in the short run. That is the case when borrowers face cyclical crises, such as depressed export prices or low foreign liquidity. Bailouts are thus rational, as they help governments to face external shocks without defaulting. Once the effects of the shock are over, the bailout bonds will be sold at a margin and the credit will profit from the operation. A different case happens when debt crises are caused by political instability. Sovereigns troubled by revolutions are not likely to honour financial obligations for years, and therefore should not be expected to be bailed out. This paper shows that these two cases apply to Brazil and Mexico loans, respectively, which explains the discrepant conditions at which they were granted.

Before assessing the historical cases, however, this section summarized the Bailout Model as follows: (1) the sovereign decides whether to default based on the cost and benefit of doing so, such as proposed in the literature; (2) if sovereigns hit the credit ceiling, the creditor decides to bailout depending on the opportunity costs and benefits of doing so, the latter of which are given by the exposure to the troubled borrower and by profit expectations. Strategic behaviour is a key feature in the model. The sovereign knows whether it is relatively important to the creditor, and therefore may count on bailouts if defaults become likely. This moral hazard problem creates the incentive for loose macroeconomic policies, which increases debt burden and, if carried on indefinitely, pushes the sovereign to its credit ceiling. On the other hand, the creditor may force sovereigns to grant them with inside information and policy ownership, which means that the negotiations around bailout bonds are crucial to define the likelihood of the operation.

In one extreme case, presented in Game 1, the creditor has only underwritten bonds of a certain sovereign that, for some reason, will always be able to borrow abroad from other sources. The sovereign understands that the creditor will grant a bailout if payment capacity deteriorates too much, which creates incentives for loose policymaking. This moral hazard problem is represented by the arrow that links boxes (i) to (ii), which

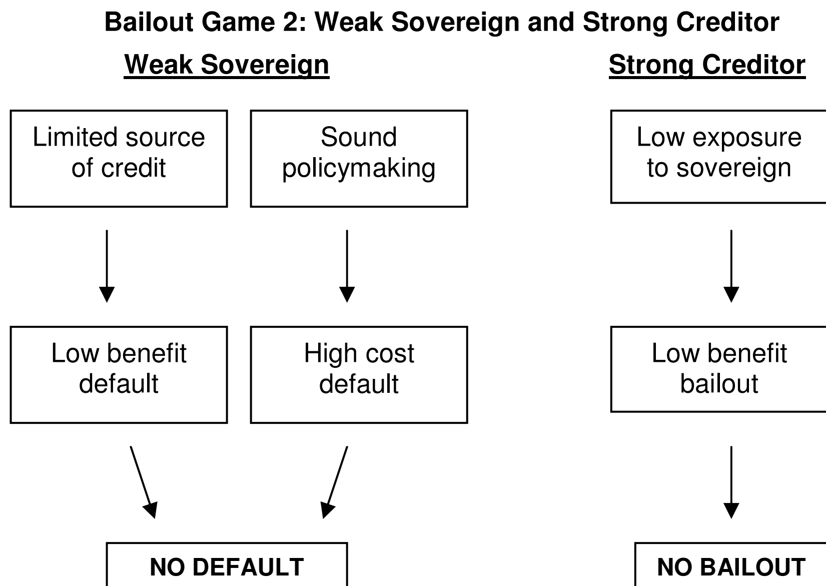
will end up pushing the sovereign to the edge of defaulting. The creditor responds to the threat of default with a bailout, which is expressed by the arrow between boxes (ii) and (iv). In spite of the moral hazard problem, the operation produces a social gain, as both creditor and the sovereign avoid the costs related to the eminent default.

Bailout Game 1: Strong Sovereign and Weak Creditor



Another extreme although rather monotonous case is shown in Game 2. The sovereign is unimportant for the creditor, but the latter is the only source of credit the former accounts for. The creditor will never bail out the sovereign, which faces too high a cost to default.

Bailout Game 2: Weak Sovereign and Strong Creditor



The next sections apply the Bailout Model to the Brazilian and Mexican cases. It will become clear that the model is capable to explain the outcome of both cases, even though they were remarkably different from each other. While the Brazilian 1914 loan was a clear bailout, quite similar to Game 1, the Mexican 1913 loan was a selective bailout that lays between Games 1 and 2.

2 – Trade Crisis, Rothschilds and the 1914 Brazilian Loan

Brazil went through deep political changes in the turn of the twentieth century. A republican coup deposed the monarchy, in 1889, and the country faced civil wars and public unrest in most of the 1890s. A new regime was consolidated in the 1900s, and politics became stable again under the hegemony of the oligarchy from São Paulo and Minas Gerais, the two most important states of the federation.[21] Nevertheless, some key economic features of the country remained unchanged. Firstly, Rothschilds was still *the* Brazilian underwriter. The bank had been appointed the European financial agent of the country in 1856, after which it held a virtual monopoly on the underwriting of the sovereign debt.[22] Even though the monopoly was broken in 1908, when bonds were issued in Paris, the interdependence between the government and the bank remained very strong in the following years, which explains why the latter bailed out the former in 1914.

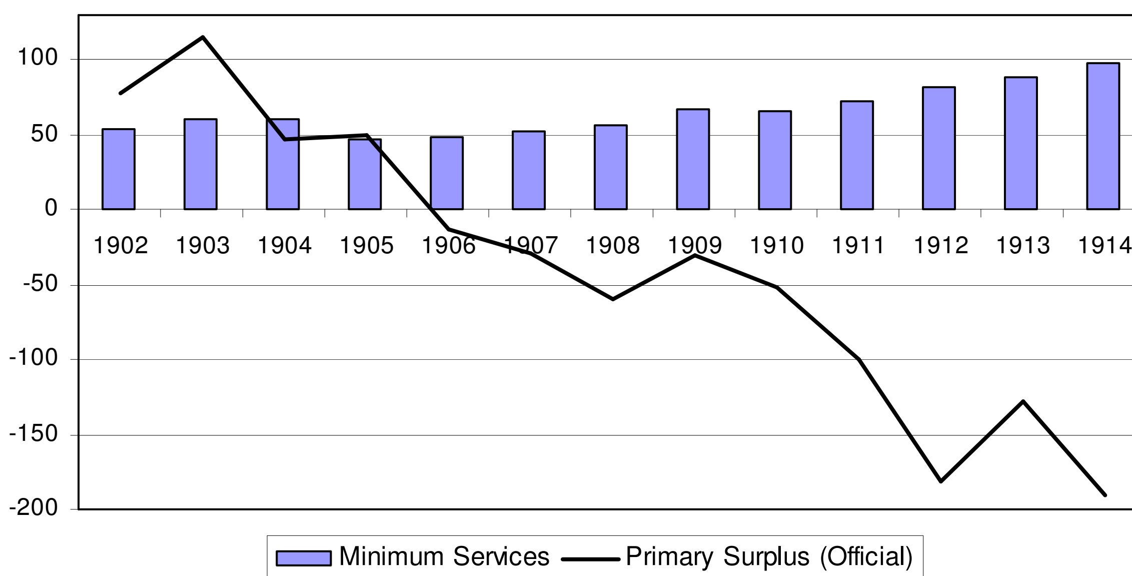
Besides the special relations with Rothschilds, the Brazilian economy continued depended on coffee, whose production responded to 57% of national exports between 1910 and 1914. The coffee market went through a boom until 1912, when it was hit by a severe overproduction crisis. Prices slumped 42% and total exports fell 37%, from 1913 to 1914. The government responded to the crisis with tight monetary policy in order to keep the currency pegged to gold.[23] However, underperforming trade depressed custom collections whilst tight monetary policy compromised the revenue from domestic taxes. The exchange rate finally depreciated in early 1914, which increased the size of the sovereign debt vis-à-vis tax revenue.

Chart 1 shows the fiscal effects of the crisis. The columns stands for the resources Brazil had to send abroad, measured in domestic currency, in order to meet the minimum obligations due on the sovereign debt. The exchange depreciation explains the increase in 1914, for the government needed more *mil-réis* to cover services payable in British

[21] Fausto (2002, pp. 256-272).
[22] Fergunson (2000) and Bouças (1955).
[23] *Estatísticas Históricas do Brasil* (1990, pp. 347-350, 535-537).

pounds. The solid curve is the primary fiscal deficit/surplus, and therefore the distance between it and the top of the columns is equivalent to the resources the government lacked to finance both the budget and the sovereign debt. This distance becomes positive in 1906, after which government had to borrow in order not to default. The need of credit reaches unprecedented levels with the early 1910s trade crisis, as primary deficits becomes remarkably larger and the minimum services on the sovereign debt raised.

Chart 1
Brazil: Primary Surplus and Services on the Sovereign Debt, 1907-1914
(million mil-réis)



Source: Calculated from Balanço da Receita e Despesa da República, and Annual Report of Corporation of Foreign Bondholders.

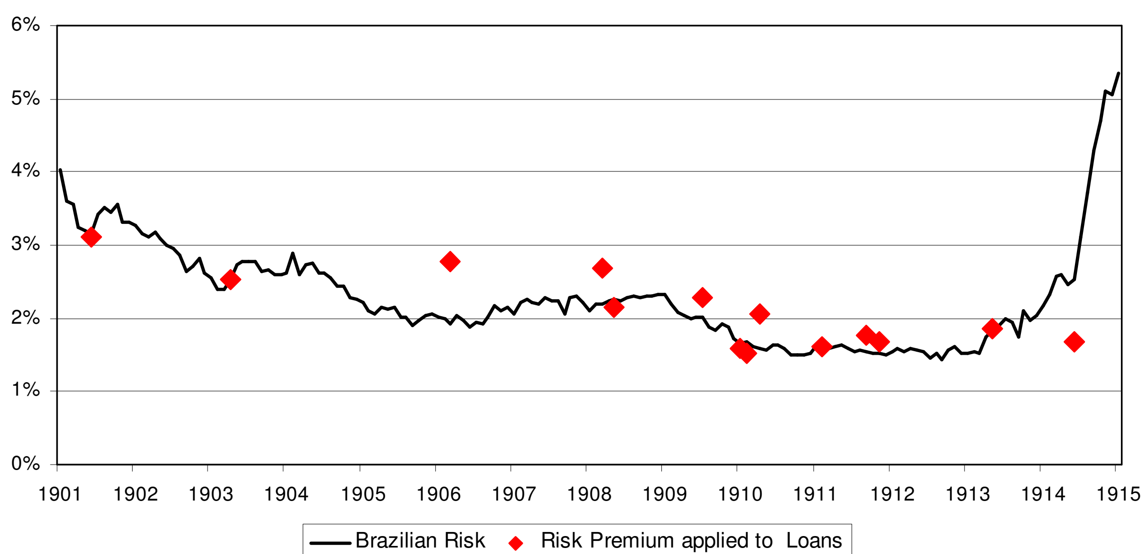
Contemporaries understood the implications of the trade crisis. For instance, *The Economist* published that "any serious decline in, for instance, the value of coffee would undoubtedly place the Government" as "the present state of affairs may threaten the stability of exchange."[24] Once coffee prices collapsed, the journal published a report entitled "Pessimism in Brazil," in which it asserted that "the low value of rubber (and) the huge drop in the price of coffee" caused an "extraordinary tightness of money."[25] The reader was left with the impression that, as long trade did not improve vigorously, illiquidity would be unbearable and the country would have to leave the gold standard. Once the exchange rate depreciated, however, the government would face growing debt burden and higher benefits of defaulting. It is not a surprise, therefore, that the Brazilian

[24] *The Economist*, 14th September, 1912, p. 845.
[25] *The Economist*, vol. 77, issue 3646 (12th July, 1913), p. 10.

risk stopped its trajectory of recovery that followed the 1907 world crisis and started to boost in early 1913.

The effect of the debt crisis in the country's credit is shown in Chart 2. The graph reports the weighted average of the risk premium applied to every Brazilian loan floating on the London Stock Exchange. As payment capacity eroded in 1913, the price of bonds fell and the Brazilian risk boomed. The dots in the graph show the risk premium at which new bonds were issued. The comparison between the solid line and the dots tells if the new bonds paid a higher of lower return than the old debt. It is clear from Chart 4 that the 1914 loans stands as an outlier, for it was issued at a risk premium way below the Brazilian risk. The rest of section assesses why Rothschilds decided to grant such generous bailout.

Chart 2
Brazilian Risk and Risk Premium Applied to Mexican Loans, 1904-1914



Sources: Calculated from Investor's Monthly Manual; and Contractos dos Empréstitos em Libas Esterlinas do Governo Federa, BHMF.[26]

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[26] The methodology applied to calculate the Brazilian risk follows the formula:

$$\rho_{c,t} = \sum_{i=1}^{n} \left(\frac{Y_{i,t} K_{i,t}}{\sum_{i=1}^{n} K_{i,t}} \right) - B_t$$

where: $\rho \equiv$ spread in period t;

$Y_i \equiv$ yield to maturity of the chosen representative bond i in period t;

$B_i \equiv$ yield of British consoles in period t.

Rothschilds understood that the trade crisis of 1913 was bad news for Brazil, as she depended on foreign finance primary deficit. The house realized that intensive borrowing was not sustainable as low coffee and rubber prices compromised pressured the exchange rate, which had been pegged to gold in 1906. This appears in the internal correspondence of that house, in which the bankers say that "the general situation of Brazilian finance depends greatly on the price of Coffee and Rubber" and therefore "the low prices of Coffee and Rubber have certainly disturbed the money market out there (in Brazil) and there has been a great scarcity of Bills."[27] As highlighted in the previous section, Rothschilds sent a representative to Brazil in late 1912, who "had several interviews with the Finance Minister and impressed upon him the necessity of avoiding constant small guarantees issues for the various Railways and other public works."[28] It was time for the Fonseca administration to retrench expenditure in railways and public works. In face of those dire circumstances and pressure by Rothschilds, "the Finance Minister gave (…) the assurance that he is doing his best to prevent these large deficits by a policy of retrenchment" and "does not interned to give any more guarantees in connection with Railway or any other commercial or industrial enterprise."[29]

The government did attempt to improve fiscal positions: between 1912 and 1914 expenditure decreased 13%, according to the official data, and 3% if the more accurate re-constructed data is considered.[30] The problem, however, was that tax revenue decreased from 28% to 29%, according to both sources. The need of foreign credit made Rothschilds retain £3.2 million Brazilian treasury notes and underwrite a rather large Brazilian loan, in 1913, in order to redeem those bills. The issuing of these notes is odd by itself, as these securities used to be denominated in domestic currency. The rest of the resources borrowed in that year was used to cover expenditures on public works and

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K_t^i ≡ market capitalization of bond *i* in period *t*.

The series for yield to maturity has been calculated from the price of bonds quoted in the last day of each month, as published in *The Investor's Monthly Manual.* This methodology consists in an original contribution. Previous pieces of work, such as Tomz and White (2007) and Flandreau and Zumer (2004), calculate country's risk from "representative bonds", which disregards peculiarities of different securities. Mauro *et. al* (2006) have improved such methodology by weighting bonds according to their market capitalization. However, these authors calculate spreads from coupon yield rather than yield to maturity, and therefore disregard differences in maturity.

[27] *RHA*, Alfred Rothschild to Gustave Rothschild, 23rd and 29th September, 1913, XI/130A/6A.

[28] *RHA*, Alfred Rothschild to Gustave Rothschild, 22nd October 1912 XI/130A/6A.

[29] *RHA*, Alfred Rothschild to Gustave Rothschild, 22nd October 1912 XI/130A/6A; Rothschilds to Brazilian Minister Sales, 21st October, 1912, XI/142.

[30] The official contemporary data is from Balanço das Receitas e Despesas da República, and Estatísticas Históricas do Brasil (1990) provides the reconstructed series.

railways construction that were already under way.[31] Even though Brazil was a debt crisis, negotiations around the 1913 loan show that the government still had a larger say when defining borrowing conditions. This appears in a letter from the finance minister Francisco Sales (1910-1913), which Alfred Rothschild described as "the most pathetic (and) in fact quite sentimental." It is not clear whether the banker was sarcastic or touched when referring to the corresponded with Sales. In any case, the minister established a lower bound for the discount rate at 97%, which ended up being the final issuing price.

Rothschilds asserted that the issue of the 1913 loan was a "Herculean task" that "no House except ourselves could have underwritten and accomplished."[32] The operation shows that even such high class house had limits; to use to word of the banker: "the public subscription is not at all up to expectation, the loan being quoted at a discount which prevents the public from subscribing, the amount being considered too large and the price high."[33] From the total £11 million bonds issued in the operation, Rothschilds held £366,880, which corresponded to 3.3% of all the investments of the house in shares and accounts.[34] In similar sense, *The Economist* referred to the "unfavourable reception given in London to the new Brazilian loan."[35] These pieces of evidence show that the 1913 loan had similarities with a bailout. Even though it was issued at the same level of the Brazilian sovereign risk, the new securities were not welcomed on the market. The operation was performed right when the Brazil credit was starting to boom an enabled Brazil to honour its financial obligations during a payment crisis, and momentarily avoided a default. However, the conditions of the lending were not as favourable as of the 1914 loan, and the risk premium applied to that loan lay very close to the Brazilian risk, as shown in Chart 2.

Payment capacity deteriorated even more in 1914. The lack of resources was so severe that, in an effort to provide fresh revenue to its client, Rothschilds arranged the sale of a Brazilian battleship to the Greek Navy, in late 1913.[36] However, the bank was not entirely pessimistic about the country, as it understood that the crisis had been trigged by external factors – low export prices - whose eventual reversion would end up

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[31] *BHF*, *Contractos de empréstimos em libras esterlinas do Governo Federal.*
[32] *RHA*, Alfred Rothschils to Gustave Rothschilds, 28th April 1913, XI/130A/6A.
[33] *RHA*, Rothschilds to Minister Sales, 6th May, 1913, XI/65/13.
[34] RHA, Ledged Balances, 000/77/5.
[35] *The Economist*, vol. 76, issue 3637 (10th May, 1913), pp. 10, 11.
[36] *RHA*, Rothschilds to Minister Corrêa, 27th November, 1913, XI/65/13.

improving Brazilian credit. To use the words of the bankers, “we may look forward to a gradual improvement in the financial and commercial market and if our hopes are realised the demand for the produce of Brazil will no doubt increase.”[37] The sanguine position of the bank vis-à-vis country appears neatly in a letter written by Alfred Rothschilds to their French relatives, in which he says that:

> “it is highly necessary for the Brazilian Government to be wise, economical and cautious. I am certain that they realize this themselves, that they will endeavour considerably to reduce their expenditure and they will not raise any fresh loans if they can. (…) you must not blame the Government too much.”[38]

The urgent need for a rescuing loan was already presented to Rothschilds by the finance minister Rivadavia Corrêa (1913-1914) in early 1914. Corrêa declared that the government counted with “no funds to meet (the) £5 Millions in respect of interest on the foreign loans” and could not “see where they are to come from.”[39] Fortunately for the government, the exposure of Rothschilds to her troubled client provided it with the incentives a grant the bailout. From all the bonds underwritten by the house and currently floating on the London Stock Exchange, in April 1914, 36% were Brazilian. The only country that could ruin the reputation of the bank as an underwriter of sovereign debt in a greater extent was Russia, the larger borrower in the world, whose share accounted for 53%. The other country whose bonds had been underwritten by Rothschilds was Chile, whose share 11%, and therefore significantly lower than the Brazilian and Russian.[40]

Primary sources show that the exposure of Rothschilds to Brazil was mainly related to reputation rather than finance. The stock of Brazilian securities held by it totalled £911 thousand, which accounted for 5.01% if its total assets, as shown in Chart 5.9. Even though that portfolio was far from small, it could not have *per se* provided the incentives that explain the bailout. The house could have faced a 5% loss in its balance sheets without any threat of bankruptcy. The danger Rothschilds faced was that a rather large amount of the bonds it had underwritten could go on default. As has been explained in Chapter 1, the status of the bank as a premier underwriter had been built during the

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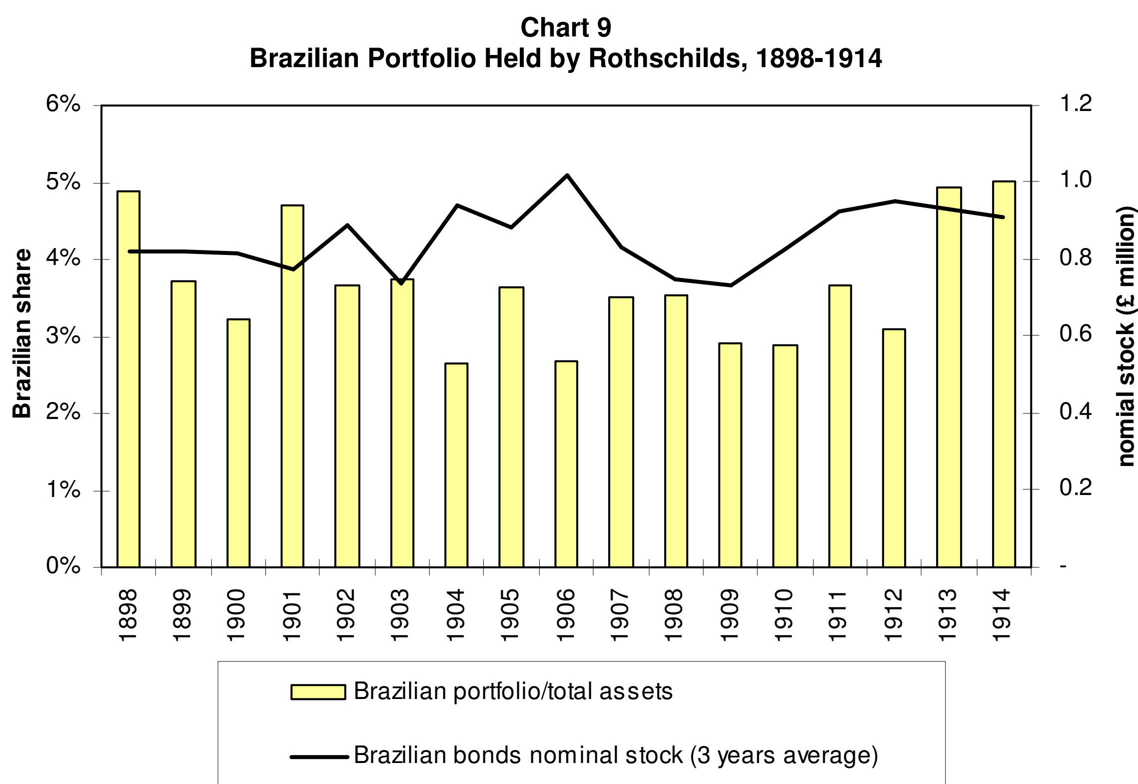
[37] *RHA*, Rothschilds to Minister Corrêa 28th July, 1913, XI/65/13

[38] *RHA*, Alfred Rothschils to Gustave Rothschilds, 19th August 1913, XI/130A/6A

[39] *RHA*, Rothschilds to Minister Corrêa, 17th April, 1914, XI/65/13.

[40] Calculated from *The Investor’s Monthly Manual*, n. 4, vol. 44 (May 1914), pp. 186-189.

nineteenth century based on the fact that its clients honoured their debt, and therefore such high class status was at stake.



Source: Calculated from RHA, Ledged Balances, 000/77/4-5.

Chart 5.9 does not explain the 1914 loan, but it contains relevant information on how Rothschilds managed its Brazilian portfolio. The bank Rothschilds sold off Brazilian bonds from 1906 and 1909, when the country borrowed in France and became less dependent on the bank. However, the good prognostic of Brazilian credit and the 1910 debt conversion increased in the Brazilian portfolio from then until 1912, when the bank started to sell those bonds again. One may assume that Rothschilds tried to reduce its exposure to Brazil as the coffee prices started to decline and a payment crisis loomed. The data shows clearly, however, that the Brazilian portfolio would have been reduced to a much greater extent had the bank not been forced to hold the bonds issued in 1913 - £366,880, which corresponded to 37% of the nominal stock of Brazilian bonds in the Rothschilds' assets.[41] Moreover, the bank paid out a significant share of its liabilities between 1912 and 1914, which explains the increase in the Brazilian share in the period.

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[41] *RHA,* Ledged Balances, 000/77/5.

Path dependence explains why Brazil was bailed out, in 1914, with a £14.5 million loan that was issued at one third below the Brazilian risk. Profit expectations also provided incentives for the operation, as Rothschilds anticipated that the Brazilian payment capacity would improve once the foreign crisis was over. Such optimism proved to be wrong, as the First World War did happen, coffee prices only recovered in 1919, and the Brazilian risk remained well above 1.85% - the risk premium at which the 1914 loan was issued – during the following half century.[42] By early 1914, however, contemporaries doubted that the European powers would fight a major long war. As one would assume that Brazilian trade results would remain depressed in the long run only if world peace was disturbed by a conflict between major European powers, Rothschilds was *ex-ante* correct in assuming that the loan would end up being profitable.[43]

Even though the exposition to Brazil provided the government with bargain power when negotiating with Rothschilds, the correspondence exchanged in the months that preceded the Second Funding Loan shows that the bank tried to postpone the bailout as much as possible. By late 1913, the bankers opined, in an internal letter, that "Brazilian Operation (was) quite out of the question."[44] In parallel, Rothschilds stated to minister Corrêa that "the English market is not well disposed for Brazilian Securities at the present moment."[45] By February 1914, the house was acting in a significantly different way, as demonstrated in the correspondence to the Rothschilds in Paris, in which the London house states that it had "approached (…) friends and others who act with us (…) to find out what amount and on what conditions they would be prepared to purchase Brazilian Treasury Bills."[46] In parallel, Rothschilds was still trying to buy time when dealing with the Brazilian government, to which the bank communicated that it had "met with a decided negative (…) at the present moment there is considerable and natural anxiety about the wants of the Brazilian Treasury and also about the steps that would be taken in the future to produce an equilibrium and guarantee the maintenance of it."[47] The strategy of pushing the bailout forward appears clearly in the following letter to minister Corrêa, in which the bankers say that:

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[42] *Estatísticas Históricas do Brasil* (1990, p. 571), *The Investor's Monthly Manual*, various issues.
[43] Fergunson (2006, p. 72).
[44] *RHA*, Alfred Rothschild to Gustave Rothschild, 19th December 1913, XI/130A/6A.
[45] *RHA*, Alfred Rothschild to Minister Corrêa, 23rd December, 1913, XI/65/13.
[46] *RHA*, Alfred Rothschild to Minister Corrêa, 17th February, 1914, XI/65/13.
[47] Ibid.

> "(…) Your Excellency mentions the large item of £5 Millions in respect of interest on the foreign loans and Your Excellency says at the same time that you have no funds to meet the same and other claims besides, nor do you see where they are to come from. Under these circumstances it is impossible for us to formulate any plan until we hear from you what steps you intend taking on your side in order to meet with these deficiencies because until we know that they are ample and efficacious it will be impossible for us to try and obtain money from the public until we can prove to them that you quite prepared to give fresh and ample new guarantees."[48]

Why was Rothschilds trying to postpone the 1914 bailout? The correspondence quoted above shows that the bank wanted to pressure Brazil to reduce fiscal expenditure in a greater extent, and it seems reasonable that delaying the bailout may have forced the government to do so. Nonetheless, this contradicts the internal correspondence from mid 1913 quoted above, in which the bankers spell out that one "must not blame the Government too much."[49] The reasons that moved Rothschilds are more likely to appear in their internal correspondence than in the letters sent to the Brazilian finance minister, and therefore the improvement in fiscal positions does not appear to explain why the bank was trying to buy time.

Another possible explanation is the asymmetric information Rothschilds was exposed to. As the bank did not any longer hold a monopoly on Brazilian foreign finance, it did not have access to first hand information on the whole of the sovereign debt. In additions, Rothschilds felt that "the present Finance Minister does not see exactly eye to eye with us," and therefore their assessment on the payment capacity of the Brazilian gov was limited to the official data that the general public had access to, which was far from accurate.[50] In face of such information problem, Rothschilds sent a mission to Brazil, as stated in he previous sections, in order to acquire "the absolute amount required for internal and external debts the total amounts of claims which the Delegate of the Treasury is yearly making on us in addition to other large claims made both here and on the Continent."[51] The house also wanted to know "the exact state of the Finance of the Government, the requirements of the service of the public debt and the acknowledged claims of Europeans creditors."[52] Without such pieces of information, Rothschilds found it "impossible (…) to formulate a plan which would not only meet the exigencies of the

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[48] *RHA*, Alfred Rothschild to Minister Corrêa, 17th April, 1914, XI/65/13.
[49] *RHA*, Alfred Rothschils to Gustave Rothschilds, 19th August 1913, XI/130A/6A
[50] *RHA*, Alfred Rothschild to Minister Corrêa, 24th March, 1914, XI/65/13.
[51] *RHA*, Alfred Rothschild to Minister Corrêa, 23rd February, 1914, XI/65/13.
[52] *RHA*, Alfred Rothschild to Minister Corrêa, 17th March, 1914, XI/65/13.

moment but would likewise place Brazil credit again on a firm and solid basis."[53] It seems natural to suppose that Rothschilds was waiting to gain more complete and trustworthy set of information before granting the bailout.

One last factor may explain why Rothschilds was reluctant to grant Brazil with a rescuing loan: it was attempting to involve as many financial houses as possible in the operation. Besides improving the likelihood of a successful bailout, the constitution of a wide syndicate worked towards the distribution of the huge opportunity cost involved in the operation, which therefore decreased the burden held by the Rothschilds in it. This appears in the internal correspondence of the house, in which the bankers state that "the only thing that is absolutely necessary at the present moment (…) is that there is absolutely no rivalry between London and Paris and that we are both acting together to regard the interest of Brazil and put the financial position on a really sound basis."[54] The coordination was successful, for virtually every house that was exposed to Brazilian debt at a considerable level joined in the 1914 syndicate. Société Général and Paribas underwrote a total of £8 million Brazilian bonds, in 1908 and 1910, whilst Disconto Gesellschaft and Henry Schroeder had supported the coffee valorisation scheme.[55]

If Rothschilds was buying time to launch the bailout, the Brazilian government successfully pressured the bank to issue the rescuing loan on good terms. In late April, 1914, the bank proposed to grant a "£20 millions loan at 5.5% interest and discount at around 94%."[56] In order to launch the operation, though, the creditors imposed several conditions that resemble those requested when both parties negotiated the First Funding Loan. In the words of the bankers, Brazil was to agree to "pledge the Custom House receipts for the service of Interest and sinking Fund on (A) the existing Brazilian Government Loans (B) a new loan to be issued (…)." In addition, "the Customs receipts shall not be further pledged to any other parties for any further operations either Treasury Bills or long dated Loans." Finally, it was considered an "essential condition that the Government should lease at once the Central Railway." [57] In late 1890s, Rothschilds considered that the railway was a "white Elephant to the Government (that) in few years with decent administration it would bring in a very large sum of money."[58]

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[53] *RHA*, Alfred Rothschild to Minister Corrêa, 23rd February, 1914, XI/65/13.
[54] *RHA*, London to Paris Rothschils, 25th March, 1914, XI/130A/6A.
[55] See Table 1.
[56] *RHA*, Rothschilds to Minister Corrêa, 27th April, 1914, XI/65/13.
[57] Ibiden.
[58] *RHA*, London to Paris Rothschilds, 24th March 1914, XI/130A/6A.

In July, the government responded that it was "unable to accept the terms" for political reasons.[59] In face of this negative, the bankers expressed "regret (for) the long procrastinations which have taken place" and declared that, "owing to the state of European politics the negotiations have to be suspended for the present". Nevertheless, Rothschild commitment to Brazil seem to have remained unshaken, for, after all the distress, the bankers wrote, latter that month, that "it is however needless to say that should the crisis pass over which we most ardently hope will be the case, the negotiations then would be resumed at once."[60]

The "crisis" Rothschild referred to was the First World War. By October it was clear that the conflict would cause a fall in world liquidity flows, even though the literature says that contemporaries still thought that it would finish relatively soon.[61] Under such circumstances, the bank proposed what became the Second Funding Loan, an alternative way to prevent Brazil from unilaterally defaulting due to lack of funds caused by the conjunction of external shocks – the fall in coffee prices and liquidity. The contract arranged the issuing of £15 millions bonds and established that the new debt was to be used for the following three years as payment of the interests on the old debt, with the only exception of the 1903 loan. Similarly to what had been agreed in the First Funding Loan, therefore, the government did not need to service most of its debt with cash until July 1917. The total issue summed up £14.5 millions and the amortization of all sovereign bonds, excluding the 1914 funding loan itself, was suspended from August 1914 on until July 1927.[62]

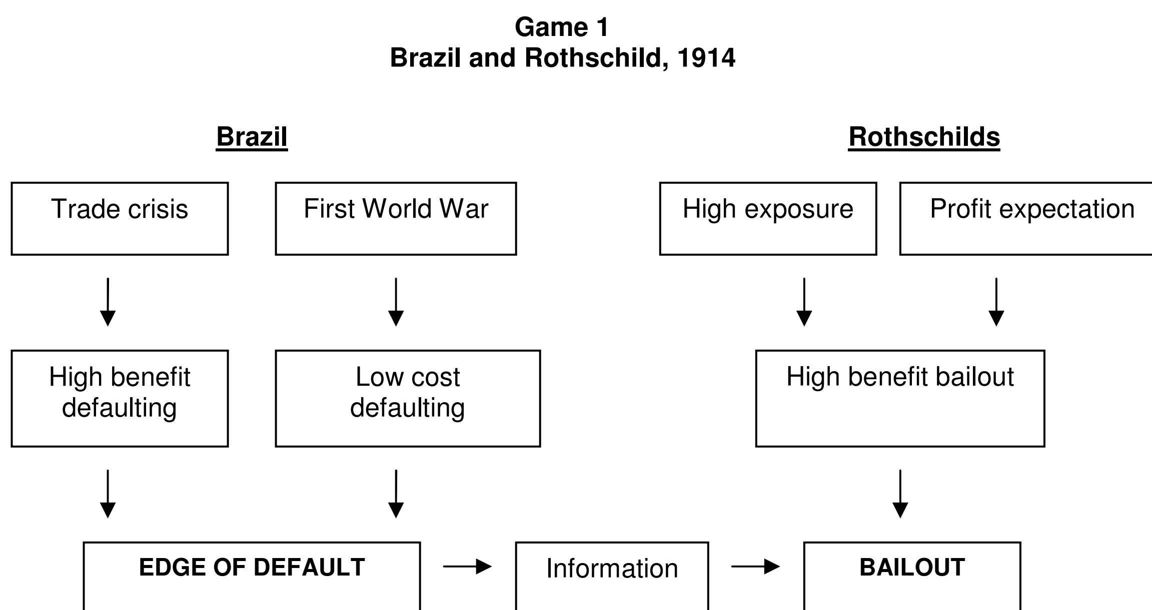
It is clear that the exposure to Brazil was determinant in the 1914 Funding Loan. On the other hand, it seems reasonable from the evidence displayed in this from the historiography on the world finance of the period that Rothschilds had reasons to expect the improvement of Brazilian credit, from which follows that profit expectations also constituted in an incentive for the granting of the bailout. Even though the First World War had already started when the loan contract was signed, in October 1914, contemporaries did not expect that the war would be as long and intense as it turned out to be. As Brazilian payment crisis was caused by external crisis, it was rational to support the governemt so it could go through the world crisis without defaulting on the sovereign

[59] *RHA*, Minister Corrêa to Rothschilds, 7th July, 1914, X/111/29.
[60] Ibid, 27/07/1914.
[61] Fergunson (2006, pp. 98-101).
[62] *BHF,* "Contractos de empréstimos em libras esterlinas do Governo Federal, 1883-1927"; and Bouças, 1955, p. 254.

debt, for payment capacity was expected to improve once exports resumed growing. The primary material shown in this section supports the following surprising claim: the First World War ended up fostering the Second Funding Loan rather than compromising it.

The incentives that moved the 1914 syndicate to bailout Brazil with the Second Funding Loan are synthesized in the Game 1. The fall in coffee prices deteriorated payment capacity as it pressured the exchange rate and depressed fiscal revenue, which worsened the debt burden and increased the benefits the government would have from a default. The First World War worsened the debt crisis as it halted world liquidity, which lowered the opportunity cost of defaulting and pressured the lenders to intervene with a bailout.

Game 1
Brazil and Rothschild, 1914



The 1914 syndicate, by its turn, was highly exposed to Brazil, which constituted in the main incentive to grant the bailout. Evidence shows that Rothschilds also expected that the Brazilian risk would decrease once trade results improved, which means that the operation was expected to be profitable in the long run. Finally, as Brazil hit the credit ceiling it was forced to cooperate with the syndicate, which included the transfer of accurate and complete information on fiscal positions. Once the asymmetry of information was mitigated, the 1914 syndicate agreed to bailout the sovereign. The cyclical causes of the crisis created profit expectations that, together with the reputation cost Rothschilds would have faced in case the debt was defaulted, conditioned the bailout. The next section shows that politics and profit expectations are key elements in private bailouts; differently from Brazil, Mexico faced severe political uncertainties that prevented her banks from expecting to profit from a bailout.

4 – Revolution, Railways and the 1912-13 Mexican Loans

Mexico was a lawless country during most of the nineteenth century. The government stood as an example of a serial defaulter, as the debt issued in London in the 1820s was not honoured until the 1880s. Politics only became stable during the long period in which Porfírio Díaz dominated national politics, from 1876 to 1910. A new authoritarian state was virtually built from scratch and the economy grew consistently for the first time since Independence.[63] Besides peace and progress, Mexico became creditworthy during the Porfirato. The old sovereign debt was redeemed and the country returned to the world financial market in 1888. The application of sound fiscal policy and the adherence to the gold standard enabled the government to honour all financial obligations and improve its debt record abroad. As a consequence, the sovereign risk was as low as 1.6% in 1910, when Díaz was overthrown, against 36.7% in 1888.[64]

The Porfiriato was deposed by a coup headed by Madero, a liberal who demanded free elections and democratic reforms. The Revolution received the support from popular leaders such as Villa, Zapata and Orozco, who stood for social changes such as agrarian reform. Madero was in office from 1910 to 1912, during which private companies were respected, economic activity was not disrupted significantly and the economy ended up recovering from the world trade crisis of 1908.[65] As an indication of economic growth, the revenue of *Ferrocarril Mexicano* increased 18%, between 1909-10 and 1910-11.[66] Similar patter is presented in foreign trade: after decreasing 1% in 1908-09, exports of goods other than precious metals increased on average 32% per year from then until 1912-13. [67] Economic policy did not change either. The gold standard remained untouched and the rise in defence expenditure did not prevent fiscal results from recovering from the 1908 crisis, as shown in Chart 4.

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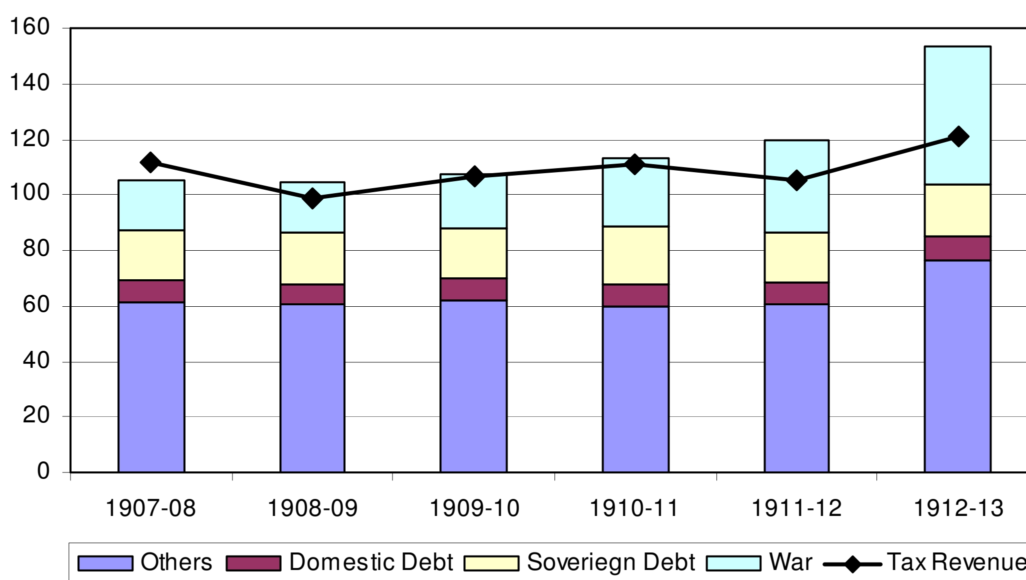
[63] Haber (1992, pp. 11-12).
[64] Calculated from *The Investor's Monthly Manual*, see Chart 5.
[65] This point appears in several peaces of the literature. See, for instance, Maurer (2002, 136) and Knight (1985, 292-293). Reyes (1996, 71) synthesizes the orientation pro capital of the Madero administration by highlighting the symbolic importance of the banquet offered by the president to Mexican bankers a few days after his inauguration.
[66] *AHP*, 11/DFOM-211/1138.
[67] Ficker (2002, 249-250).

Chart 4
Mexico: Tax Collection and Expenditure Breakdown, 1907-1912
(million pesos)



Source:Calculated from Mexico, Cuentas del Tesoro Federal

The Economist described this normality before the crash by stating that "peace in Mexico has been persistently prophesied (by the) London Stock Exchange."[68] Similar positive interpretation also appeared in *The Times*, according to which "the revolution (…) has been followed by a period of unexpected tranquillity"[69] in Mexico, a country that was "prosperous in spite of the revolution."[70] It is not surprising, therefore, that the sovereign risk decreased in the first two years of the revolution, in spite of the apparent paradox this fact may represent. Chart 5 shows that, after reaching a peak of 1.88% in 1908, it oscillated downward and reached a low of 1.40%, in October 1912, when it started a steep rise.[71]

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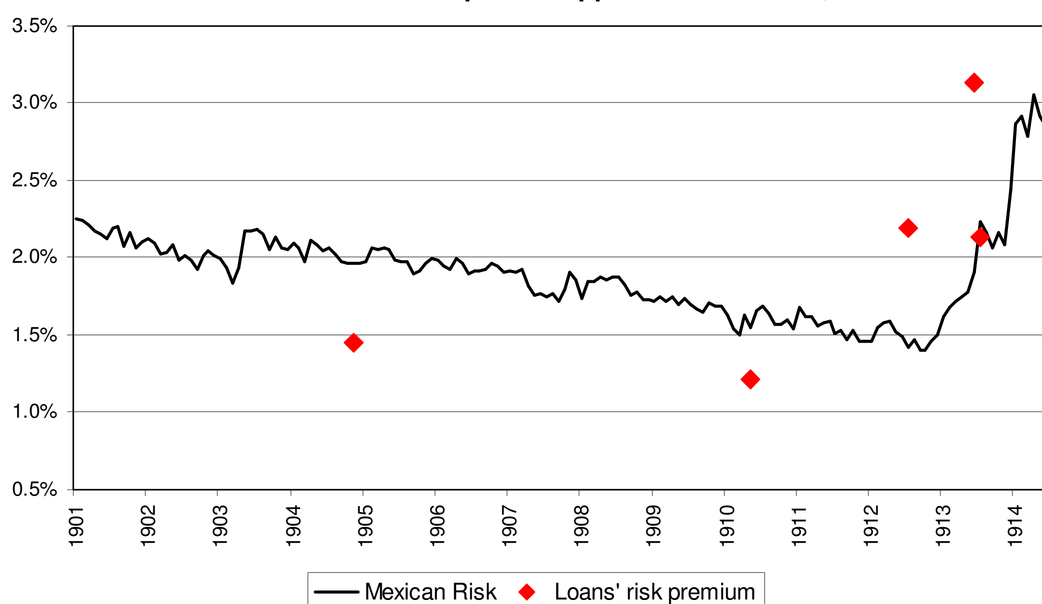
[68] *The Economist*, 4th May, 1912, p. 949.
[69] *The Times*, 18th September, 1911, Issue 39693, p. 3.
[70] *The Times*, 22nd January, 1912, Issue 39801, p. 37.
[71] See Chart 1.

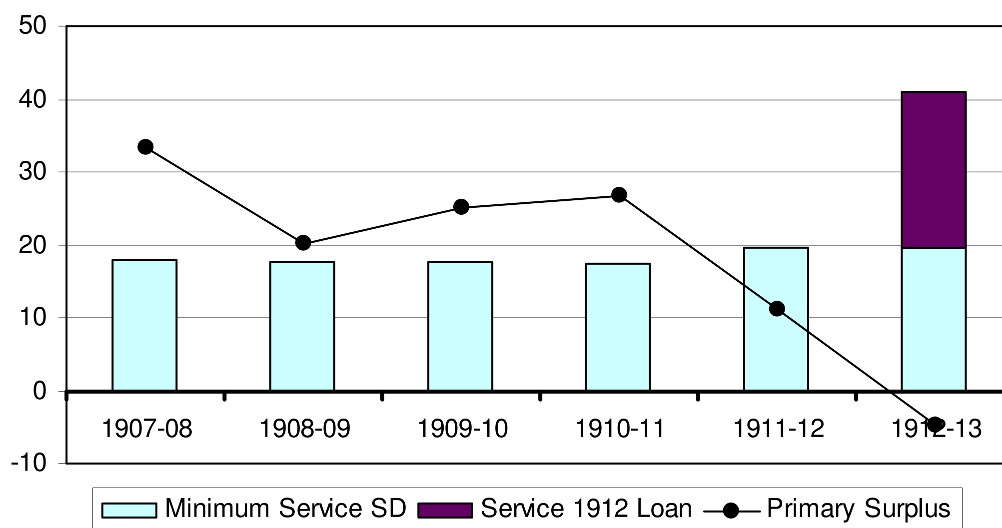
Chart 5
Mexico: Risk Premium and Spreads Applied to New Loan, 1894-1914



Sources: Calculated from Mexico, Colección de Leyes y Disposiciones Relacionadas con la Deuda Exterior; and Investor's Monthly Manual.

The year of 1912 was a turning point that marks the deterioration of the Revolution, following the collapse of the alliance that had deposed Díaz. The rebellion of troops commanded by insurgents such as Orozco, Villa and Zapata demanded a significant increase in warfare expenditure, in the second half of 1912. The budget of the Ministry of War increased 35%, in 1911-12, and conflicts disrupted the economic order for the first time. Tax revenue was compromised and Mexico ran a rather large fiscal deficit and, for the first time in more than two decades, primary surplus was insufficient to cover the minimum services due on the sovereign debt. The fiscal consequences of the Revolution are presented in Chart 6.

Chart 6
Mexico: Primary Surplus and Services on the Sovereign Debt, 1907-1912
(million pesos)



Source: Calculated from Cuentas del Tesoro Federal; and *Annual Report of Corporation of Foreign Bondholders*.

In order to finance the war without defaulting the debt, the government borrowed £2 million from Speyer Company in June 1912. Speyers was a bank from New York that had become a major Mexican creditor when it underwrote a large loan in 1904, which was the first major issue of foreign sovereign debt ever in Wall Street. The securities were issued at 99%, 4.5% interest and the rather short maturity of one year.[72] The risk premium at which the bonds were floated was 3.37%, well above the 1.49% sovereign risk of the period. Such expressive difference suggests that Speyer had access to inside information on the deterioration of Mexican fiscal results and politics, while bondholders were still looking at the economic improvement and relative political stability of the early stage of the Revolution.

This naïve perception was about to change, for the short maturity of the 1912 loan ended up compromising payment capacity in 1912-13, when 52% of the services requirement on the sovereign debt was related to the lending arranged in the previous year, as reported in Chart 6. Nevertheless, the 1912 loan was necessary to hold the country together, as pointed out in *The Economist*. After announcing that "Messrs Speyer Brothers have promised to supply the financial needs of the Madero Government in the present crisis," the periodical asserted that "the outlook in Mexico has somewhat improved," because "the immediate need of Mexico at present is a strong and loyal army

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[72] *AHP,* 6/DFOM-221/430.

(…) and there is no obvious reason why President Madero cannot secure them, provided he has money for their pay."[73]

The optimism proved to be wrong. Even though the army managed to win battles against insurgents, it failed to liquidate popular rebellion that broke down into guerrilla groups dispersed across the country. The final blow against the already fragile Madero administration happened with the formation of a counter-revolutionary movement initiated by General Félix Díaz, the nephew of Porfirio Díaz, who declared war against the Madero, in October 1912. The counter-revolutionary movement soon received the support of Victoriano Huerta, a General loyal to the Porfirian regime who, nevertheless, had just commanded federal troops in the victory over Orozco and Villa. [74]

The potential danger of such restoration alliance was quickly understood abroad. While *The Economist* published a reported entitled "the recrudescence of the Mexican Insurrection,"[75] the New York journal *The Chronicle* announced that "the revolt against Madero rule in Mexico has taken new life and has again grown to threatening proportions," as Félix Diaz "has rallied around himself a large part of the Mexicans who are opposed to President Madero."[76] Not surprisingly, the sovereign risk increased steadily after October, for the first time since the 1907-08 crisis. The worst prognosis proved to be correct, as the country entered in a period of intense conflict in which the government was hit by groups from both the right and the left. If federal troops were not strong enough to liquidate popular insurgents, it became hopeless as the conspiracy of Huerta split the army in two. After a series of bloody but quick battles, the counter-revolutionary forces entered Mexico City and assassinated Madero, in February 1913.[77]

Huerta took office and established a dictatorship that lasted until July 1914, when rebel troops lead by Orozco, Villa and Zapata defeated Huerta administration. Mexico went through a period of extreme polarization during which the federal government became highly militarized but lost control of a growing share of national territory. As politics turned dire, fiscal positions deteriorated sharply. Chart 4 shows that military expenditure increased the already significant fiscal deficit in 1912-13. The crisis appears even more neatly in Chart 6, which shows that primary surplus turned into deficit while the minimum services on the sovereign debt more than doubled.

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[73] *The Economist*, 26th March, 1912, p. 577.
[74] Knight (1990, p. 87).
[75] *The Economist*, 28th December, 1912, p. 1327.
[76] *The Chronicle*, 19th October, 1912, Vol. 95, p. 1004.
[77] Knight (1990, p. 87).

To make matters worst, rebels interrupted railway lines all over the country, especially close to the border with the USA. Besides decreasing merchandise exports by 5%,[78] the interruptions heavily compromised the results of railway companies such as *Ferrocarril Nacional*, which linked the centre and the north of the country. The gross revenue of the *Nacional* decrease 6.6% and profits fell 81.4% in 1912-13.[79] The problem was promptly understood abroad, where the "stocks of the National Railway of Mexico have had a very serious fall, and rumours have been in circulation of a coming receivership," as reported by *The Economist*.[80] Such underperforming results had severe fiscal implications, for the company had been partly nationalized, in 1903, in an operation launched by Paribas and Speyer. From then on the Mexican government guaranteed the servicing on a total of £4.1 million notes issued by the company and underwritten by Speyer and Kuhn Loeb, at 4.5% interest, in 1901.[81] Similar guarantees were applied to new 4% notes underwritten by Paribas to support the company through the 1907-08 economic crisis.[82] As the results of the *Ferrocarril Nacional* deteriorated, the government became in charge of transferring the equivalent of £2.05 and £2.67 to its bondholders, respectively in June and November, 1913.[83]

The resources owned to the bondholders of the *Nacional* constituted in quasi-sovereign debt, which should be added to the minimum services reported in Chart 9. That is the only way one can measure the total financial obligations the government had to meet in 1913, which summed up a total of £6.87 million. Even if the government borrowed all it needed to fulfil the minimum services on the sovereign debt - £2.15 million, the equivalent of 6.65% of the country's sovereign debt stock – it would still have lacked funds to honour the contracts with the *Nacional.* However, a default on the bondholders of that railway company would have been detrimental for the banks that had underwritten its notes: Speyer and Paribas. As these two banks were also the major Mexican underwriters, the government was committed to guarantee the *Nacional's* bonds they had underwritten, for a retaliation launched by Speyer and Paribas would virtually halt the availability of credit abroad and liquidate the chances of a bailout.

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[78] Ficker (2002, 249-250).
[79] *AHP*, 11/DFOM-211/1138.
[80] *The Economist*, 5th July, 1913, p. 4.
[81] *AHP*, 11/DFOM-221/1138.
[82] *AHP*, 11/DFOM-221/821.
[83] Ibid.

Pressured by urgent military expenditures and foreign obligations, the government minted copper coins,[84] which depreciated the peso vis-à-vis the dollar in 15% during the first half of 1913. After three years of revolution, Mexico finally left the gold standard, which increased the weight of the sovereign debt and worsened the fiscal crisis. Unless Mexico was bailed out, a default was bound to happen. The debt crisis was fully acknowledged by the major Mexican creditors. Paribas took the initiative to coordinate the syndicate that rescued Mexico. This was not a surprise, for the bank underwrote 12.75% of the Mexican 1910 loan and all the notes issued by *Ferrocarrical Nacional* in 1908.[85] Moreover, Paribas held the equivalent of £219,431 of the 1910 bonds and £13,043 of the *Nacional* notes, whose sum represented 11.23% of all the foreign bonds the bank owned and 1.72% of its foreign assets.[86] Even though that portfolio was significant, it was not large enough to explain why the house took initiative to intervene in the crisis. Similarly to the incentives that made Rothschilds bail out Brazil in the same period, Paribas seems to have acted mainly in order to preserve its reputation as an underwriter.

Paribas started to articulate a way to prevent a Mexican default in March 1913, when its manager, Horace Finaly, declared to Morgan Grenfell, the underwriter of the 1910 loan in London, that Paribas was "very eager to help the Mexican Government," even though "the extreme financial situation" in the country demanded an operation "in conjunction, with all groups interested."[87] In the same months, Grenfell communicated the plan to Bleichroeder, a banker from Berlin who had launched Mexican loans in 1888, 1893 and 1899 and participated in the 1910 loan.[88] Bleichroeder agreed to take part in the syndicate as long as the contract of the new loan guaranteed the service of the 1899 and 1910 bonds with extra custom hypothecation.[89] In the following month Paribas informed both houses the minimum amount necessary to prevent a Mexican default: £5 million.[90] The correspondence does not provide details on this figure, but the data exposed in Chart 6 suggests how Paribas reached it. If the services on the short-term 1912 loan are not considered, the minimum services on the sovereign debt were around £2 million. Together with the first set of obligations related to the *Ferrocarril Nacional* and the

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[84] Reyes (2006, p. 140-142).

[85] *AHP*, 11/DFOM-221/1249.

[86] *AHP*, *Relevé Général de toutes les Escritures, 30 Juin 1914.*

[87] *AHP,* Finaly (Paribas) to Morgan Grenfell, 12th March, 1913, 11/DFOM-221/27.

[88] *AHP,* Morgan Grenfell to S. Bleichroeder, 12th March, 1913, 11/DFOM-221/27.

[89] *AHP,* Schvabach (Bleichroeder) to Noetzlin, 25th April, 1913, 11/DFOM-221/27.

[90] *AHP,* Finaly (Paribas) to M. Grenfell, 17th April, 1913; and Paribas to S. Bleichroeder, 18th April, 1913, 11/DFOM-221/27.

primary deficit, Mexico needed £4.5 million. Therefore, the amount proposed by Paribas was enough to prevent an immediate financial collapse of the government, but not to prevent the short term bonds issued by Speyers from being defaulted.

The participation of Speyer in the syndicate was rejected by Paribas, because the house wanted to protect the exclusivity of its "friends" Kuhn Loed as the underwriter in New York.[91] In the end, the syndicate was composed by a banks that underwrote the 1899 and 1910 loans: Paribas, Société Générale, Comptoir National d'Escompte, Banque de l'Union Parisienne, Morgan and Spitzer, from France; Bleichroeder, Deutsche and Dresdner Bank, from Germany; Morgan Grenfell, from Britain; J.P. Morgan and Kuhn Loeb, from the USA. The US banks underwrote 11.87% of the bonds, German and British underwriters were in charge of 19% each, and the French group underwrote 45.12%, of which 12.8% were issued by Paribas.[92]

Besides protecting its US partner, Paribas deliberately wanted to separate an eventual arrangement on the 1912 notes from the 1913 sovereign loan, perhaps because the bank understood that Mexican troubled finances were too heavy a burden for a single syndicate to bear. As declared by Kuhn Loeb, Paribas was "trying hard to form group outside of international loan group to provide funds required by way of (the 1912 bonds) to be repaid." The problem was that Speyer Company "categorically refused" to grant a new short term loan to Mexico. In the worst case, Kuhn Loed recognized that the "syndicate will have probably to make advance." [93]

The issues related to both the 1912 bonds and the *Nacional* notes were solved conjunctly by Paribas and Speyer. On one hand, Speyer Brothers was concerned that, "owing to revolutionary state Mexico National Railroad of Mexico could not meet their fixed charges" which would imply in "serious reflection on Government credit as they have guaranteed 4% general Mortgage bonds."[94] Paribas, by its turn, telegraphed that the 1913 loan would "enable issue National Railways of Mexico Notes."[95] Speyer Company then insured that it would renew the £1 million loan it underwrote in the previous year.[96]

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[91] *AHP,* Paribas to Scherer, 23rd May, 1913, 11/DFOM-221/27.
[92] "Bonds du Trésor du Government Fédéral Mexicain 6% 1913, Contract," article 16.
[93] *AHP,* Kuhn Loeb to Hauser, 17th May, 1913, 11/DFOM-221/27.
[94] *AHP,* Edgar Speyer to Scherer, 21st May, 1913, 11/DFOM-221/27.
[95] *AHP,* Edgar Speyer to Finaly (Paribas), 26th May, 1913, 11/DFOM-221/27.
[96] *AHP,* Paribas to Bleichroeder, 19th May 1913, 11/DFOM-221/27. In the original: *"avons obtenu de SPEYER promesse quíls tâcheron assurer renouvellement de £1.000.000."*

Speyer ended up forming a syndicate to issue new short term bonds with JP Morgan and Lazard Brothers, respectively from New York and London.[97]

Nevertheless, the short term loan arranged by Speyer was only issued in August, whilst the 1912 notes matured in June. This suggests that, in contradiction to Paribas' plans, the short term notes issued by Speyer were honoured with recourses from the 1913 loan, which was launched that same month.[98] This is confirmed by the contract of the 1913 loan, according to which the borrowing resources would: (1) cover the services on the sovereign debt for half a year; (2) "constitute the provisions to the liquidation of several short term obligations of the Government."[99] It is not clear, however, how the loan was divided between these two different purposes, nor if the resources were actually used in some other way. For instance, the payment towards *Nacional* notes is not mentioned at all in the contract.

An official resolution issued by the Mexican government in late May provides some more complete, though still obscure, idea of the operation. The document describes the distribution of borrowed resources in the followed way: £4.1 million to Speyer Company, £3 million to the army, £2.04 to debt services, £238,530 to Banco Nacional, £615,225 to the National Railway and £703,973 to public works. The problem, though, is that the document refers to a total of £10.88 million, well above the actual figure lent to the country - £6 million.[100] However, the document provides some importance pieces of information. The 1913 loan was used in many ways, from warfare to public finance. The large amount reserved to Speyer was four folds the needs towards the 1912 short term notes, while the figure explicitly destined to the *Nacional* is well below the resources necessary to honour the guarantees the government needed to meet.

Speyer was in charge of transferring the resources borrowed in the 1913 loan to the bondholders of the *Nacional*. This appears in a letter, written in July 1913, in which the bankers inform president Huerta that they "rely on you to authorise payment on account of money owed by the Government to the Railway of the necessary funds to enable the Railway to meet its obligations and save default."[101] Speyer was not part of the 1913 syndicate but cooperated with it by transferring the borrowed resources to the bondholders of the *Nacional* and by underwriting a short term loan, in August. The

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[97] *AHP,* Scherer to Finaly (Paribas), 22nd May, 1913, 11/DFOM-221/27.
[98] *AHP,* Paribas to Bleichroeder, 19th May 1913, 11/DFOM-221/27.
[99] *AHP,* Mexican 1913 loan contract, Article 10 bis, 11/DFOM-221/27.
[100] *BHA*, C. 1.11, 1913 loan folder.
[101] *AHP,* Speyer Bro to Huerta, 23rd July 1913, 11/DFOM-221/27.

syndicate, in return, avoided a default on the short term notes Speyer had underwritten in the previous year.

The figures exposed above show that the Mexican government was expecting to borrow more than the syndicate was willing to lend. This point also appears in the correspondence exchanged between the two syndicates, in May 1913, in which the bankers refer to the attempt by the finance minister to increase the amount of the loan to £20 million, four times more than the minimum figure confidentially set by Paribas two months earlier.[102] The sum to be borrowed seems to have been the only point of contention in the negotiations, as the government readily accepted the conditions of the loan presented by Paribas. In fact, such simple negotiations provide a very neat contrast from the period when Limantour successfully pressured foreign creditors to improve their offers. Even though the finance minister assured that "new government was strong and serious, fortunately inspired in the methods of Porfirio Díaz,"[103] Paribas pointed out that "general political and financial situation is very difficult" and therefore the loan would only be granted at "minimum risk" for the lenders.[104]

The cause of such a change in relative power between creditors and sovereign is political instability and polarization. Paribas received first hand information on the matter from a representative in Mexico, who stressed that:

> "Political situation is (…) obscure because country still infested by rebellious bands while general Huerta is only president of the republic in character provisory with Félix Díaz as concurrent, and no one knows how it will end.."[105]

The key role of politics in the negotiations appears in several pieces of evidence. In a letter sent to Bleichroeder, in April, Paribas explains that the lending conditions offered to Mexico must be "in our favour" because of the "terrible political circumstances" reported by "our representative in Mexico.[106] The terms of the lending reported in that correspondence were the same of those signed three months afterwards in the contract: 6% interests, 90% discount rate, guarantees of 38% of customs revenue, and 10 years maturity, during which the loan was paid by annual drawing at par. The resulting risk premium applied to the 1913 bonds was 4.00%, well above the Mexican

[102] *AHP,* Kuhn Loeb to Hauser, 21st May, 1913, 11/DFOM-221/27.
[103] *AHP,* Simon to Paribas, 13th March, 1913, 11/DFOM-221/27.
[104] *AHP,* Paribas to Simon, 12th March, 1913, 11/DFOM-221/27.
[105] *AHP,* Rengnet (Paribas, from Mexico) to Paribas, 17th April, 1913, 11/DFOM-221/27.
[106] *AHP,* Paribas to Bleichroeder, 30th April, 1913, 11/DFOM-221/27.

risk that was at 1.77% when the contract was signed. In other words, the operation resulted in expensive borrowing, even though it was arranged one year before the First World War, as financial market was remarkably calm before outbreak of the conflict.[107]

While the underwriters were cautious about Mexican politics, the government was extremely short-sighted, eager to borrow as much as possible regardless the lending conditions it was about to agree with. As political conditions deteriorated the costs of defaulting decreased, just as proposed by the literature appraised in Chapter 1. It is striking that Mexico accepted the maturity imposed by Paribas, which Morgan Grenfell himself recognized as "too severe a burden on the Government."[108] The banker explains such short maturity in the following clear way: the "treasuries would only be attractive" in this manner, for the "element of speculation provided by the annual drawing at par of a Bond issued at a discount would be the principal attraction."[109]

The question is why Mexican risk was relatively low in the first half 1913, if underwriters understood that the loan would only be successful with a rather short term maturity. Inversely, why were the 1913 bonds underwritten at such high risk premium? Asymmetry of information stands out as the only possible answer. After two years of revolution and economic growth in Mexico, foreign observers did not count with the fiscal collapse that happened in 1912-13. This point appears in several contemporary reports. In the middle of the battle between constitutionalists and counter-revolutionaries, in January 1913, *The Times* published that:

> "the country has been shaken and torn by revolutions and general disorder (…) but Mexico has, nevertheless, overcome all these difficulties, demonstrating this her great vitality and abundant elements of wealth. In fact, the output figures point to rather an increase than a decrease (and) the economical situation has had a very direct influence on public finance, although not so much as was feared at first."[110]

The conjunction of poorly informed press and the eminence of a large bailout resulted in an over-optimistic view on Mexican politics. The bailout would solve the unsound fiscal positions and strength the federal army, guarantying at once both political and financial

[107] The average premium risk applied to bonds issued by the major sovereign borrowers, with the exception of Mexico, fluctuated between 1.40% and 1.6% in 1913, well below the annual average of 1.87% for 1907. The world capital market only acknowledged the First World War after the conflict started, for the rate exposed above increased from 1.71%, in July 1914, to 5.88% in January 1915, after the normalization of the London Stock Exchange. For more on the incapacity of investors to foresee the war, see Fergunson (2006).
[108] *AHP,* Morgan Grenfell to Finaly (Paribas), 22nd April, 1913, 11/DFOM-221/27.
[109] *AHP,* M. Grenfell to Finally (Paribas), 18th April, 1913, 11/DFOM-221/27.
[110] *The Times*, 17th January, 1913, Issue 40111, p. 29

stability. *The Economist*, for instance, opined that the loan "gives more hope than the speedy restoration of order than the somewhat optimistic official statement" of the Huerta government,[111] while *The Times* expected a "French loan of £10,000,000 (…) which will enable the Government to prosecute with vigour."[112] That newspaper then expected the "restoration of peace within two months, when the election will take place."[113]

In contrast, Paribas was accurately informed by its representative in Mexico about the country's political deterioration, which made it grant the loan at "minimum risk," as the Mexican finance minister had learnt in the beginning of the negotiations.[114] When the contract became public, in June, bondholders understood that the syndicate were much more reticent about Mexico than they had expected. The loan was far from the bailout the financial community was waiting for, as it involved relatively limited amount issued at too low discount rate and too short maturity. Without a bailout, however, Mexico would not fulfil its military and financial needs, which explains why the sovereign risk increased 24% in the two month after the terms of the operation became public.[115] The underwriters seem to have expected such reaction, which explains why, once they confidentially set an upper limit of £5 million to the operation, they recognized that the "treasuries would only be attractive"[116] at a high risk premium. By using more accurate information when defining the terms of the 1913 loan, the syndicate ended up adjusting the perception of risk applied to Mexican bonds on the secondary market. Expectations about the political future of Mexico played a key role in the process: while the general public at first expected the solidification of the counter-revolutionary regime, underwriters had access to less optimistic but more accurate sources according to which the outcome of Mexican political conflicts were rather "obscure," to quote the agent of Paribas in the country.[117]

Even though the 1913 loan avoided an immediate default, in mid 1913, it did not solve the Mexican political payment problems. Quite the opposite, the lending was "too

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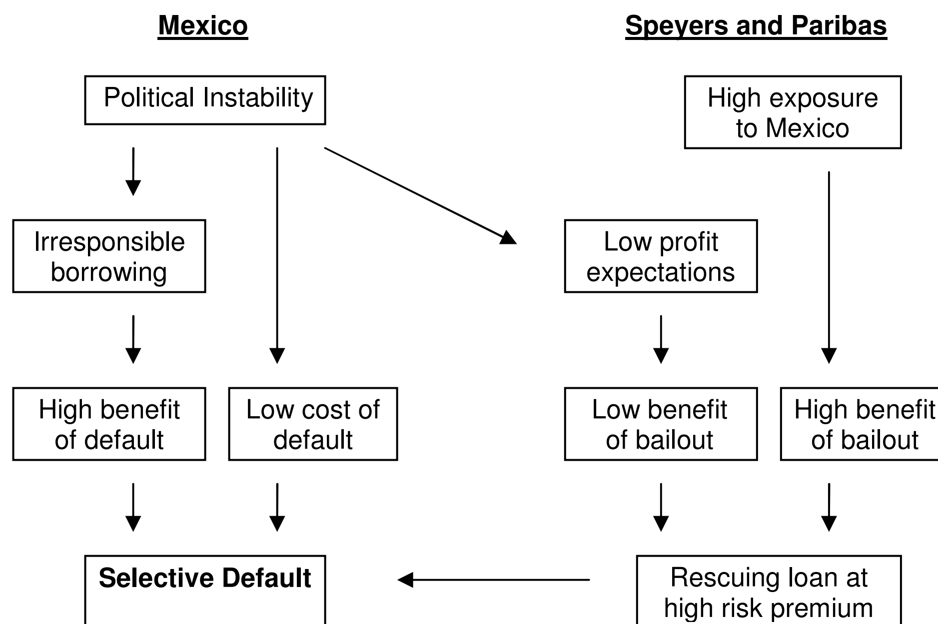
[111] *The Economist*, 31th May, 1913, p. 1341.
[112] *The Times*, 17th May, 1913, Issue 40111, p. 29
[113] Ibidien.
[114] *AHP,* Paribas to Simon, 12th March, 1913, 11/DFOM-221/27.
[115] *The Investor's Monthly Manual,* several issues. It should be noticed that the 1913 bonds started to be floated in August, and therefore it did not influence the increase in the Mexican risk of June and July, 1913.
[116] *AHP,* M. Grenfell to Finally (Paribas), 18th April, 1913, 11/DFOM-221/27.
[117] *AHP,* Rengnet (Mexico) to Paribas, 17th April, 1913, 11/DFOM-221/27.

severe a burned on the Government,"[118] which compromised fiscal positions even more. The Mexican default arrived without surprises six months later.[119] This result is summarised by the Sovereign-Creditor game presented below, in which unstable politics appears as a key feature. In order to meet urgent military expenditure, both Madero and Huerta administration performed irresponsible borrowing, which pushed the debt weight up to unsustainable levels and increased the benefit of defaulting. The fact that the government was under threat from insurgents made both administrations seriously short sighted, and therefore reduced the costs of defaulting. Military threats turned out to be real, as Huerta deposed Madero, in January 1913, and was himself deposed a year and a half later.

Sovereign-Creditor Game: the 1913 Mexican Loans



As Mexico hit the credit ceiling, creditors faced conflicting incentives that worked towards and against a bailout. Paribas, the most important player in the operation, held a significantly large share of Mexican securities, which increased the potential benefit of a bailout. However, political conditions were deteriorating and the Mexican risk was not likely to decrease, which turned the issuing of bailout bonds rather unprofitable. An intermediary decision came out as a result: Mexico was rescued with loan granted at an expensive rate. The operation ended up increasing the debt weight even more and contributing to the Mexican default, in January 1914. Although path

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[118] *AHP,* Morgan Grenfell to Finaly (Paribas), 22nd April, 1913, 11/DFOM-221/27.
[119] *Annual Report of the Corporation of Foreign Bondholders,* 1914, p. 219.

dependence was in favour of Mexico, political instability compromised profit expectations and prevented the country from being bailed out.

5 – Conclusion

The Brazilian and Mexican loans granted between 1912 and 1914 challenge the literature on sovereign debt, for they show that countries may be able to borrow during debt crises. Creditors will always have incentives to bail out their borrowers in order to protect the bonds they have underwritten. This is especially the case when they believe that payment capacity will improve after the operation, for it will increase the prices of the bailout bonds and allow the creditors to sell those securities at a margin. Hence, financial exposure and profit expectation are the benefits creditors find from bailouts, which may be high enough to compensate the opportunity cost of granting such lending – issuing bonds below the country risk. If those benefits are higher than the costs of bailing out, creditors will find it rational to grant cheap credit to countries that hit the credit ceiling.

This was the case of Brazil in 1914, for the country was expected to improve her payment capacity once coffee prices improved, which allowed Rothschilds to issue cheap Brazilian bonds and avoid a default. This case study shows that market-based incentives have made a bank intervene in a debt crisis and prevent a default long before the IMF was created. This fact is relevant for the current debates on sovereign bailouts, which points out that the involvement of private creditors in IMF missions is way to mitigate the moral hazard problems created by the fund.

In contrast, the Mexican Revolution turned the issuing of cheap bonds highly unprofitable in 1913, which explains why the government was not fully bailed out. Even though exposure made creditors grant some credit to Mexico, the lending was far too limited an expensive, and the government defaulted on the sovereign debt in the following year. Differently from the cyclical external shock that hit Brazil, the political crisis in Mexico was perceived as persistent, which turned a bailout into an unprofitable operation. Revolution turned out to be worst than trade crisis.

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BHF	*Biblioteca Histórica da Fazenda do Brasil*, Rio de Janeiro.
BNM	Biblioteca Nacional de México, Mexico City.
RHA	*Rothschild Historical Archive*, London.

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