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Francisco Comín

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Keywords: public debt, default, restructuring, inflation tax, financial repression, fiscal policy.
JEL Classification: E31, E4, E6, F3, F4, H6, N10, N23, N43, H63, F34.

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Introduction[1]

Sovereign debt crisis occurred when public liabilities surpassed the State's ability to meet debt burden, after a period of funding budget deficits through public borrowing. Sovereign debt could not be serviced or refinanced (because creditors believed they will not be repaid) and the government defaulted. In order to identify Spain's debt crisis in the 19th and 20th centuries I will commence by analysing , in the first section, the evolution of the outstanding public debt, the budget deficits, the Spanish economy's ability to borrow, the central government's debt affordability (and debt sustainability) and the profile of the sovereign debt (both the weight of the short term and of the external debt). In the following sections I will study the phases of the history of Spanish public debt, because the default methods used by governments to solve debt crisis changed. In these sections I will focus on the episodes of defaults and rescheduling. When they could not pay the interest on the debt, roll over or pay off the debt, the governments declared default that could be total (repudiation), or partial (restructuring). Reneging on sovereign debt obligation was outright default. Debt rescheduling was partial default, and involved reducing interest rates and /or principal, and lengthening debt maturity.

In the second section I will study the debt crisis inherited from the Ancien Regime. I will concentrate on Fernando VII's debt repudiations and the debt restructurings that Liberal governments carried out up to 1876, including those by Bravo Murillo, García Barzanallana and Salaverría. In the episodes of debt repudiations, the Monarch either did not recognise the existing debt or unilaterally stopped paying the interest. Spanish governments reneged on sovereign debt either because of the change of political regime (absolutist restorations) or when the government was highly indebted and debt burdens became unsustainable. The debt restructurings of this phase were actually covert repudiations as they had been decided upon unilaterally by the governments and imposed on the bondholders. These debt rescheduling implied reducing face value, nominal interest rates or net yields and lengthening maturity.

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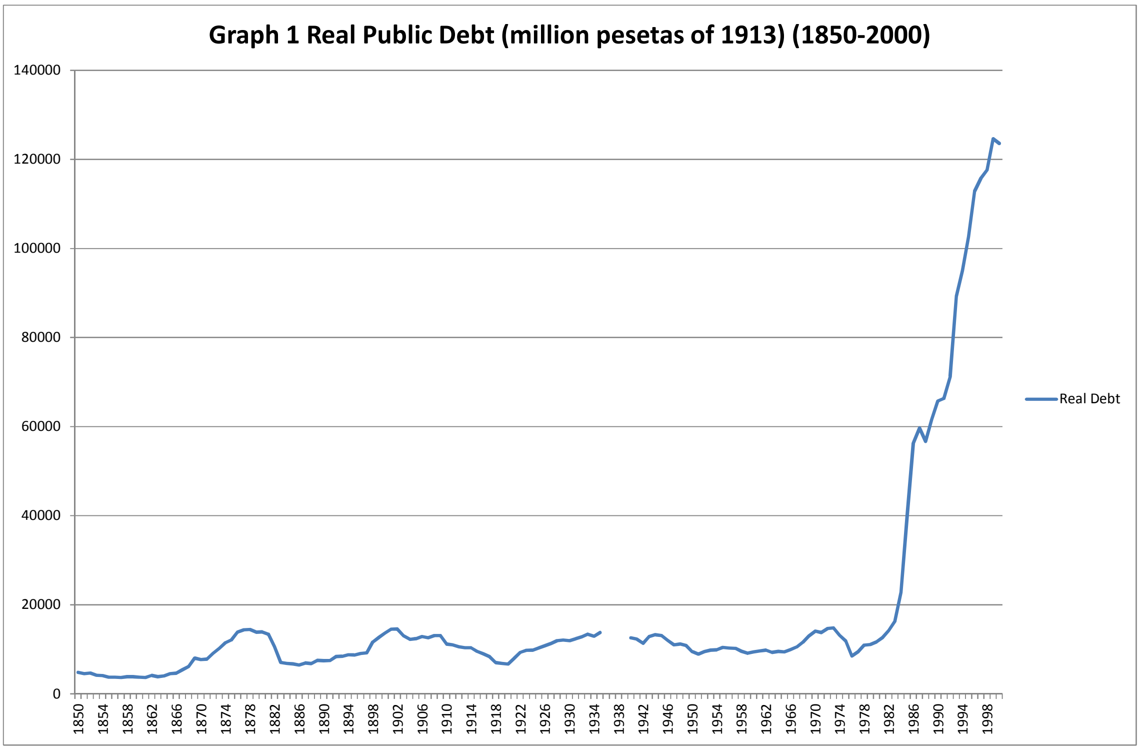
[1] I am very grateful to Pablo Martín Aceña, Elena Martínez and María Ángeles Pons for inviting me to deliver this paper to the two conferences they organised on financial crisis at the Pablo de Olavide University in Carmona (Seville) and at the Fundación Areces in Madrid and for their helpful comments. I would also like to thank to the participants at these conferences for their useful suggestions and comments, especially to Gerardo della Paollera. Finally I wish to thank Daniel Díaz, Leandro Prados de la Escosura Andrés Hoyo and Joaquín Cuevas for data and valuable suggestions.

In the third section I will analyse debt crisis in Spain between 1880 and 1975. At the end of the 19th century, restructurings of the external debt were voluntary and agreed upon with foreign investors, while in the 20th Century the prevalence of internal debt allowed governments to both carry out debt restructurings and also use inflation tax. Consequently, in the three first parts of this section I will study Camacho's arranged, voluntary debt restructuring, the Fernández Villaverde's debt rescheduling and the restructurings that took place in the interwar period. In the fourth part, I will examine how governments turned to currency debasement and inflation tax as a means to expedite repudiation of domestic debt. This mechanism of currency debasement had been used since the First World War and, in particular, during the Franco Regime. Inflation tax solved debt crisis because inflation reduced real value of existing stock of debt and of its service burden. The Franco Regime also resorted to financial repression in order to finance budget deficits and extra-budget public investments in privileged conditions (out of the market). Financial repression was used in Spain to expand domestic debt markets. Thanks to the obligatory investment coefficients banks and savings banks had to lend large amounts of their assets to the general government and state owned firms. Thereby Finance Ministers of Franco enjoyed a lower interest rate than in the capital market and citizens were forced to hold low interest banks accounts.

Finally, in the fourth section, I will analyse the Spanish governments' graduation to responsible public debt management under the democracy. In the first part, I will focus on the transition from repudiation methods during the Franco Regime (printing money by the Bank of Spain and financial repression) to the democratic governments' fiscal responsibility. This graduation from being a serial defaulter was boosted by the State's financial commitments that were adopted when Spain became a member of the European Union (1986). In the second part, I will study how that fiscal responsibility did not prevent Spain from a new debt crisis created by the contagion of the Greek debt crisis in 2010.

1. Debt crisis indicators (19th and 20th centuries)

I analyse four series in order to identify debt crisis: 1) The level of real sovereign debt, 2) the budget deficit /GDP ratio, 3) the ratio of public debt to GDP, and 4) debt affordability or debt burden – which is the percentage of debt service in total budget expenditures.

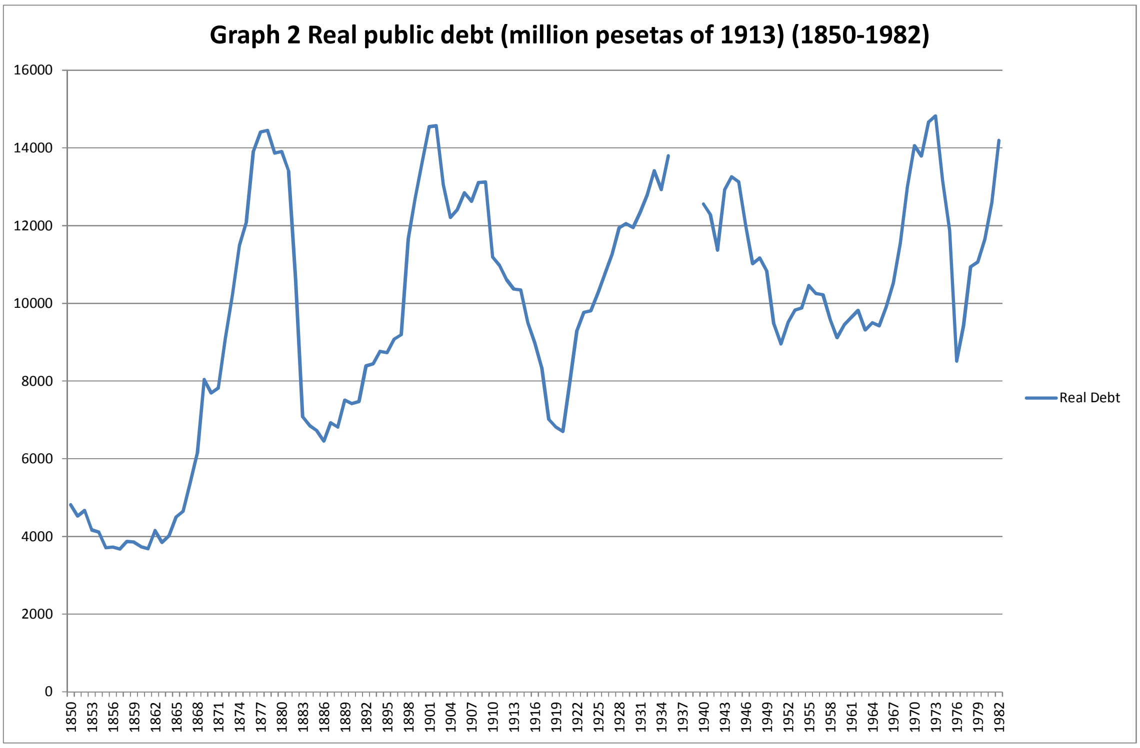


Source: Comín and Díaz (2005), Prados de la Escosura (2003).

1.1.-The level of real public debt: covert repudiation caused by inflation

Until 1983 outstanding public debt (central government debt), in real terms of pesetas of 1913 (graph 1), did not surpass 20,000 million. After that, the real public debt skyrocketed to 124,626 million pesetas in 1999. Before 1983 (see graph 2), we can better see the peaks of the real public debt (1878, 1902, 1935 and 1973), that identify the main debt crises of the modern Spain. The peaks of the existing public debt before 1983 were around 14,000 million pesetas of 1913. We must include the severe debt crisis prior to 1850 that is not reflected in the graph.

Spain exited these debt crisis by reducing the stock of public debt by resorting both to debt restructurings and to inflation tax. First, after the Bravo Murillo debt rescheduling, the level of public debt was brought down between 1850 and 1855. After having been at a standstill for a decade, public debt grew notably between 1864 and 1878, thereby generating another debt crisis. Real sovereign debt fell from this ceiling to a bottom in 1886. The greatest reduction occurred in 1882 and 1883 thanks to the Camacho debt restructuring.

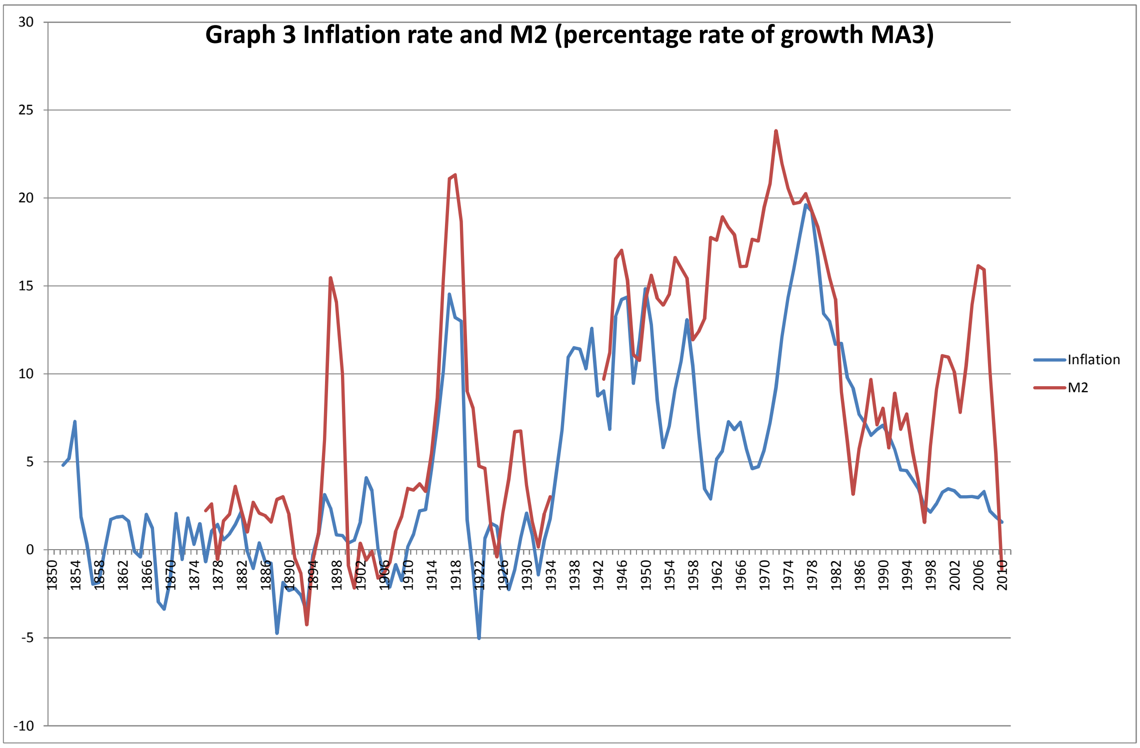


Source: Comín and Díaz (2005), Prados de la Escosura (2003).

Secondly, between 1886 and 1901, outstanding public debt grew, especially between 1898 and 1901, as a consequence of waging the colonial war in Cuba. This new debt crisis was resolved thanks to Fernández Villaverde's fiscal consolidation that restructured the debt and obtained budget surpluses that allowed for paying back part of the outstanding Treasury bonds. Thanks to this, between 1902 and 1904 existing public debt fell. Between 1909 and 1920 the real stock of debt shrank sharply thanks to the inflation process generated by the budget deficits that were monetised (graph 3). At the beginning of the 20th century by reducing the debt's real value Spanish governments exhausted domestic debtholders. Annuitant euthanasia also occurred in Spain.

Thirdly, real public debt grew rapidly between 1920 and 1935 because of budget deficits, mainly caused till 1925 by the war in Morocco. During the Civil War public debt increased for both the republican government as well as for Franco's army funding. War funding was carried out by the respective Banks of Spain (the national bank and the republican bank), so there were not public debt issues to finance the civil war although Franco did receive loans from other fascist governments.[2] Real public debt fell between 1940 and 1951 in the post war period. The fall initially was influenced by Larraz's debt rescheduling, however the descent of level of real public debt after 1944 was caused by high inflationist process (graph 3). Franco honoured the foreign debt Hitler and Mussolini had provided but hurt holders of domestic debt on the national side, and defaulted on the republican liabilities issued during the war.

Fourthly, real public debt stalled between 1952 and 1965 only to increase later until 1973. Subsequently deficit monetisation and inflation reduced the real value of sovereign debt. For a second time Franco hurt those who had financed budget deficits with another partial default caused by inflation (graph 3). Finally, budget deficits during the transition to democracy increased real public debt until the 2008 public debt crisis.



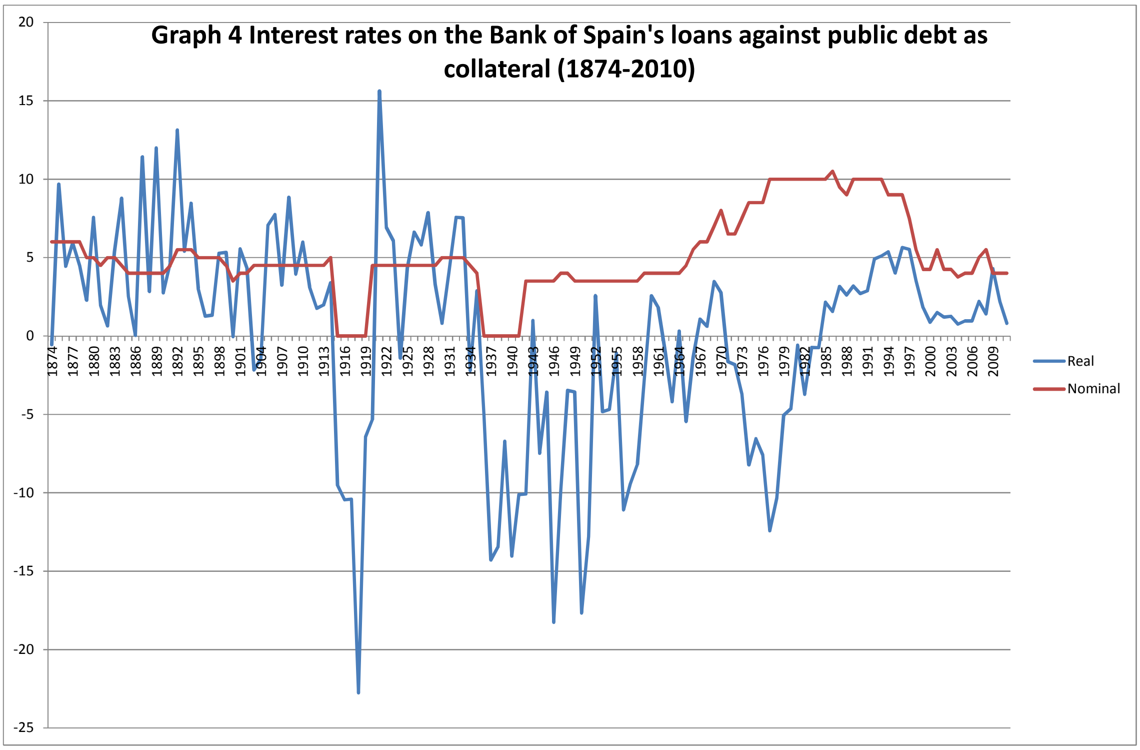
Source: Martin-Aceña and Pons (2005), Prados de la Escosura (2003), Instituto Nacional de Estadística and Banco de España.

[2] Comín (2008).

The inflationary tax acted when inflation rate exceeded 5% for a time. This only happened in the twentieth century (graph 3). First, during the First World War the inflation rate almost touched 15%, when the monetary supply yearly rate of growth reached 21 %. Secondly, between the Civil War and 1992, inflation rate exceeded 5%, except for the years after the Stabilisation Plan (1960-1961). Inflation rate was particularly high (higher than 10 %) during the autarchy period (1939-1958) and the period of transition to democracy (1973-1984), as was the case of the rate of growth of monetary supply. Inflationary tax, therefore, was deeply used during the Franco regime and the transition to democracy, before joining the European Union[3]. These high and persistent inflation rates reduced the real value of outstanding public debt (as we have seen in graph 1).

The inflationary tax also eroded the real value of government bond yields. It is virtually impossible to calculate the average nominal interest rate of public debt along two centuries, given the variety of securities. To solve this problem the official interest rate on loans from the Bank of Spain to private banks against the collateral of public debt is used as a proxy. As shown in graph 4 through the 19th century, real debt interest rates rarely were negative, while in the 20th century negative interest rates predominated in two periods: during the First World War (1915-1920) and between 1936 and 1984. In fact, during the Franco regime the years when real interest rates on public debt were positive were exceptional, despite the growth of nominal interest rates above 5% between 1966 and 1998; in the 1977-1993 period nominal interest rates even reached 10 %. As of 1985, the responsible management of public debt and the control of inflation made it possible real interest rates became positive again.

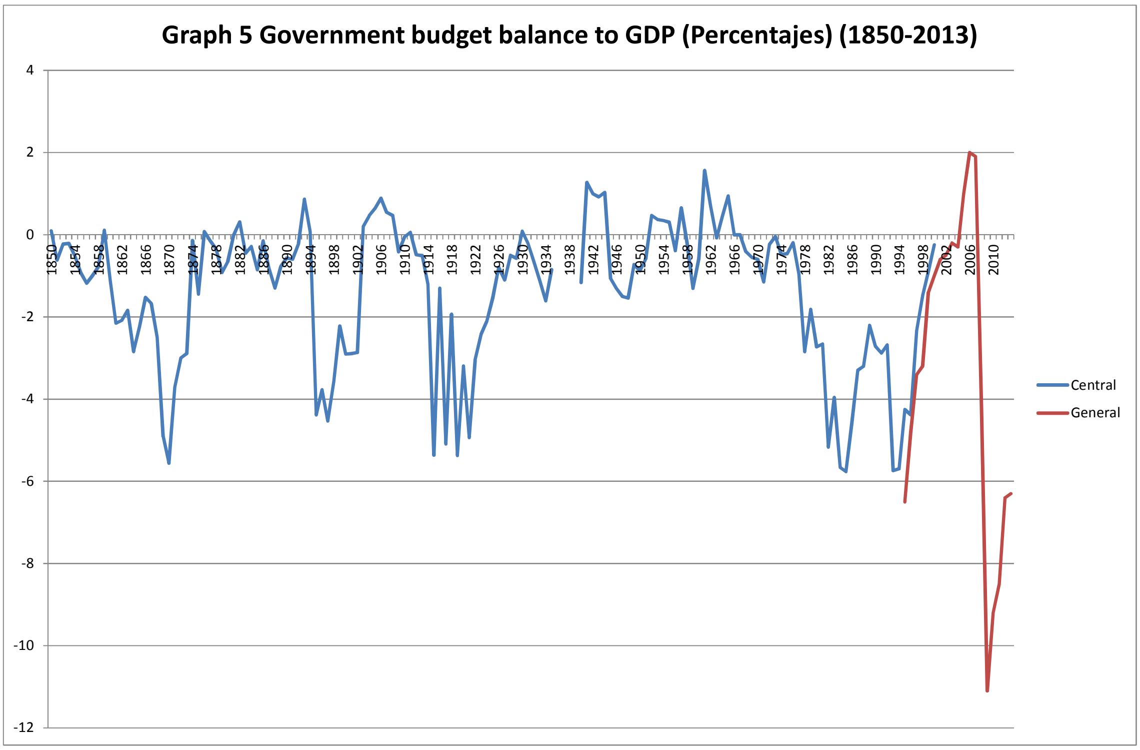
[3] Reinhart and. Rogoff (2010) point out that in emerging markets and in some advanced economies there is a positive relationship between inflation rises and public debt increases.



Source: Martin-Aceña and Pons (2005), Prados de la Escosura (2003), Instituto Nacional de Estadística y Banco de España.

1.2. The origin of the sovereign crisis: budget deficits

The origin of public debt crisis was in the large budget deficits. Graph 5 shows that Spain's debt crises arose when the State's budget deficit neared 6% of GDP. First, after the *Bienio Progresista* (Two Year Progressive Period, 1854-1855), budget balance reached a trough at -1.2% of GDP, in 1856. This level was insufficient to unleash a debt crisis. Second, the deficit levels (5.6% in 1870) reached in the *Sexenio Democrático* (Six Year Democratic Period, 1868-1874) triggered a debt crisis that was solved through defaulting debt interest payments that reduced budget deficit in the 1870's.



Source: Comín and Díaz (2005), Prados de la Escosura (2003), Ministerio de Hacienda and Instituto Nacional de Estadística.

Third, budget deficits were small up to 1892 (a trough of 1.3 of GDP in 1888), and they did not bring about a debt crisis. On the contrary, the large budget deficits generated by the War in Cuba (Spanish War, 1895-1898: 4% of GDP) generated a new sovereign debt crisis in Spain. Fourth, after the 1903-1911 balanced budget period, public deficits reached 5% of GDP, during the First World War and the post war period (1915, 1917, 1919 and 1921), triggering another public debt crisis.

Fifth, budget deficits during the Civil War resulted in the post-Civil War sovereign debt crisis. After Franco regime paid the arrears of the war, budget deficits were infrequent and small (1.3% of GDP in 1959 and 1.1% in 1971). Apparently there were neither fiscal crises nor explicit sovereign debt crises under the dictatorship because Franco's governments resorted to other two unorthodox methods of public debt default, such as financial repression and inflation tax[4]. First of all, during the dictatorship, banks and savings banks had to directly finance the economic growth policy as well as the social and education policies which

[4] See Reinhart and Rogoff (2009).

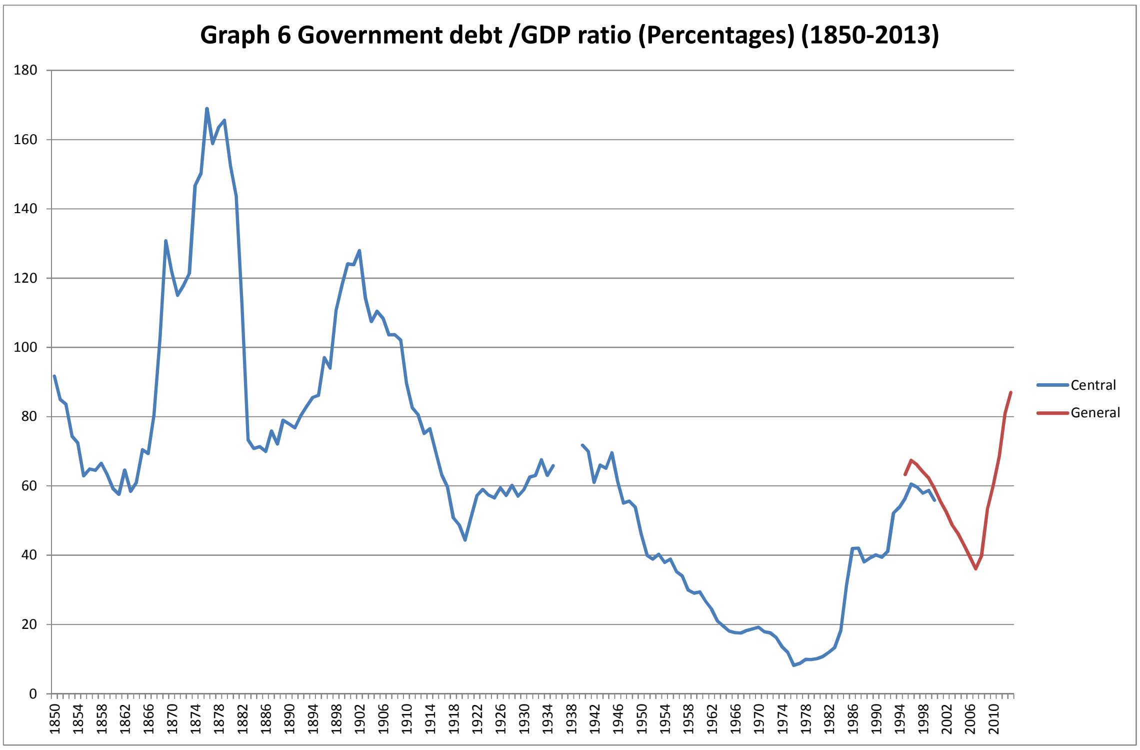
avoided the increase in public spending and budget deficits.[5] Secondly, Franco resorted to inflation tax to liquidate its debts. Those who held bank deposits, bank notes and public debt were the losers of that unorthodox financial policy during the dictatorship.

Sixth, along the democratic period there were two debt crises whose origin can be found in the budget deficits: the first debt crisis took place during the transition to democracy period up to 1985 and the second was in the economic recession of 1993 and 1994. Under democracy, the central government's budget deficit surpassed 2.0% of GDP during the 1978-1997 period, reaching its ceiling in 1985 (5.8% of the GDP) and in 1993 (5.7%). The debt crisis of 1993-1994 was resolved orthodoxly thanks to the policy of monetary convergence on track to the establishment of the euro. The central government's budget deficits diminished from 1994 onwards until reaching budgetary balance in 2000. The general government's budget deficit was reduced from 6.5% of GDP in 1993 until reaching a budget surplus of 1.9% in 2007. Seventh, nonetheless, the great recession increased general government's budget deficit to 4.2% in 2008 and to 11.1% in 2009. Although the government took its time to react, the change in economic policy in May 2010, after the contagion by the Greek debt crisis, allowed for a budget deficit reduction to 9.2% of GDP. The European commission estimate that Spain will fail to reduce the budget deficit that in 2013 will be of 6.4 of GDP.

1.3. The Spanish economy's ability to sustain the public debt

The public debt/GDP ratio (graph 6) shows us the cycles of the Spanish economy's ability for debt payment. The first cycle covers the period from Bravo Murillo's restructuring to Camacho's. In its first phase, between 1850 and 1863, the public debt to GDP ratio dropped from 91.7% to 58.5%. In its second phase, from 1864, sovereign debt increased to 168.9% of GDP in 1876. Between 1868 and Camacho's debt restructuring in 1882, Spain was a highly indebted country (debt/GDP ratio higher than 100%) and the public debt became unsustainable. The debt crisis was solved by the rescheduling of the Finance Minister J. F. Camacho. This restructuring brought outstanding sovereign debt down to 69.9% of GDP in 1886.

[5] Martín Aceña and Comín (1991), Comín (2007).



Source: Comín and Díaz (2005), Prados de la Escosura (2003), Ministerio de Hacienda, and Instituto Nacional de Estadística.

The second cycle covers the period between 1890 and 1920. Once the effects of Camacho's rescheduling had passed, public debt multiplied once again until it reached 127.9 % of GDP in 1902. Between 1896 and 1909, the debt/GDP ratio surpassed 90%, a percentage that indicates the public debt is unsustainable, and the probability of default is high.[6] This debt crisis was solved by fiscal consolidation, debt restructuring and inflation tax. Fernández Villaverde's 1899 fiscal austerity and debt restructuring and afterwards the inflation tax since the First World War reduced the public debt/GDP ratio to 44.4% in 1920. During the interwar period there was no public debt crisis since the debt / GDP ratio never surpassed 67.6% (ratio reached in 1933). Therefore, public debt was tolerable during the great depression in Spain just as there was no banking crisis.[7]

The third cycle covers the period of Franco's regime. In 1940, the central government debt was 71.8% of the GDP. This low percentage, after having waged a Civil War, can be explained because both armies borrowed from the Bank of Spain and, in the case of Franco, from other fascist governments. These borrowings did not involve the issue of securities of

[6] Reinhart and Rogoff (2009).
[7] Comín (1988 and 2011) and Martín Aceña (2004).

public debt. On top of that Franco repudiated the liabilities issued by the republican government during the Civil War including the bills.[8] Neither of the armies issued public debt because they monetised the budget deficit. Monetary financing through currency issuance by the Bank of Spain originated a strong inflationary process that reduced the real value of the public debt, as we have seen. The absence of bonds issues during the Franco regime and the economic growth of the 1950's and 1960's reduced the public debt/GDP ratio to 8.2% in 1976. During the Franco regime there was no formal sovereign debt crisis.

The fourth historical cycle of the sovereign debt took place under democracy. The public debt/GDP ratio grew from 13.4% to 60.5% of GDP between 1983 and 1996. These percentages were sustainable and ruled out any formal public debt crisis during the democratic period, despite the 1992-1993 fiscal crisis when the debt/GDP ratio increased from 41% to 52% in 1993. Afterwards the general government's debt to GDP ratio decreased from 67.4% to 36.1% between 1996 and 2007. When the international financial crisis broke out in 2007 there was not a public debt crisis in Spain. Quite the contrary, the solvency of Spain's Treasury was outstanding. Nevertheless, after 2008, the existing stock of public debt reached 60.1% of the GDP in 2010. The level of public debt was tolerable since Spain almost met the criteria of the Growth and Stability Pact of the Eurozone. Despite this, the Kingdom of Spain's risk premium increased due to the contagion of the debt crisis in other peripheral European countries. The reason for this was that European countries (including Spain and Italy) had their level of debt tolerance reduced due to the political conflicts unleashed between countries in the Eurozone, the markets speculation against the euro and the depressing economic growth perspectives of Europe and Spain. This explains that the public debt /DGP ratio will reach 87.0 % en 2013 as estimated by the European Commission.

1.4. Debt affordability: the ability of government to service its debt

The question here is whether public debt can be serviced by the government. Debt burden (the percentage of debt servicing in total budget spending) is also known as debt affordability and shows whether the Treasury can afford its debt burden (graph 7). The historical cycles revealed by the evolution of debt affordability coincide with those that were analysed previously. Reinhart and Rogoff (2009) pointed out that there were five large default cycles in

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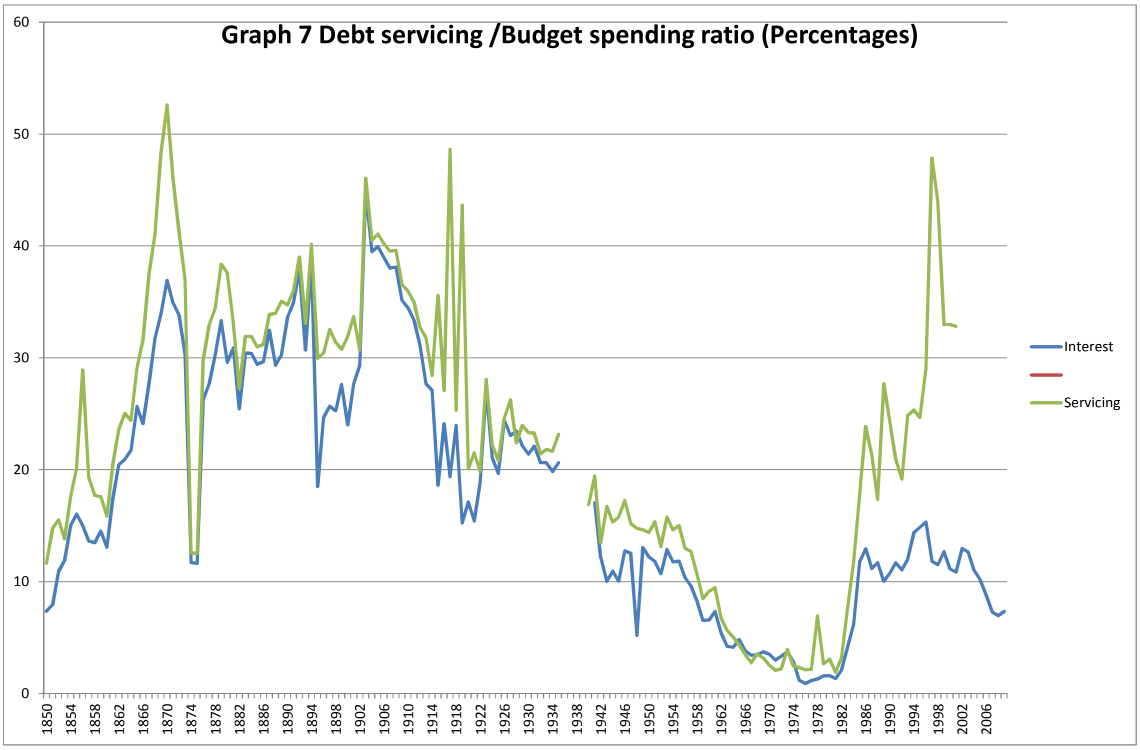
[8] Martín Aceña (2004).

the world; periods when there were many countries deep in a profound foreign debt crisis.[9] Spain shared the severe global debt crises, with the exception of the international debt crisis cycle of 1930-1950.



Source: Comín and Díaz (2005).

First cycle, after Bravo Murillo's debt restructuring, the debt burden /public spending ratio grew from 11.6% to 52.6% between 1850 and 1870. Sovereign debt burden became unsustainable generating a debt crisis that led to default the debt interests, This explain that in 1874- 1875 debt servicing fell to 12.5% of budget expenditures. After the restoration of the Bourbon monarchy, debt interest was paid out partially since 1876, and debt servicing grew from 29.7% of the budget spending in this year to 38.4% in 1879. Once again the mountain

[9] The first international cycle of the debt crisis occurred during the Napoleonic wars. The second took place between 1820 and 1840 when half of the countries of the world defaulted, (among them, all of the recently created Latin American countries). The third cycle started around 1870 and lasted for two decades. The fourth international foreign debt crisis started with the Great Depression and lasted until the beginning of the 1950's. The fifth cycle of debt default includes the debt crisis of the 1980's and the 1990's. Virtually no country experienced a debt crisis in the 2003-2008 period. The only precedent for this debt quietness was the two decade period that preceded the First World War when the gold standard was in effect. We must add a sixth period to the Reinhart and Rogoff's periodization; one that affects the debt crisis that was sparked in peripheral Europe in 2010. See graph 5.1 by Reinhart and Rogoff (2009).

of public debt became unsustainable and the State could not service that large amount of debt interests and repayments. The gap between debt servicing and interest payments on the debt grew up when the share of short-term debt increased (see graphs 7 and 8)

Second cycle, Camacho's restructuring reduced the debt servicing /budget expenditure ratio to 27.3% in 1882. This debt rescheduling avoided the risk of insolvency of the Treasury but it did not solve the Spanish debt problems, because debt servicing continued being unaffordable. In fact the debt burden continued growing until reaching 40.1% of public expenses in 1894. The percentage drop in 1895 was due to the remarkable increase of budget spending to finance the Spanish War in Cuba and the Philippines, through issuing colonial debts. When Spain lost the war with the United States in 1898, the Spanish government had to assume those colonial debts as stipulated in the Treaty of Paris which skyrocketed debt servicing to 46% of budget expenditures in 1903. The fiscal consolidation policy and Fernández Villaverde's debt restructuring reduced the debt servicing /public spending ratio to 28.4 % in 1914. The budgets deficits during the First World Ward raised this ratio to another peak of 48.6% in 1917, making again the debt burden unaffordable. The inflation tax and public debt consolidations of Alba (1917) and La Cierva (1919) all reduced the debt burden on the budget spending to 20.1% in 1920.

Third cycle, during the interwar period the debt servicing / budget expenses ratio decreased from 28.1% in 1923 to 21.4% in 1932, due mainly to the Calvo Sotelo's debt consolidation (1927). These high percentages show that there were fiscal problems in this period. Nonetheless, as we have seen, sovereign debt was affordable and it did not pose an explicit debt crisis.

Fourth cycle, debt burden was tolerable during the Franco regime. Between 1941 and 1975 the State's budget could afford debt servicing, which fell from 19.4% to 2.3% of budget spending. This ratio confirms that there was no formal debt crisis in Spain during the dictatorship. Fifth cycle, during the democratic period debt burden grew from 1.9% to 47.8% between 1981 and 1997. Consolidation of short-term debt reduced this ratio to 32.9 % in 1999. Thanks to the low levels of public debt inherited from the Franco regime, the debt servicing/budget spending ratio oscillated between 10% and 15%, in the period between 1985 and 2005. This percentage was sustainable and did not pose problems for the Ministry of Finance. The fiscal consolidation policy required because of Spain's membership in the Monetary Union reduced the debt burden, and the borrowing costs were only 7.3% of budget expenditures in 2007-2009. This reveals that the Spanish State could afford its public debt at the beginning of the great recession. Debt burden was tolerable and this indicator does not suggest the presence of a debt crisis Spain in 2009. But the growing public debt / GDP ratio, public debt interest rates and the proportion of short-term debt will increase the debt servicing / public spending ratio, making the debt burden unaffordable again.

1.5. The profile of the public indebtedness during the crisis: external and short-term debt

Debt crises changed the structure of public debt, reducing external debt and increasing short-term debt. The subsequent debt restructurings reduced both external and short-term debt. In the first place, debt crises and rescheduling tend to reduce the weight of external debt that was most important in the 19th than in the 20th century. In Spain, the level of external debt was high until 1895, surpassing 26.8% of the total (graph 8).

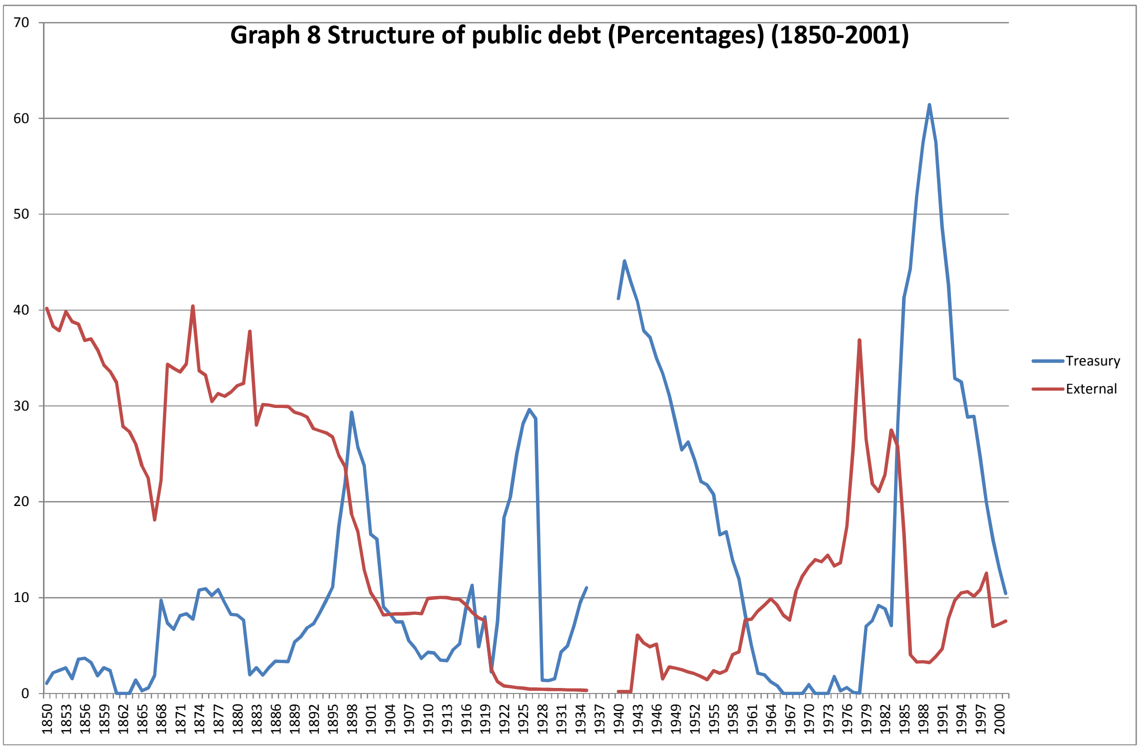
A debt crisis can explode when a country has resorted to an excess of external debt, (issued in foreign currency), because it can lack sufficient foreign currency to honour its interests and payments. This was the case of Spain before 1850 that produced the Bravo Murillo rescheduling. After this covert default, external debt decreased from 40.2% to 18.1% between 1850 and 1867. Given that the Bank of Spain refused to grant loans to the Treasury and that the foreign stock exchanges were closed to the Spanish securities, Bravo Murillo and following finance ministers resorted, from 1852, to the Caja General de Depósitos (General Savings Bank) that siphoned funds from the savings banks to the Treasury, (it was the first use of financial repression in Spain).

However, during the Six Year Period, liberal governments once again resorted heavily to foreign borrowing. In fact, in 1868 Finance Minister Laureano Figuerola closed down the Caja General de Depósitos and once again the Treasury started issuing external debt that recuperated to 40.4% of total debt in 1873. Subsequently, the interest payments in foreign currency of external public debt grew. The debt crisis of the Six Year Period and the debt rescheduling of Camacho', in 1882, reduced the percentage of external debt to 28% in 1883. Given that Spain maintained a bimetallic standard and that silver coins were depreciating Camacho decided to ensure payment of external debt interests in gold. This led to a rapid descent of the gold reserves which in 1883 obliged them to make the peseta inconvertible to gold. At this point, Spaniards started buying Spanish external debt because this ensured higher yields given the interest was paid in gold, in Paris. In the future this would allow the Minister of Finance Fernández Villaverde to carry out a default of the external debt owed by Spanish citizens.

In fact, the debt crisis brought about by the War in Cuba and the demand that the *affidavit* of Fernández Villaverde's rescheduling made on those Spaniards who had external debt, reduced its relevance from 26.7% to 8.2% between 1895 and 1903. The greater weight of the domestic debt allowed the governments to carry out the inflation tax thereafter. When Minister of Finance Fernández Villaverde restructured the debt in 1900 he demanded that Spanish external debt holders to sign up an *affidavit* so that their external securities would be legally converted into domestic debt. This explains the sharp drop of the external debt in the first years of the 20th century. The current account surplus during the First World War allowed Spanish foreign investments. Spaniards bought external debt in foreign hands that was automatically transformed into domestic debt. In that way the volume of the external debt was reduced to only 1.2% of the total in 1921. External public debt became irrelevant.

During the Civil War Franco's army resorted to foreign loans but this is not reflected in the public debt statistics. Besides, Franco paid off this foreign debt quickly in the post-war period. The foreign funding of Franco's army increased external debt to 6.1% in 1943.

After the 1959 Stabilisation Plan and openness, external debt became significant again growing from 7.6% in 1960 to 13.3% in 1974. Nevertheless, it grew even more after the further foreign liberalization carried out by the democratic regime, when external debt reached a peak of 36.9% of the total in 1978. Later, the external debt fell under 10% of the total, and although the 1990's saw recuperation, its dimension never again reached those large levels of the 19th century. After a later, profound drop due to the debt crisis in the democratic period, the external debt recovered after Spain became a member of the European Union, however it was only 7.5% in 2001. External debt was not a problem during the 20th century.



Source: Comín and Díaz (2005).

In second place, in contrast, the short-term debt (Treasury Bills) increased during the debt crisis because the lenders did not grant long-term loans to countries that were in fiscal trouble given the uncertainty and the risk that implied. To solve the debt crisis, the restructurings consolidated the short-term debt, lengthening the maturity dates of the bills. The high percentage of Treasury bills reveals the existence of the following debt crises in Spain (graph 8). First, between 1868 and 1878, the Treasury's debt was around 10% of the existing debt; its volume was reduced to 2% in 1882 thanks to Camacho's restructuring. Second, in the period between 1895 and 1903, the short-term debt reached 29.3% in 1898; the following year, Fernández Villaverde restructured the debt, decreasing its importance to 3.6 % in 1909. Third, between 1922 and 1926, the Spanish governments issued a lot of short-term debt and it reached 29.6% in 1926; its volume was reduced to 1.3 % in 1928 thanks to Calvo Sotelo's consolidation of short-term public debt. Fourth, during the Civil War and the post-civil war period a lot of short-term debt was issued reaching a peak in 1941 (45% of the total). Subsequently, Treasury Bills were reduced to 2% of the total in 1962 thanks to Larraz's restructuring and the payoff of the bills. In fifth place, in the period of the transition to democracy, from 1984 onwards, a great amount of Treasury bills was also issued – making up 61.4% in 1989.

2. The debt chaos inherited from the Ancien Regime

In section 2.1 we will see how, the absolutist governments were irresponsible in the management of the sovereign debt. In the twilight of the Ancien Regime, they repudiated the previously issued debts and stopped servicing them. In 1814, Fernando VII reneged on external debt. In 1823, he repudiated again the external borrowings issued during the Constitutional Triennium (1820-1823). Moreover, Fernando VII stopped paying the interest on domestic debts in 1826. In section 2.2, I will analyse how the first Liberal governments did not honour public debt either. Despite Minister of Finance Count of Toreno restructured the debt in 1834, afterwards the Liberal governments could not service external debt. We will also see how Minister Alejandro Mon consolidated the short-term debt in 1844. In the third section I will examine the comprehensive debt restructuring carried out by Bravo Murillo in 1850. This rescheduling triggered the protests of foreign bondholders and the shutdown of the European stock exchanges to the Spanish securities. This international pressure forced the Spanish government to rectify and to pass a new debt restructuring carried out by García de Barzanallana after a pact with foreign bondholders.

2.1. Fernando VII's defaults

The absolutist monarch repudiated the loans made previously to the Spanish Treasury and neglected debt service. On the contrary, the Liberal governments of the constitutional periods did acknowledge all existing public securities. This meant a radical difference in fiscal principles between liberals and absolutists. However, in practice, the liberals could neither pay interests due nor redeem the debt. The fiscal irresponsibility of the Spanish Treasury Ministers during the first half of the 19th century worsened the debt crisis inherited form the 18th century. This reduced the State's creditworthiness and prevented the financial revolution in Spain. Consequently, the Treasury had to continue funding the budget deficits turning to Spanish financiers who charged high interest rates, increasing the borrowing costs. The large volume of sovereign debt inherited from the Ancien Regime as well as the irresponsible fiscal management burdened Spanish public finances during the 19th century[10].

[10] See Comín (2004).

The wars against France and England as of 1793 were financed by issuing public debt (*vales reales*, royal bonds), and with loans from the Bank of San Carlos, a national bank that had been created specifically to finance the government. Between 1793 and 1808, the public debt grew from 2,019 to 7,194 million reals which is an amount similar to the cost of financing the wars. The *vales reales* issues were excessive regarding tax revenue and the government could not service the royal bonds that were depreciating severely. In 1798 a sinking fund (Caja de Amortización) was created to service that debt. It was endowed with some earmarked taxes and the resources from the disentailment of the properties of the charity and religious institutions (the *desamortización* of Godoy). Nevertheless, the sinking fund barely paid back the royal bonds, (only 340 million reals); because the Monarch allocate the funds from the Caja de Amortización to finance the war expenses thereby breaking his promise to set apart them for debt redemption. This was the first default analysed in this paper. Although they tried to the Liberal Finance Ministers of the period 1808-1813 (Cortes de Cádiz) were not able to solve the debt crisis because they had to finance the War of Independence against Napoleon. The war expenditures increased the face value of the existing bonds up to 11,313 million reals in 1813. The Spanish governments in Cádiz could not honour the sovereign debt. Canga Argüelles' debt restructuring plan, during the Courts of Cádiz, followed again the principle of the sinking fund and tried to resort to disentailment to boost Treasury revenues. It was not possible to carry out the plan but it marked the guidelines for later attempts to resolve the debt crisis in Spain.

In 1814 Fernando VII re-established absolutism and repudiated the Dutch debt. This closed international markets to the Spanish debt. The bad experience with the royal bonds as well as the constitutional and absolutist governments' not servicing internal debt prevented issuing public debt in the domestic market. Between 1814 and 1820 internal loans were expensive, especially between 1816 and 1819 when the Treasury's financing needs were high. The Finance Minister, Martín de Garay, tried to address the debt crisis following the strategy used by the Courts of Cádiz. That restructuring failed, because they allocated few resources to debt redemption (The State Council vetoed the disentailment), and coupon payment (the earmarked tax revenue was small).

In 1820, public debt had grown to 14,021 million reals due to the debt issues and to the fact that the debt interest and arrears on the payments of public expenditures were paid with new securities. The Liberals of the Constitutional Triennium (1820-1823), tried to honour the debt commitments for doctrinal reasons. They resorted to foreign borrowings to avoid the crowding out of private investment. The budget deficits were funded through external debt issues (2,724 million reals). In 1823, the sovereign debt amounted to 16,700 million reals[11].

In 1823, after the second absolutist restoration, Fernando VII defaulted the external debt issued by the Liberals and stopped paying the interest on the domestic debt. Nonetheless, between 1824 and 1830, Fernando VII issued 2,860 million reals of external debt with high interest rates. His Finance Minister, López Ballesteros, restructured the debt in 1825, and defaulted on the Treasury expenditures arrears in 1828 thereby creating an account's default. They didn't even pay the consolidated debt interest because there was no money in the Caja de Amortización, the restored sinking fund. Another unorthodox practice (for the liberal thoughts of those times) was when López Ballesteros managed to redeem public debt through open market operations where he took advantage of the fact that its market price was way less than the face value. These irregularities committed by López Ballesteros led to the closing of the Paris stock exchange to Spanish securities. This Finance Minister relaunched the Bank of San Carlos (renaming it the Bank of San Fernando), in 1829 so as to finance the ailing Treasury. [12] The debt defaults and these irregular operations explain the reduction of the accounting value of the sovereign debt to 5,924 million reals in 1830.

2.2. Debt restructurings done by the first Liberals

When the Liberals returned to power in 1833 after the death of Fernando VII they honoured all the sovereign debts in order to initiate responsible debt management. Nevertheless the large level of existing debt was unsustainable and prevented them from servicing it. Therefore, in 1834, the Count of Toreno, restructured and consolidated the outstanding debt. The restructuring affected external debt (except for the debt acknowledged to France, England and the United States by virtue of the 1828 and 1834 treaties). Two thirds of the external debt was considered "active debt" while the rest was "passive debt" that would not be paid interest. Toreno's restructuring worsened the debt crisis because the 400 million real borrowing issued to implement it had to be done with a 50% discount.[13] Besides, the new debt could only be serviced a year and then coupon payments were defaulted between 1836 and 1845.[14] Considering that failed restructuring, the market price of the Spanish debt dropped even more which prevented issuing new debt in the market because of the enormous discounts that

[11] Comín (1990).
[12] Comín (1995).
[13] See Piernas Hurtado (1901).
[14] Artola (1986, pp. 165-170).

would have required. Default on the debt interest from 1836 onwards worsened even more the debt crisis.

Financing the Guerra Carlista (1833-1841) also aggravated the debt crisis. The European stock exchanges were closed to Spanish securities so the war had to be financed with short-term loans from private financiers and the Bank of San Carlos at very high interest rates and through other indirect compensations and businesses for the financiers. The short-term debt also skyrocketed because new securities were issued to meet the accumulation of unpaid interest and the delays of the Treasury in paying the armies' supplies. The progressive Liberals resorted to disentailment of the church's properties (Juan Álvarez Mendizábal in 1836), to solve the debt crisis orthodoxly, selling public assets. In fact, Mendizábal's disentailment allowed for redemption of a large part of the public debt, the volume of which fell from 10,644 million reals to 5,691 million reals between 1834 and 1840. But the disentailment resources were insufficient to redeem all the public debt, thereby leaving the debt crisis unsolved. Therefore, when the Carlist War was over in 1841, Finance Minister Fernández Gamboa, carried out another restructuring, capitalising on the consolidated domestic and foreign debt interests due. To do so, he handed over securities of the new consolidated debt at 3%.

The political instability that followed the Carlist War generated high budget deficits financed with short term loans. Consequently, the short term debt acquired big proportions, and was serviced through some earmarked taxes. This left the Minister of Finance without available resources to pay the rest of the State's expenditures. To free the resources earmarked to servicing the public debt, Alejandro Mon carried out a consolidation of it, in 1844. This debt restructuring was essential to prepare the 1845 tax reform because, before removing the old taxes, Mon had to liberate them from the government's service of the debt. In July of 1844, Mon restructured the debt exchanging the short term securities, in consolidated bonds (consols) at 3% at the rate of exchange of 35%.[15] Mon's restructuring lengthened debt maturity, reduced debt interests but increased the face value of debt (1,148 million over the 7,673 million that existed in 1844) [16]. This compensated the reduction of the high coupons paid out on the borrowings used to finance the Carlist War. As part of the rescheduling, Mon signed a cash contract with the Bank of San Fernando that reduced the price of financing the

[15] The Treasury handed over 100 nominal reals of new debt for every 35 nominal reals of the old debt.
[16] Comín and Vallejo (2002, pp. 185-195) and Tedde (1988 and 1999).

Treasury. These measures allowed him to meet the State's spending and carry out the 1845 tax reform.[17] Nonetheless, Mon did not resolve the structural debt crisis that, in reality, meant permanent default. The governments had partially met the domestic debt servicing but the external debt "was abandoned since 1835". The debt crisis was not one of illiquidity but one of insolvency. Sovereign debt level became unsustainable[18]

2.3. A two-staged debt restructuring: Bravo Murillo and García Barzanallana

Bravo Murillo's debt restructuring was inevitable but it contained significant defects: it was detrimental to the interests of some creditors, overloaded the budget expenditures and raised the face value of the public debt. The restructuring was drastic given the magnitude of the debt crisis. The only alternative left for the Minister was to declare the Treasury in open bankruptcy thereby defaulting on sovereign debt. This however, did not make up part of a Liberal Finance Minister's ideology.

The general restructuring of Bravo Murillo (1851) acknowledged all debts, even all arrears in State payments. It was good judgement to reduce the huge variety of existing securities into two types: State (consolidated) and Treasury (floating or short-term). The old debts, with one or more capital discounts, were converted into the State debt while personal and material arrears were swap into the Treasury debt. The results of the 1851 restructuring were: a) a slight reduction of the outstanding debt from 3,900 to 3,691 million pesetas, b) a decline of the budget debt burden both due to the decrease of the interests rates and the debt face value as well as for the moratorium on payment of the new "differed debt" interest. Foreign debt holders described this restructuring as "disguised bankruptcy". The Paris stock exchange was closed to Spanish securities. Spain ranked as an insolvent country in the international stock exchanges.[19] On compensation for the discount in the face value and the coupon reduction, Bravo Murillo offered a commitment of service the bonds that, before 1851, were worth almost nothing in the market.

In fact, the restructuring had not been so dramatic. Bravo Murillo only reduced the interest rate to 33% of the existing debt and he only reduced the face value to 2.2% of the debt. This explains why foreign bondholders did not protest for the reduction either the interest rate or the nominal of the securities. They rejected three things: 1) reducing the amount of due

[17] Comín and Vallejo (2002, pp. 229-265).
[18] Piernas Hurtado (1901)
[19] Comín (1988).

coupons to half, 2) the condition of "differed" (they would not pay interest for some time), that would acquire part of the debt, 3) the small budget funds that Bravo Murillo earmarked to debt redemption. The international repercussions of this restructuring arose from the speculators' protests – speculators who had acquired at sale price, large amounts of the redeemable and differed debt before the rescheduling (and therefore their coupons due but not yet paid). Later the investors pressed the Spanish State to recognise the old debts and their due coupons for their face value. When Bravo Murillo left the government, the foreign bondholders continued pressuring the Spanish government. Finally, in July 1867, they got García de Barzanallana to restructure the debt to suit them just when the next debt crisis came about.

This happened in 1866 when the debt service once again became unsustainable because surpassed 30% of budget expenditures. In July of the following year, García de Barzanallana (12^{th}), restructured the debt thereby exchanging differed and redeemable securities and the due coupons into consolidated debt (consols) at 3%. This was exactly what the foreign bondholders had been asking for. In fact, they accepted a 25% cut in face value. The Minister of the Finance demanded cash payment, (that raised 379 million), in exchange for the new consols. That means, the foreign bondholders, (so wronged by Bravo Murillo), let Barzanallana reduce the face value of the debt and lengthen maturity just to get consolidated bonds that paid out interest; they also admitted a 50% reduction in the nominal of the unpaid coupons – something that they had denied Bravo Murillo. Barzanallana corrected Bravo Murillo's restructuring but the latter had paved the way. After two restructurings the Spanish securities had been reduced to three types: the consols at 3%, the Treasury debt and the Public Works debt. Moreover, they updated the State's liabilities and paid the bondholders regularly…..until the next debt crisis arrived during the Six Year Democratic Period.

2.4. Defaults during the Six Year Democratic period (1868-1874) and Salaverría's restructuring

From 1851 the budget deficits had been financed with loans from the Caja General de Depósitos (General Savings Bank), issues of domestic debt and during the progressive periods, foreign borrowings. Nevertheless, public debt grew more than the accumulated budget deficits because special securities were issued to finance expenditures outside the ordinary budget: building highways, subsidising the railways and compensation to the city halls for the disentailment of their land in 1855.[20] The debt servicing increased creating another debt crisis during the Six Year Democratic Period, when debt became unsustainable. To restore debt sustainability another restructuring was carried out by Salaverría, in 1876. Salaverría partially resumed payment of debt interests (e defaulting 66% of the interests of the 90% of the outstanding debt for five years). This restructuring raised the level of debt, through the issue of redeemable debt at 2% to compensate the accrued and unpaid interests. Salaverría's restructuring was an emergency solution to avoid outright default, but it did not restore debt sustainability. In 1879 sovereign debt was 1.65 times the GDP and debt burden represented 33.3% of the budget expenses (graphs 5 and 6). This level of public debt was intolerable for the Spanish Treasury[21].

3. Voluntary debt restructuring and inflation tax

Bravo Murillo and Salaverría's restructurings were imposed on the bondholders and the swaps of old bonds for new were compulsory. On the contrary, Camacho's rescheduling was agreed to with the bondholders and the swap was voluntary, because bondholders could keep their old bonds. Since then, this type of restructuring that takes advantage of the market conditions to the State's advantage, has predominated.

3.1. Camacho's negotiated, voluntary debt rescheduling

In view of the serious debt crisis, Finance Minister J. F. Camacho, restructured the debt to simplify the types of securities, diminish the State's indebtedness and reduce the debt burden. This restructuring took advantage of the favourable market situation, at the beginning of the 1880's, which permitted a reduction of interest rate and an extension of debt maturity. In December 1881, a law authorised issuing 1,800 million nominal pesetas of bonds at 4%, (redeemable in 40 years, at a discount of 20%, with a yield of 5%), to restructure some old securities, (some accepted in the exchange for the face value and others with a discount). Almost all the bondholders opted for the exchange. Likewise, Camacho restructured the consolidated debt to equate its nominal interest rate with the European securities. The bondholders of domestic consolidated debt admitted a yield of 1.75% while the foreign

[20] Comín (1988 and 1996b, pp. 158-165).
[21] Comín (1996).

bondholders initially rejected Camacho's restructuring; they demanded a yield of 2%.[22] Camacho's restructuring was successful because it ensured the bondholders that interest payment would be for the whole value. The foreign bondholders were guaranteed payment in gold.

The rescheduling was fast and complete and it restored debt sustainability. Camacho's merit was to seize the market opportunity to lower the annual servicing of the redeemable debt (in exchange for a slight increase in face value), and reduce the capital of the nonredeemable debt (at the expense of a small increase in the interest rate). Camacho diminished the level of the sovereign debt from 13,500 million to 6,800 million between 1880 and 1883; in relation to the DGP, it fell from 152% to 73%. The rescheduling reduced the debt burden from 33.3% to 25.4% of the total budget expenditures between 1879 and 1882, but it went up to 30.4% in 1883. Afterwards, the public debt and its service once again increased due to persistence of the budget deficit which worsened during the War in Cuba (graphs 5 and 6). The level of the sovereign debt stabilised at around 7,000 million pesetas after Camacho's rescheduling. After 1895, the War in Cuba increased the State's borrowing and unleashed another public debt crisis. The debt/GDP ratio was 77.7% in 1890. After that, it grew from 85.5% to 127.9% between 1894 and 1902. Sovereign debt was again unsustainable and this new debt crisis was resolved by Fernández Villaverde's fiscal austerity package, tax reform and debt restructuring in 1900[23].

3.2. Fernández Villaverde's debt restructuring

The cornerstone of Fernández Villaverde's fiscal consolidation package was restructuring the debt because it reduced government spending. In 1898 the debt burden reached 43% of the budget's spending; that was unsustainable. Hence, Fernández Villaverde restructured the public debt with three measures: 1) the consolidation of the Treasury's debt in redeemable debt, with maturity of 50 years, 2) the exchange of the redeemable debt into non-redeemable debt, and 3) the establishment of a 20% tax on domestic debt interests, (including the external debt that Spaniards held) . Although Fernández Villaverde preferred the redeemable debt he relinquished his own ideas and increased the non-redeemable debt from 56% to 81% between 1898 and 1907. The suspension of the pay back payments and the lengthening of the maturity

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[22] The Finance Minister reached an agreement thereby giving a 0.87% commission to the bondholders of external consolidated debt who opted for swapping and who paid a 50,000 pound sterling commission to the Council of Foreign Bondholders.

[23] Comín, Martín Aceña y Vallejo (eds.) (2006).

of redeemable debt were compensated by the increase in the nominal interest rate. This initially increased debt servicing in budget spending from 43% to 46% between 1898 and 1903, but later they dropped to 28% in 1914.

The novelty of Fernández Villaverde's restructuring was the establishment of the 20% tax on the domestic debt interest (public debt had been tax exempt until then), which reduced net debt burden, (interest paid on minus tax). Fernández Villaverde's restructuring shows that the government could ask the Spanish bondholders for more than the foreign lenders). Since much of the external debt was in Spanish hands, the Finance Minister asked them to sign an *affidavit* to convert it into domestic debt. This meant a forfeit for the Spanish bondholders because they would no longer receive the interest payment in gold, but in pesetas, and they would be subject to the 20 % tax on debt interest. In compensation for the loss, Fernández Villaverde offered the bond holders a commitment to service the debt and to maintain the debt real value by stabilizing the prices, fighting inflation. Another two factors increased debt burden after Fernández Villaverde's reform: 1) The State assumed the debts issued by Cuba and the Philippines between 1899 and 1902; 2) the debt for Villaverde's rescheduling were issued with appreciable premiums so as to compensate the longer maturity which increased the outstanding public debt.

Fernández Villaverde's restructuring temporarily solved the debt crisis, restoring debt sustainability. The existing public debt fell from 13, 280 million pesetas to 10,325 million between 1901 and 1914; the debt to GDP ratio diminished from 127.9% to 44.4% between 1902 and 1920. As we have just seen, the debt burden in the budget also fell. The feature of the Fernández Villaverde's fiscal policy was the budget surplus (1899 – 1908), which allowed paying off the short-term debt in the Bank of Spain's portfolio. Fernández Villaverde's financial orthodoxy was proved when, as Prime Minister in 1903, he presented a bill to implant the gold standard in Spain – a bill which later failed in parliament.[24]

3.3. Debt restructuring in the inter-war period

Public debt restructurings were less frequent and more respectful of the subscribers in the 20th century. They were not carried out under threat of debt unsustainability but rather to take advantage of the favourable conditions of the financial markets. These restructurings were optional: when the holders rejected swapping, the Treasury paid off the old debt. Worthy of

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[24] Comín (1998 and 1999), Comín, Martín Aceña y Vallejo (eds.) (2006).

mention are those restructurings carried out by Calvo Sotelo (1927-1928), Chapaprieta (1935) and Larraz (1939).

In 1927 Calvo Sotelo consolidated 5,225 million of Treasury bills at 5% in consolidated debt. The following year, the Minister swapped the non reedemable for redeemable debt. These restructurings were successful in part because the new debt was exempt of the tax of 20 % on the debt interest. Chapaprieta's restructuring, took advantage of market conditions to lower the interest rates on the public debt and to consolidate the Treasury's debt by lengthening the maturity[25].

In 1939 Larraz restructured the sovereign debt to reduce the interest rates; he also suspended debt repayment until 1946. Larraz took advantage of the low market interest rates which originated from the large monetary supply in the post-war period. Moreover, this restructuring was prepared by the 1939 monetary policy: a) interest rates of bank discounts at the Bank of Spain were reduced, b) priority was given to the new bonds for payment of coupons, and c) the government assured the banks automatic pledging of Treasury bonds at 90% of their face value as well as exemption from stamp duty. After the Civil War, the budget deficit was monetised once again trough printing money and pledging public debt by the Bank of Spain. Larraz's debt restructuring reduced the debt service burdens in the public budget.

3.4. Currency debasement and inflation tax

The historical experience of Spain follows the pattern revealed by Reinhart and Rogoff's study. When governments cannot issue foreign borrowings they turn to the issue of domestic debt. A consequence indeed of defaulting external debt in Spain was the growth of domestic debt. The governments then learned that they could default on their domestic creditors more easily than on the foreign creditors using two types of disguised default consisting of inflation tax and financial repression[26]. Domestic debt default through inflation was possible when fiat money displaced coinage. The theoretical models do not explain the paradox that governments implemented inflationary monetary policies that created inflation rates higher than the level that would maximise revenues by seigniorage. Reinhart and Rogoff explained this paradox using the argument that, by means of inflation, governments sought to

[25] Comín (1988).

[26] These disguised defaults are not included in the Reinhart and Rogoff series although they are indirectly reflected in the inflationary crisis and in banking regulation.

reduce the real value of the domestic public debt.[27] By creating inflation, governments seek to finance their budget deficits by printing money and by defaulting on domestic debt.

In 20th century Spain the Treasury did without the defaults that had been so protested in the previous century and instead turned to inflation tax. The mechanisms of inflation tax were set up in 1874 when the Bank of Spain was granted the monopoly to issue banknotes in exchange for becoming the Treasury's lender. Finance Ministers monetised the budget deficit. This was possible because Spain never belonged to the gold standard; what is more, as of 1883, the peseta was no longer convertible to gold. The budget deficit could be monetised directly. The Treasury asked the Bank of Spain for loans, the latter carried this out by issuing bank notes and increasing the balance of the Treasury's current account. The bills from the Bank of Spain and the banks' current accounts began to predominate over coins in the money supply. This increased the country's monetary base and therefore generated inflation and domestic currency depreciation. Nonetheless, the Finance Ministers did not abuse the monetisation of the deficit except between 1895 and 1899 when the War in Cuba was financed with short term debt underwritten by the Bank of Spain. In the 20th century, from World War I, Spanish governments resorted to indirect monetisation of the budget deficit through the pledged in the Bank of Spain of the public debt which had been underwritten by the banks. This triggered an inflationary process that reduced the real value of the domestic debt. In parallel, the domestic debt developed utmost importance due to the reduction of the external debt in that same period, as we have seen. Therefore, from the end of the 19th century on, Spain could have recourse to the inflation tax which substituted the debt defaults and restructurings as a way to solve the debt crisis. By issuing money, the Spanish Treasury settle its financial woes and reduced the real public indebtedness. The inflation tax had three advantages for the Finance Ministers: 1) the bondholders, who suffered money illusion, did not notice it, 2) budget deficits could be funded cheaper and without increasing fiscal pressure, and 3) the existing real debt and real interest rates dropped.

The inflation tax was widely used by the Spanish Governments from 1914 until the 1970's. In the post-Civil War period it was used abusively when, as we have seen, the real debt interest rates were negative and the debt real value went down. Nevertheless, after the period of high inflation in the 1970s, Spanish investors lost money illusion. From then on, the

[27] During the intense inflationary processes after the First World War, (in Germany, Greece, Italy and Norway), in the Second World War, (Japan), in the 1980's, (Argentina, Brazil and The Philippines), the magnitude of domestic public debt was at least as large as the monetary base.

government had to raise the nominal interest rate of the State's debt when there was inflation because the investors wanted to maintain the real interest rate. Moreover, political democratisation and the liberalisation of the Spanish economy from 1977 forced the government to manage the debt responsibly.

Financial repression was another unorthodox way of financing the public sector which avoided explicit debt crisis during the Franco regime[28]. Financial repression forced Spanish savers to lend to the government at below-market interest rates through the following measures: caps on interest rates, purchases of the public debt by stated owned banks, financial regulation requiring banks and savings banks to hold high portfolios of sovereign debt, and tax incentives to savers to by bonds. The compulsory investment coefficients in public debt and the INI bonds had forced banks and savings banks to finance public and private investments under the Development Plans (1964-1974)[29]. That compulsory bank financing of extra-budgetary public investments prevented the emergence of budget deficits and public debt issuance in market conditions during the Franco regime. This financial repression involved an implicit tax to be paid by depositors of banks and savings banks that subscribed public debt, because the yields they received was lower than that of the market. It was a covert repudiation of the savers' funds.[30]

3.5. The consequences of debt crisis and restructurings on the stock exchange and bond yields

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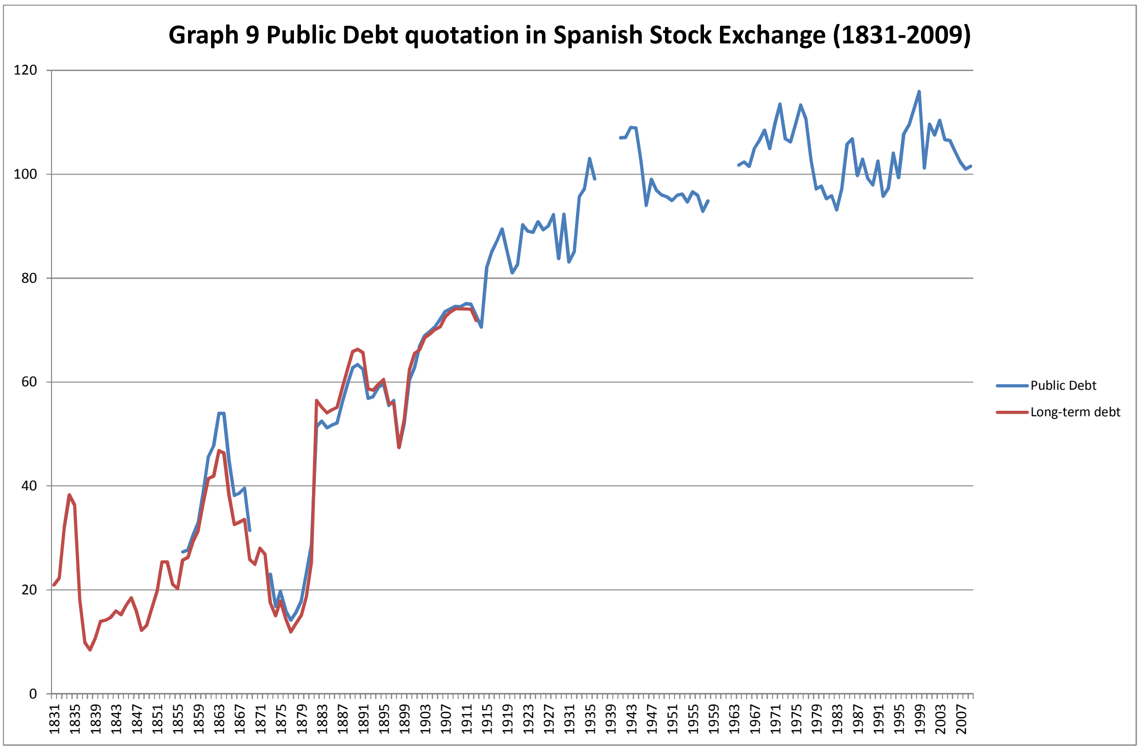
[28] Financial repression was "the more subtle way of debt restructuring", according to Reinhart and Sbrancia (2011) and it was implemented, jointly with inflation, in advanced countries between 1945 and 1980, and subsequently in emerging countries, to reduce "lofty mountains of public debt".

[29] See Comín and Vallejo (2009).

[30] Comín (2007).



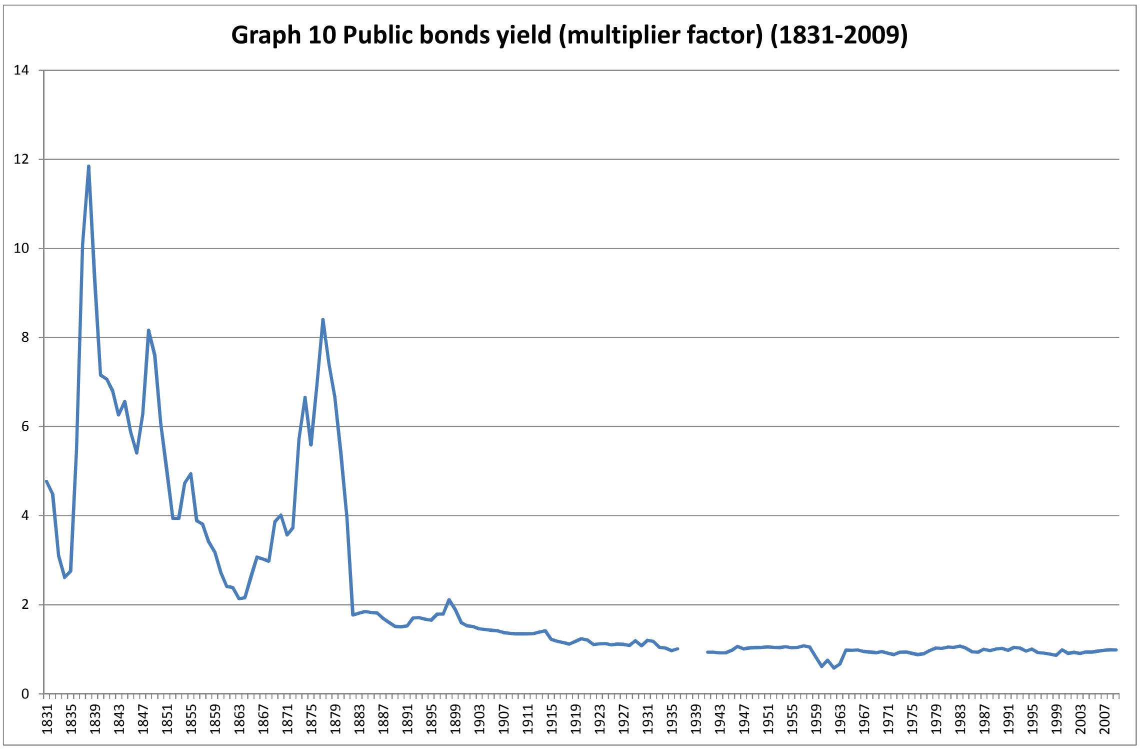
Source: Hoyo (2007)

Between 1831 and 1915 the market price of government debt on the Spanish stock exchange did not exceed 80% of its face value (graph 9). This graph also shows that the public debt quotation fluctuations were large, and so did its unitary yields whose evolution has an inverse relationship to debt market prices (graph 10). The explanation lies in the troubled history of public debt and in the fiscal irresponsibility of the governments through the 19th Century[31]. The *Guerra Carlista* War sank the quotation of public debt to 8.4% in 1838. Debt reschedulings by Mon, Bravo Murillo and Garcia Barzanallana increased total public debt price to 55.0 in 1863. This amounts to public bonds yields falling from 11.85 to 2.14 times its face interest rate between 1838 and 1963 (graph 10). Between those years there were economic, financial, stock exchange and political crisis that reduced public debt quotation in 1847-1848, 1854-55 and 1864-1877. The last one was the most serious economic crisis which led to the political revolution and the Sexenio Democrático, when governments defaulted again on the public debt. As a result the price of debt sunk to 11.9% in 1877 (inversely sovereign bond yields increased to 8.4 times its nominal interest rate). Subsequently, Salaverría' debt restructuring and, above all, the Camacho rescheduling raised the price of the Spanish public debt to 62.4 % of its face value in 1891. Bond yields were reduced to 1.77

[31] See Comín (2010).

times its nominal rates. Camacho's rescheduling normalised the public debt markets. Since then bond yields never returned to the previous high levels. And the diminishing trend of bond yields continued from the Fernández Villaverde's rescheduling on (graph 10). Then the funding of the War in Cuba by issuing short-term debt lowered again sovereign bond price in the stock exchange to 44.7 % in 1898. Afterwards, Fernández Villaverde's debt settlement raised debt securities market price to 75.1% in 1911. During the First World War, the quotation of public debt exceeded 80% for the first time, reaching 89.4 % in 1918. The current balance of payments surpluses allowed Spaniards to buy external public debt in the European markets. Quotation of public fell in the post war crisis (1919-1920) and during the great depression (1929 and 1931). The recovery of the stock exchange from 1932 raised the public debt quotation to exceed its face value in 1935 for the first time in these centuries. This means that, also for the first time, public debt yields equalled debt nominal interest rates (graph 10).

During the autarky, the market price of government debt was about 95%, coinciding with negative debt interest rate, budget deficits and the stagnation of the economy. After the Stabilization Plan the quotation of public debt increased to 113% in 1972, due to economic growth, absence of budget deficits and positive real interest rates of sovereign debt. The economic crisis of 1975 and the negative interest rates caused the fall of debt quotation to 93 % in 1983. Political uncertainty and rising budget deficits also contributed to the lower public debt price in this transition to democracy period. Subsequently, the attempt of the government to implement a responsible management of public debt since1985 accounts for the improvement of public debt quotation. After the fall of 1992-1993 the market price of Spanish public debt increased reaching a 116 % peak in 1999. Afterwards debt quotations decreased to levels close to 100%, because of joining the euro and the fall in public deficit face interest rates and budget deficits. Actually, the causal factors explaining sovereign debt quotation rising over its face value since the Stabilization Plan were the following: absence of explicit public debt defaults, implementation of inflationary tax, financial repression, lack of budget deficits and, for the most time, economic growth. The exceptions were the 1979-1984 and 1992-1993 crisis, when real interest rates were negative due to economic recession and high budget deficits.



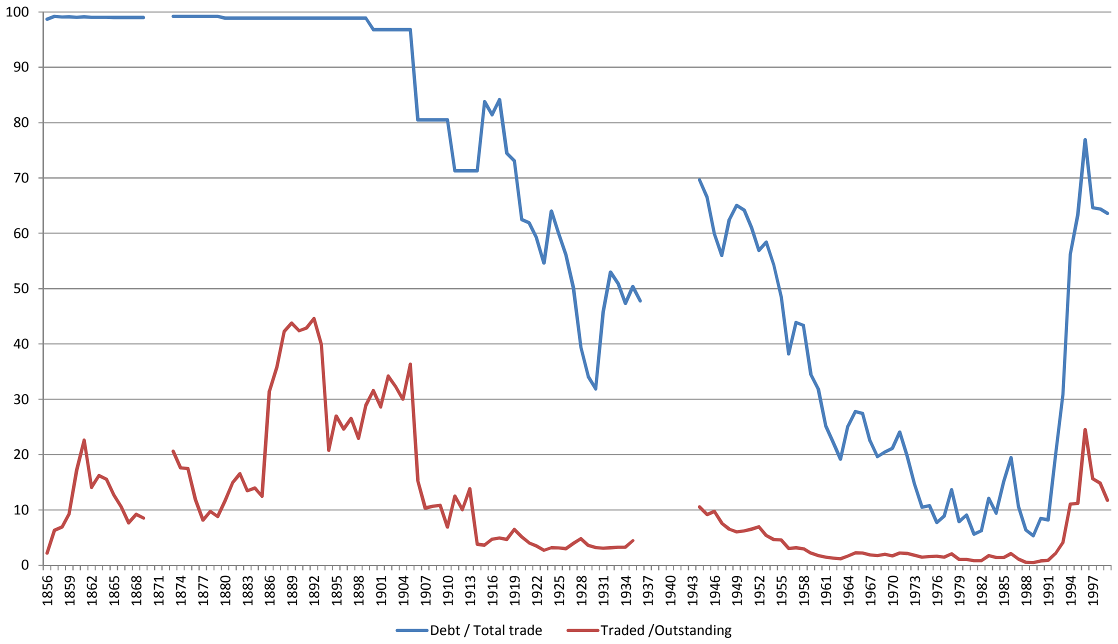
Source: Hoyo (2007).

Changes in debt securities prices depended on the volume traded on the stock exchange. Graph 11 shows that only a small share of outstanding public debt was being traded on the stock exchange. The share of sovereign debt traded was over 10 % of the outstanding debt in the following periods: 1859-1914 and 1994-1999. Moreover, only between Camacho's debt restructuring and Fernández Villaverde's one the percentage of debt traded on the stock exchange was higher, between 20 and 40 % of the outstanding debt (1886-1906). On the opposite side, the low percentage of debt traded during the interwar period and the Franco regime stands. This means that subscribers generally did not sell public debt in secondary markets, except in exceptional circumstances. The percentage of debt traded on the stock exchange increased when its quotation was growing in the periods after the following debt restructurings: Garcia Barzanallana's, Salaberría's and particularly Camacho's (graphs 9 and 11). A century later, in the 1990s, the increasing trading of public debt on the markets was explained by the creation of new markets for it, as we have seen.

Well, although only a small percentage was sold, public debt was the main security traded on the Spanish stock markets until 1935, when it accounted for over 50% of all volume traded. In the 19th century, debt transactions were almost 100% of all the stock exchange trade (graph

11). As of the 1960s, debt transactions became less important in the stock markets, being the causes: the reduction of outstanding public debt and the beginning of the issuance of corporate bonds and the expansion of corporations, which shares began to be traded in the markets. The size of public debt on the Spanish stock market was revived in late 1980s, after the new public debt policy was implemented and the stock of public debt increased. Therefore, the graph 11 implies that until 1936 the stock market crises in Spain were mostly generated by the sovereign debt crisis.[32] Actually, sovereign debt troubles were a key determinant of the evolution of the Spanish economy and financial markets during the 19th century and the first half of the 20th.[33]

Graph 11 Debt traded / total securities traded and debt traded /outstanding debt ratios (1856-1999)



Source: Comín and Díaz (2005) and Hoyo (2007).

4. The debt crisis during in the democratic period

According to Reinhart and Rogoff (2009), Spain is one of the last countries in Europe to graduate from serial default. This graduation took place during democracy.

[32] See Hoyo (2007) and Cuevas (2012), who points out that Spanish stock exchange crisis coincided with financial crisis in Spain and international crisis. See Martín-Aceña, Betrán and Pons (2009).
[33] Comín (1988, 1990, 1996, 1999, 2010 and 2011).

4.1. Graduation in responsible debt management in the democratic period

At the end of the 20th century default - either outright or disguised – on the Spanish public debt was unthinkable. Responsible public debt management was set as a goal by Spanish government in 1978 but it was not actually implemented until 1987, a year after Spain became a member of the EEC. In an initial phase, (the period of political transition to democracy from 1978 to 1986), financial liberalisation tried to put an end to the financial repression that had helped to fund the government under Franco, in conditions that were advantageous in relation to the market. During the transition to democracy the waiver of financial repression demanded changes in public debt policy that from 1978 had sought three goals: 1) bring public debt issuances closer to the financial market conditions, 2) place the debt between the public and non-financial institutions, and 3) dispense with recourse of the Treasury to the Bank of Spain funding. The first democratic governments tried to avoid financial repression that concealed the actual financial burden of the public budget. To create a domestic debt market, from 1978, the following reforms were introduced: a) the debt issues were regularised and new placement methods, such as auctions, were adopted, b) new debt securities were created and they were traded with new financial technologies, such as account entries and the telephone market. Likewise, democratic governments pursued monetary discipline by trying to finance budget deficits without resorting to inflation tax. In the 1980's, governments tried to wean the monetary policy away from fiscal policy but they could not get rid of old budget funding habits until 1987: 1) banks and savings banks continued to be compelled to subscribe the larger part of the sovereign debt, 2) the Treasury continued to be financed unorthodoxly: loans from the Bank of Spain to the Treasury increased, the obligatory investment ratios were increased as it were the cash ratio of the banks and savings banks, 3) tax-free public debt was issued, and 4) short-term public debt placed in both public and private banks was monetised.

In fact, between 1977 and 1987 higher market interest rates led the Treasury to resort to short-term loans from the Bank of Spain to finance budget deficit. This increased the monetary base. To avoid excessive growth of the monetary supply, they resorted to liquidity drains until 1982, and afterwards to increase the banks' obligatory ratios (investment and cash ratios). First, from 1977 to 1982, the Bank of Spain issued short term debt to offset the effects of the Bank of Spain's loans on the money supply; this worsened the Bank of Spain's profits and left no monetary policy autonomy. Second, between 1983 and 1987, they used the obligatory ratios of private banks (financial repression) to control the money supply more effectively. Spain's entry into the EEC in 1986 was central to the modernisation of public debt management. Since 1987, the objectives of Treasury funding were: a) implementation of the prohibition of budget deficit financing by the Bank of Spain, established by the Treaty of the European Union, b) lengthening debt maturity while retaining a percentage of short term debt so the Treasury could benefit from drops in interest rates, c) public budget funding without any privileges, d) institutional and technical modernisation of the debt market,[34] and e) placing the debt among private and non-financial institutions.

Along this same line, we can highlight the following measures. Since 1989, the gradual reduction in compulsory investment ratio of banks in Treasury Bills began (which was 11% of the bank's liabilities). To avoid the inflationary financing of budget deficit by the Bank of Spain monetary policy independence began after Spain entered the European Monetary System in 1989. Entering the EEC demanded free movement of capital and membership to European monetary institutions. Therefore, in the 1990's, it was impracticable to default on the public debt by reducing its real value through the deficit monetisation, because of Spain's membership to the European Monetary System and then to the Euro system, but also because of the absence of money illusion on the part of both the Spanish and foreign investors. In summary, entering the European Monetary System broke off the tradition of financing public deficits by increasing the monetary base by the Bank of Spain and the banks underwriting of public debt at low interest rates, because of the disappearance of the compulsory investment ratios. Finally, the need to reduce the budget deficit / GDP ratio and to contain the growth of the debt/GDP ratio, imposed by the monetary convergence criteria of Maastricht, reduced the Spanish government's fiscal autonomy that, since 1994, cut the budget deficit and controlled sovereign debt growth, achieving the goal of entering the Euro system.

4.2. The mirage of the euro and the Eurozone debt crisis.

At the beginning of the 21st century, euro membership reduced the Spanish public debt risk premium practically to zero vis-à-vis the German bonds. Cheap credit led to enormous external indebtedness of the private sector in Spain, to finance consumption of households and real-estate investment. Financial markets assumed that Spain lacked country risk (or that it was as small as in Germany). The mirage lasted until the outbreak of the Greek debt crisis in 2010 when once again the existence of *two Europes* surfaced: rich, industrialised Central

[34] Started up in 1987 with the creation of the System of Account Entries as well as the secondary debt market development. See Comín (1996)

Europe and poor, peripheral South Europe. Since the financial markets make differentiations by large regions, classified by acronyms, Spain was immediately incorporated into the group of peripheral European countries with a sovereign debt crisis: Portugal, Ireland and Greece – the group that English speaking investors referred to as PIGS. When this happened, technically there was no sovereign debt crisis in Spain (as we have seen in the graphs). Nonetheless, the markets associated Spain with those countries that did indeed have a public debt crisis.

Since then, speculation increased risk premium in Spain (and in Italy). In financial markets prophecies and bets tend to be self-fulfilling; above all if the governments' policies convince the speculators that they are not going to defend the sovereign debt and the currency, as it was the case of the European Union. To the dismay of the European leaders, the bond investors thought that some peripheral European countries could not repay its debt and decidedly bet in favour of default with short selling and naked CDOs. This depreciated the market prices of public debt of those peripheral countries and increased their spreads thereby worsening debt burden. The confrontation between the leaders of the euro zone encouraged speculators to continue betting against the European debts (including even France). Even so, the peripheral countries', especially Greece and Spain's, history of irresponsible debt management (serial defaulters in the past) undoubtedly also weighed heavily in the rise of their risk country premium.[35]

The 2010-2011 Spanish public debt crisis confirmed Reinhart and Rogoff's theory on the effects of the economic recessions on public finances. In fact, when the 2008 financial crisis started, Spain had no public debt trouble. Quite the contrary, as we have seen, it was a model country as to meeting the Stability and Growth Pact and to keeping the budget balanced and the public debt/GDP ratio small. In 2008, Spain's fiscal situation, (and Ireland's), was exemplary. Spain (and Ireland) did not have irresponsible fiscal policy before the recession. Spain had fiscal surpluses and negligible net public debt. Actually Spain had a 31 % debt/GDP ratio far below France (60%) and Germany (53%). The economic crisis that started in 2008 however, caused a surge in fiscal deficit that, together with the contagion of the Greek crisis, pushed Spain into the spotlight of the markets. Nevertheless, as we have seen, in the

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[35] Historically, according to Reinhart and Rogoff (2009, pp. 86, 88-89), in the 19th and 20th centuries, Spain is the country that has gone bankrupt the most times and Greece is the country that has been bankrupt the longest. "Spain's defaults established a record that as yet remains unbroken" (as we have seen 18 since 1800 to 1941. Greece has spent more than half the years since 1800 in default.

case of Spain, at the end of 2010, public debt/GDP ratio was around 60.1%. However, as the recession continued this ratio was expected to grow to 87% in 2013. Even so, Spain's public debt level was not alarming.

In 2010, the Spanish economic problem was not so much public debt as it was the large foreign indebtedness of private sector, banks and real estate sector. Weighing on investors was also the uncertainty that arose from the questionable solvency of the Spanish banking system that might need public budget outlays to rescue it that would increase public debt stock as it did in Ireland. In Spain it had been the private sector which had dependency to foreign lending. What worried the markets and the rating agencies was the high private external debt/GDP ratio that, in 2010, was 170%. This large total external debt together with the fragility of the Spanish financial system, the high rate of unemployment, the expectations of prolonged economic stagnation, the fall of real estate assets prices and the public debt prices could create a fund squeeze that would weigh the growth of the Spanish economy down even more (which, at the same time, would prevent reducing budget deficit and lowering the level of sovereign debt).

In reality, Spain's recession began, as did that of the other peripheral European countries, (except for Greece), not because of budget deficits and sovereign debt crisis but rather because of low competitiveness. Spain was an uncompetitive economy. Between 1999 and 2007, the unit labour costs in Spain *vis-á-vis* Germany had grown substantially. That explains Spain's external deficit and its huge private sector external debt – much higher than the public debt. Uncertainty was high for investors because of the economic crisis. In the Fall of 2011, Spain, and Europe, was still stranded in the recession, and this would worsen the public deficit even more. If Spain did not manage to get out of economic recession it would have serious problems in avoiding an explosion of the level of public debt caused by the economic and financial crisis. The expected economic growth was very law and this would hinder the ability to generate additional tax revenues. The worst of it was that there did not seem to be a way out of the crisis; nationally, because of the harsh fiscal adjustments that Spain would have to make all the way up to 2016; and outside the country, because the rest of the European Union countries were also carrying out tough fiscal consolidation policies. Fiscal austerity would paralyse the European economy which would thwart solving the unemployment and the sovereign debt problems.

In any case, the 2011 debt crisis was more a European debt crisis than a Spanish debt crisis. The sovereign crisis in part stemmed from Spain's membership to the euro, which had left the Spanish government without monetary and fiscal sovereignty. The March 2011 Pact for the Euro focused on solving the peripheral countries' fiscal imbalances through imposing tough fiscal consolidation plans and even constitutional amendments to prevent budget deficits in the future (implemented by Spain). Again, in December of 2011, European Council agreed a deal over Eurozone fiscal rules, to enhance fiscal disciplinary regime. However, it was evident, that except for the Greek case, fiscal imbalance had not been the cause of the peripheral debt crisis nor of the euro crisis. The strategy of Germany and France meant charging the taxpayers in the peripherals countries costs for the bad banking practices in Germany and France. The fiscal variables did not explain Spain's larger country risk premium compared to other EU countries like the United Kingdom. Until 2014 the public debt/GDP ratios would be lower in Spain than in the United Kingdom. However the United Kingdom had the autonomy to carry out an economic policy supported by the Bank of England's low interest rates and the devaluation of the pound. Furthermore, the Bank of England's autonomy allowed it to guarantee a maximum spread level (by open market buying of British sovereign debt) and to increase short term liquidity for the banking sector in favourable interest and maturity conditions. An explanation for the Spanish debt's higher interest rate lay in its membership to the euro which deprived it of economic policy sovereignty without giving Spain the advantages of a non-existent fiscal union, (that would allow Eurobonds to be issued and permit the richer countries to rescue those countries with a public debt crisis), and the reluctance of the ECB to support the European sovereign debts in the open markets. Spain could neither devalue nor reduce interest rates because it belonged to the Euro system, and the ECB implemented a restrictive monetary policy favourable to Germany and the Northern countries. Moreover, membership to the euro exposed Spain to the contagion effect of the peripheral countries' public debt crisis. The Euro system put Spain under a restrictive monetary policy, decreed by the European Central Bank, (in April 2011 the European Central Bank raised interest rates; only in the Fall, it lower them), which would delay Spain's exit from the economic crisis, consequently preventing reduction of the public deficit. Finally, the European Central Bank's loans to Spanish banks were at higher interest rates that were promptly demanded at maturity. In summary, the autumn 2011 Spanish public debt crisis did not so much arise from the fiscal ratios as from the poor expectations on the exit from the economic crisis, delayed by the Euro system's restrictive policy.

However, the public debt crisis also stemmed from the Spanish economy's structural problems. First of all, it was foreseeable from the enormous private external debt that, sometime in the future, Spain could find itself with a serious refinancing problem to obtain liquidity. This perspective could scare off foreign capital, making it difficult to roll over Spanish public debt at maturity dates. Secondly, the uncertainty about the real situation of the banks and savings banks led investors to believe that their rescue would require a lot of public aid which would increase the public deficit and therefore, the size of the debt. Thirdly, there was doubt about whether the Spanish central government would control the deficits and the debt of the Autonomous Communities and the Municipalities. Fourth and finally, investors suspected that Spain would not be able to increase her international competitiveness, and consequently, could not lower trade deficit and unemployment. The magnitude and persistence of both would worsen the debt crisis[36].

The debt crisis in Spain, (peripheral Europe in general), from 2010 reminds us of those that developing countries suffered in previous decades. It is difficult to know a country's safety threshold or level of tolerance (debt/GDP ratio that supposes a high risk of default on debt), but a lot depends on its previous history of default on debt and the inflationary processes. According to Reinhart and Rogoff (2009), the worse the history (of being a defaulter) the less the capacity of governments to tolerate the debt. That is, to continue borrowing in the international markets without increasing the spreads and without creating a crisis of confidence among the investors. Although it seems like a paradox, the countries that have a higher "debt default risk" are precisely the ones who get the most into debt in the international markets, in absolute terms, and above all, in relation to foreign currency earnings from exports, (which are those that will allow servicing foreign debt).

At the beginning of 2012 the reason explaining the high Spain's public bonds spread against Germany was not the actual level of outstanding public debt but the worsening of the economic recession and the huge needs of recapitalization of the country's banking sector, whose restructuring had been delayed with respect to other European countries. Sooner or later the Spanish government had to bailout the banks and savings banks, whose assets (mortgages and public bonds) were plummeting because of the economic crisis. They had to be recapitalized to reach the minimum capital ratio (9%) stipulated by the European Banking Authority as well. The almost inevitable banks bailout would worsen the Spanish budget

[36] Wolf (2010).

deficit and more debt would have to be issued to fund it. The high scale of banks bailout would bring the budget deficit and the public debt /GDP ratios to unsustainable levels, as it happened to Ireland in 2009. The austerity measures imposed by the European Commission (tax rises and spending cuts) would deep the economic recession in Spain, deteriorating even more the budget balance. As it happened in Greece, Portugal and Ireland, this European restrictive fiscal policy would be self-defeating. Without economic growth and an improvement in the competitiveness of the Spanish economy, the level of public debt would rise and eventually Spain sovereign would need a bailout by the European Commission, the European Central Bank and the International Monetary Fund, as it had been the case of other Eurozone peripheral countries. Only a shift, as proposed by some neokeynesian economists, in the European Commission and European Central Bank's fiscal and monetary policies could save the Spanish State from falling into another deep public debt crisis[37].

Countries that incurred repudiations and recurrent defaults of foreign debt acquired a greater "debt intolerance," meaning that they reached default situations with low public debt/ GDP ratios. Several of the defaults that took place between 1970 and 2008 occurred in countries with a level of external debt that was below 60% of GDP. Debt intolerance is determined by domestic institutional factors such as political corruption, but also by international factors, such as the pro-cyclicality of capital flows into underdeveloped countries. In the economic crises, imports of capital stopped flowing into the developing countries, so their governments were forced to implement strict fiscal discipline thereby exacerbating economic depression. The reason was that these countries could not continue borrowing to finance fiscal stimulus policies, because international investors knew that raising budget deficits would lead those countries, at the threshold of intolerance of public debt that would prevent them from servicing it, thereby leading them to default. Therefore, according to Reinhart and Rogoff, the international financial markets and rating agencies question the financial solvency and ability to repay the debt of those developing countries at debt/GDP levels well below those of advanced economies. Even with better fiscal statistics, the international markets attribute increased default risk to countries with poor historical records in managing debt and therefore, demand higher interest rates. This applies, of course, to the debt crisis of the Eurozone peripheral countries, including Spain since 2010.

[37] Roubini and Greene (2012), M. Wolf (2010), Krugman (2012) and N. Wolf (2012)

Conclusions

As we have seen, the Spanish case confirms the main hypothesis of Reinhart and Rogoff (2009) about international debt crisis. This paper highlights the following findings.

1) With regard to the time profile, short term borrowing enhanced the risk of a debt crisis, when debt cannot be rolled over. Long term borrowing used to carry out a higher interest rate than short term. Investors were less willingly to long term lending when there was a liquidity crisis. The governments found them compelled to roll over its short terms debts. In the XIX century much of the Spanish debt was irredeemable and external. In the 20th century the situation reversed and the domestic and redeemable debts were the most important.

2) In relation to debt defaults, the insolvency problems arose when the governments were unwilling or unable to repay de debt over the long term. After experiencing large capital inflows Spain tended to undergo a debt crisis. As other serial defaulter countries, Spain tended to over borrow, leaving the country vulnerable to debt crisis. Once deb was restructured, Finance Ministers were quick to releverage. In Spain, most outright defaults ended up being partial defaults. According to Reinhart and Rogoff (2009) sovereign debt level became unsustainable when it rose above 60-90 % of GDP[38]. The level of tolerable public debt depends on several factors: the existing level of debt, the current public budget position, the level of interest rates, the debt maturity profile, the weight of external and short term debt, and the ability of the government to generate additional tax revenues, which depends on the features of the tax system and the actual and expected rate of economic growth.

3) As to inflation tax, default trough inflation became commonplace when fiat money displaced coinage. Shut out from international capital markets and facing collapsing revenues, Spanish governments had resorted to the inflation tax, because they did not restrain their spending. The institutional changes allowed Spanish governments to abuse of the monetary financing of budget deficit, which led to inflation. Governments defaulted on domestic debt through high and unanticipated inflation. Inflation represented a form of partially defaulting on government liabilities.

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[38] Actually, Reinhart and Rogoff (2009) point out that threshold of public debt intolerance "depend heavily on a country's record of default and inflation". C. Reinhart, V. Reinhart, and K. Rogoff (2012) characterize "major public debt overhang episodes" by "public debt to GDP levels exceeding 90% for at least five years".

4) As of 1852, financial repression was used in Spain as a tool to expand domestic public debt markets. Banks and savings banks lent a large amount of their assets to the government, which thereby enjoyed a lower interest rate than in a liberalised capital market.

5) In regard to the consequences of debt crisis, defaults endangered the creditworthiness of Spanish Finance Ministry. To solve debt crisis the governments were forced to follow disciplined fiscal policies, in order to restore the reputation as international borrower.

Finally, as to the origins, historically debt crises in Spain reflect a rapid increase of the public debt as occurred in the politically turbulent periods of the 19th century, (Progressive Two Year Period, Six Year Democratic Period), or during the wars, (Cuba, Morocco, Civil War). On the contrary the fiscal crises of the democratic period were triggered by economic crises. The economic recession of the 1970's was worsened by the political transition. And debt crisis began to be triggered by the establishment of the Welfare State, through the progressive income tax and the unemployment benefits. Before the democratic reforms of 197-1978 budget revenues and public spending were inelastic to GDP, so economic recessions did not produce debt crisis. On the contrary, the 1993 debt crisis, and above all, the 2008 debt crisis, were generated entirely by economic factors, due to the consolidation of the Welfare State. In any case, this fiscal crisis that started in 2008 did not become a debt crisis until May 2010, triggered by the contagion from the Greek crisis, although the size of the Spanish debt was small.

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