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Abstract

Two centuries of Greek debt crises highlight the pitfalls of relying on external financing. Since its independence in 1829, the Greek government has defaulted four times on its external creditors, and it was bailed out in each crisis. We show that cycles of external crises and dependence are a perennial theme of Greek modern history – with repeating patterns: prior to the default, there is a period of heavy borrowing from foreign private creditors. As repayment difficulties arise, foreign governments step in, help to repay the private creditors, and demand budget cuts and adjustment programs as a condition for the official bailout loans. Political interference from abroad mounts and a prolonged episode of debt overhang and financial autarky follows. At present, there is considerable evidence to suggest that a substantial haircut on external debt is needed to restore the economic viability of the country. Even with that, a policy priority for Greece is to reorient, to the extent possible, towards domestic sources of funding.

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1. Introduction

The history of Greece is a narrative of debt, default and external dependence. In 1952, a Greek-Canadian historian noted that since their independence, "the Greek people have had to bear a crushing foreign debt that has literally sucked their lifeblood" (Stavrianos 1952, p. 25). This graphic statement could well have been written 60 years later, in 2012, when Greece was in the midst of its fourth sovereign debt crisis. Or it could have been written 60 years earlier, on the eve of the second sovereign default. This paper documents the recurring patterns of sovereign default in Greece with the aim of gaining insights into possible solutions to the current crisis. The financial history of Greece may also serve as a broader precautionary note on the pitfalls of relying heavily on foreign saving and external debt.

Our main conclusion is that the composition of Greek sovereign debt (external versus internal), and not just its levels, played a central role in explaining the country's historical default episodes, as well as its current predicament. Over the past 200 years, the tilt toward foreign borrowing in Greece (by the public and private sector) has resulted in repeated crises and sudden reversals of capital flows (sudden stops). We highlight that the consequences of the boom-bust cycles in external borrowing were not only economic, but also political. The defaults resulted in prolonged bouts of heavy political interference from abroad, mainly aimed at assuring the repayment of bailout loans. The events since 2010 are neither new nor unique in Greek history.

There are relatively few papers on the unfolding Greek crisis that take a longer historical perspective. We focus on Greece in the long-run, but our data and archival work is part of a much broader research agenda on the history of sovereign lending, default and haircuts, which covers all debtor countries over the past 200 years (Meyer, Reinhart and Trebesch 2015).

The evidence we present reveals striking historical parallels between the past and the present. Most surprising are the close similarities in the crisis resolution process. For example, we find that Greece has been bailed out many times before, coupled with heavy conditionality and externally-imposed adjustment programs. We also find that earlier Greek defaults have been similarly protracted and that much of the bailout money was used to service old, privately held debt. In each crisis, the country's external creditors (both official and private) initially refused to accept haircuts, but agreed to them eventually, sometimes after decades of fruitless negotiations and failed interim agreements. These insights speak to the current debate on how to address Greece's current debt overhang.

More generally, the role of external versus domestic borrowing remains comparatively understudied in connection to economic crises. Reinhart and Rogoff (2009) take up this theme when discussing the literature at large, but also in the case of Greece the debate has focused on other issues, such as debt sustainability, contagion effects, and on the need for reform and the associated political economy problems.[1] The fact that the ongoing crisis is very much an *external* debt crisis has been largely overlooked. We concur with Gros (2013) and Sinn (2014), that the crisis in periphery Europe is not so much a crisis of public debt, but rather a crisis of external debt – and involving all the problems that come with an external crisis (in particular sudden stops, balance sheet effects and cross-border disputes between creditors and debtors). In this regard, the analysis in Eichengreen et. al. (2014), which compares the Eurozone crisis to Latin America's lost decade in the 1980s, is exactly on point.

We realize that our message that external debt implies important risks stands in contrast to recent calls to unravel the "deadly embrace" between governments and domestic banks, mainly by reducing the home bias in sovereign debt holdings (e.g. Reichlin and Garicano, 2014, Corsetti et al.

[1] On contagion see Mink and De Haan (2013), on debt sustainability see Schumacher and Weder di Mauro (2015) on the political economy see De Grauwe (2013) and Ardagna and Caselli (2014), and on crisis resolution see Zettelmeyer et al. (2013), Bulow and Rogoff (2015), Feld et al. (2015) and Mody (2015).

2015). Yet bank portfolios were almost entirely domestic from 1945 to 1980, the period in history with fewest banking and debt crises (Reinhart and Rogoff, 2009).[2] Also, the most prosperous and financially stable period in Greek history, between the 1950s and 2000, was a period with heavy home bias and a comparatively low share of external debt.[3] The same is true for other countries as well. Periods with external dependence were often periods of volatility and crises, e.g. in Latin America over much of the 19th and 20th century, but also in places like China, Portugal or Spain, until these turned inward in the second half of the 20th century.

In the remainder of this paper, we summarize the main insights gained from our historical Greek expedition. Section 2 presents a conceptual discussion on why the composition and sources of financing matter, in particular in crisis times when external financing is notoriously vulnerable to sudden stops.[4] In part 3, we document that Greece's dependence on foreign savings has been both significant and persistent over the past 200 years.[5] This is evident in the structure of its borrowing, in the country's external position (current account), and in its history of being a large net recipient of foreign grants.

In part 4, we summarize some dire consequences of Greece's reliance on foreign finance. We focus on the four episodes of external default (and sudden stops), the protracted crisis resolution in three of these cases, and the heavy political interference from the creditor countries and externally imposed adjustment programs in every case. Part 5 addresses the issue of external validity and briefly discusses the pitfalls of external dependence in other countries. In the concluding section we focus on the current situation and suggest that a significant haircut on the debt stock is needed (i.e. on the *external* debt, as sovereign debt is almost entirely in the hands of foreign official creditors).

2. External Dependence: Benefits, Costs and Measurement

Access to external capital markets can deliver many benefits for capital-scarce countries, in particular the possibility to smooth consumption and to use foreign funding for productive investments at home. External debt often carries low interest rates and is readily available, especially in times of high global liquidity. It can therefore be an important complement for more expensive sources of domestic finance (for a longer discussion see IMF and World Bank 2001).

But these potential advantages of external borrowing may come at a high cost, given the fickle nature of foreign saving.[6] These risks usually become most apparent during economic crises.

This section briefly discusses why the source of financing matters and why, in our view, external financing has "sharper teeth" than its domestic counterpart.[7] For brevity, we do not attempt a comprehensive analysis of the topic, but focus on five key perils of external borrowing for small open economies.

[2] That bank portfolios were domestic does not say anything about their public versus private composition.
[3] The empirical evidence is informative on this score. Gennaioli et al (2014) find that a high share of domestic holdings reduces sovereign default risks, while Catão and Milesi-Ferreti (2015) show that a high levels of net foreign liabilities are a good predictor of external crises. Asonuma et al. (2015) conclude that a strong home bias can have positive implications for public debt sustainability.
[4] See Calvo (1988).
[5] See Lazaretou (2005a) for an insightful discussion of the historical context.
[6] The term foreign saving is used interchangeably with capital inflows.
[7] This stands in contrast to recent theory papers like Guembel and Sussmann (2009) and Broner et al. (2014) who effectively assume that domestic creditors have "more teeth" since they can punish their own government in elections. We agree with Drazen (1998) that the direction of discrimination is far from clear-cut and that foreign creditors can also exert political influence. See also Farhi and Tirole (2014) and D'Erasmo and Mendoza (2015).

Our aim is to provide a broad picture on external dependence. We therefore study indicators of external financial liabilities, on sources of government revenue, and proxies for macroeconomic imbalances. In particular, we focus on the level and composition of debt (internal and external, public and private)[8], the current account, transfers and grants from abroad, the "inflation tax", and the scope of domestic savings. We also look at external political pressures and zoom in on changes in external dependence before and after crisis episodes.

On measurement, it is important to note that the lines between what is considered domestic and external debt has become more fluid in the recent wave of financial globalization (largely post 1980s or 1990s, see Gelpern and Setser 2004). External debt, historically, was usually (i) issued under foreign law, (ii) denominated in a foreign currency (usually the creditor's), and (iii) held by nonresidents. Conversely, domestic debt was an entirely domestic affair. In the modern context, as we shall see in the case of Greece, what is domestic in terms of currency or governing law need not be domestic if we look at who holds the debt. Relatedly, in the Eurozone, external debts were commonly perceived as only those owed to countries outside the currency area. However, since the crisis of 2008-2009, within-Eurozone liabilities are now effectively external if they are held outside a country's geographical borders. We will be as explicit as possible to avoid confusion on this important subject.

2.1. Sudden stops and external defaults

An obvious first-order risk associated with external debt is that of external default (a payment suspension or the restructuring of old debt at terms less favorable to the creditors). While causality is hard to establish, it is widely recognized that sovereign defaults are associated with lower economic growth, lower investment, long periods of financial autarky, and in numerous cases high inflation.[9] Moreover defaults often go hand in hand with (or are the consequence of) a sudden stop in capital flows. As documented by Calvo and Reinhart (2001) and Calvo et al. (2008) sudden stop episodes are a recurring feature of countries borrowing abroad, and, like defaults, they are associated with severe economic downturns (see also Mendoza 2010).

2.2 Balance sheet effects

A second peril of external borrowing is rooted in the currency mismatch between tax revenues, which are typically in domestic currency and importantly connected to domestic economic activity, and debt servicing outlays in foreign currency. In these cases, currency depreciation implies that the cost of debt servicing increases in domestic currency (or in terms of the home goods). Since debt crises are intimately connected with currency crises, self-reinforcing vicious spirals are commonplace.[10] This balance-sheet effect can take extreme forms, simultaneously setting the stage for deepening sovereign solvency crises and banking crises (as private sector balance sheets suffer the same fate as those of the public sector).[11] The Argentine crisis of 2001 is illustrative. In 2001, the total gross (public plus private) external debt of Argentina as a percent of Gross National Income was 47%, according to the World Bank. When Argentina decoupled from its long-standing peg to the US dollar it more than doubled, to 125%. As total gross external debt for Greece is over 200% of GDP, balance sheet effects in the context of a Greek exit from the euro are on a different scale altogether.

2.3 The inability to "tax" foreign currency debt

While it is often a challenge for governments to tax domestic residents, it is even more

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[8] We repeatedly stress public plus private debt, as what are private debts before a crisis often become public debt after the crisis, as noted by Diaz Alejandro (1984).
[9] See Panizza et al. (2009), Reinhart and Rogoff (2009), Tomz and Wright (2013), Aguiar and Amador (2014).
[10] See Dreher et.al. (2006).
[11] See Balteanu and Erce (2014), for example.

difficult for governments to "tax" foreign investors, be it by spurring inflation or via legislation that reduces the de facto debt servicing costs. Moreover, it might be altogether impossible to tax *official* foreign creditors, as debtor governments usually lack the political or economic leverage to do so (as the unfolding Greek crisis highlights). The only mechanism to impose burden-sharing and extract relief from external creditors is an outright default and subsequent "haircuts" via negotiated restructurings. It is well-known that external creditors typically resist this outcome for as long as possible, even if a default has all the features of an "excusable default" in the spirit of Grossman and van Huyck (1988), due to, for instance, a major external shock. External debt is and remains predominantly a non-state contingent claim that is rarely forgotten. As Meyer et al. (2015) document, outright repudiations are comparatively rare in the past two centuries. In contrast, the government has more options to extract relief when the debt stock is domestic. Reinhart and Sbrancia (2015), for example, quantify how financial repression acts as a tax on domestic currency debt, thus helping to reduce the debt burden. As to indicators, it is helpful to look at the inflation or financial repression tax relative to other revenue sources.

2.4 Asymmetric "crisis shocks" to debtors and creditors

A more subtle difference between domestic and external debt is the fact that foreign creditors usually have less "skin in the game". When a country enters a severe crisis, domestic creditors have an interest in quick crisis resolution, since they also bear the consequences of a protracted economic downturn that may erode both their income and their wealth (via asset price revaluation, increased taxation, among other channels). In the end, they face the same "shock" or economic climate as their own government. This is not the case for foreign creditors. The economic depression in Greece of the past few years accompanied a solid economic rebound in Germany. Latin America imploded through much of the 1980s while the US recovered smartly from the 1982 recession. Absent significant economic contagion from debtor to creditor, the incentives to delay crisis resolution are, more often than not asymmetric. Relatedly, governments have limited scope to pressure foreign creditors into a negotiated settlement and they have a much harder time applying regulatory pressure and moral suasion on foreign creditors. By contrast, Sturzenegger and Zettelmeyer (2007) and Erce (2013) show how governments have successfully resorted to "moral suasion" and regulatory pressure to coerce domestic debt holders to agree to debt restructuring.

On a more speculative note, this asymmetry of shocks and incentives may help explain the historical pattern of delayed crisis resolution and protracted disputes between governments and their foreign creditors. It may also shed light on why external defaults have tended to last longer than domestic ones, as documented in Reinhart and Rogoff (2009). Another illustration of how protracted the crisis resolution with foreign creditors can become is the recent wave of sovereign debt litigation by holdout creditors, who adopt a variety of legal tactics to force the government to fully repay (see Schumacher et al. 2014 for an overview). Disputes tend to be less fierce when it comes to domestic creditors, although these might of course take political steps to push a defaulting government out of power (Broner et al. 2010).

2.5 External political interference

An often overlooked peril of external borrowing is that it often arrives with heavy political baggage that may compromise a country's sovereignty. External borrowing during a boom has often been ended with external political interference during and after the debt crisis. The most drastic examples are military interventions by creditor governments that were partly aimed at enforcing debt repayment, as in the case of Venezuela 1902. Another type of such "Supersanctions" (Mitchener and Weidenmier 2010), was the establishment of foreign financial control, as happened in Egypt and the Ottoman Empire in the late 19th and early 20th century, as they became partly administered by foreign bureaucrats and lost control over their fiscal policy for decades (see also Tomz 2007).

There are also many types of less martial but nonetheless powerful forms of foreign political interference that are linked to foreign indebtedness. A common variety is the conditionality attached to the granting of rescue loans, e.g. by the International Monetary Fund and its predecessor the League of Nations, as well as conditional aid flows. Political demands in exchange for debt relief has also been another vehicle for foreign political influence, which played a role in former Eastern Bloc countries, such as Poland in the mid-1990s, or in Latin American countries in the mid-1980s and early 1990s. History is filled with countless examples in which creditor governments took advantage of foreign debt overhang situations as a vehicle to pursue their strategic and economic interest abroad (Feis 1930, Fishlow 1989, Frieden 1989). Arguably, the developments in the Eurozone crisis of recent years are a modern manifestation of foreign interventionism.

3. Greece's Dependence on External Savings: A 200 Year Overview

In this section, we examine the Greece's past and present experience with economic crisis, debt, and default experience in light of the previous discussion on external dependence.

3.1. Data preliminaries

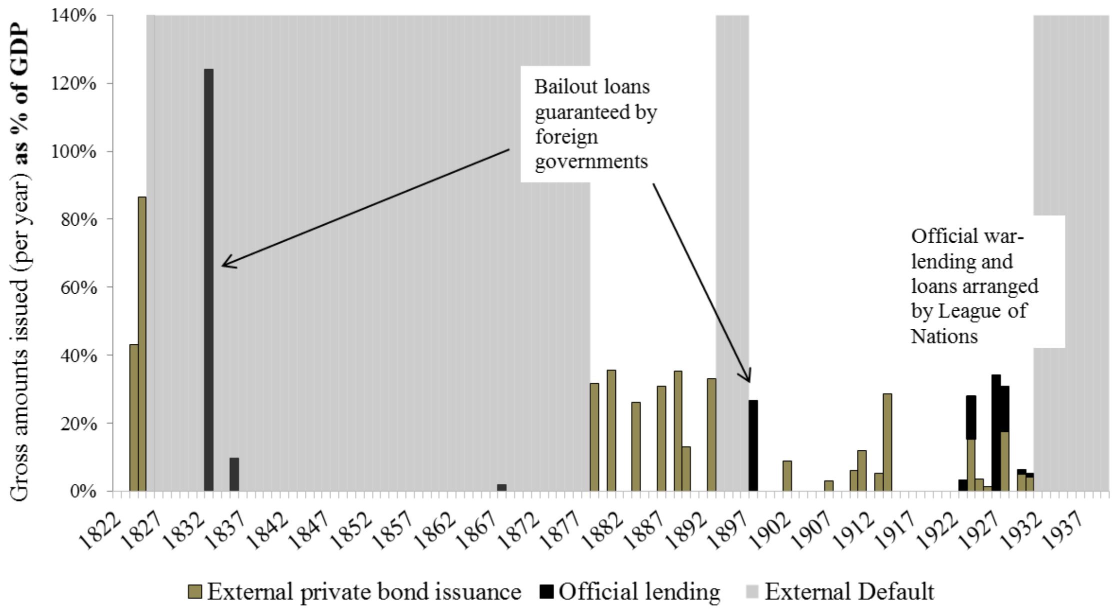
We start by with long time series of government debt and its breakdown into domestic versus external debt, as well as dating of all external credit events (defaults and restructurings) since its independence, expanding earlier work by Reinhart and Rogoff (2009) and Reinhart (2010). Second, we collected bond by bond issuance data using historical investment reports such as the Moody's Yearbooks, Fenn's Compendium, Kimber's Records, a paper by the IBRD (1954) and the reports by creditor organizations of the time, in particular the London-based Corporation of Foreign Bondholders (CFB) and the US-based Foreign Bondholder Protective Council (FBPC). The data coverage on Greek bond issuance was both extensive and well documented with considerable overlap across sources, so that a fairly complete picture of gross borrowing from the rest of the world for the period 1824-1940 emerges. In a third step, we gathered data on Greece's current account (from the 1920s onward), private external debt, domestic saving, post-World War II foreign aid flows, as well as the details of on Greece's recent sovereign borrowing. Data on the sources and composition of government revenues and expenditures, inflation, exchange rates, output, and the monetary aggregates (to estimate revenues from the inflation tax) span the 1830s to the present.

3.2. External debt

The main insight emerging from this archival work is that Greece has always relied heavily on external borrowing. This can be seen in Figure 1, which shows gross external borrowing amounts as a percent of GDP for each year between Greece's Independence War of the 1820s until WW2 (the shading indicates years in default). Lending was mostly from private foreign investors in London and New York (bars with light shading). However, during crisis times, the government also became a large-scale borrower from official lenders, in particular from foreign governments (bars with dark shading). Two main borrowing booms stand out. The first are the very large loans of 1824 and 1825, which were raised in London to finance the independence war against the Ottoman Empire. They imply that Greece started off with an indebtedness above 100% of GDP even before gaining independence.[12] The second lending boom occurs after the crisis exit in 1878 and continues until the renewed default in 1893. Within a decade, Greece borrowed more than 100% of its GDP from abroad. Once private markets closed, the country continued to borrow from official sources, thus replacing debt on private balance sheets with government-to-government loans.

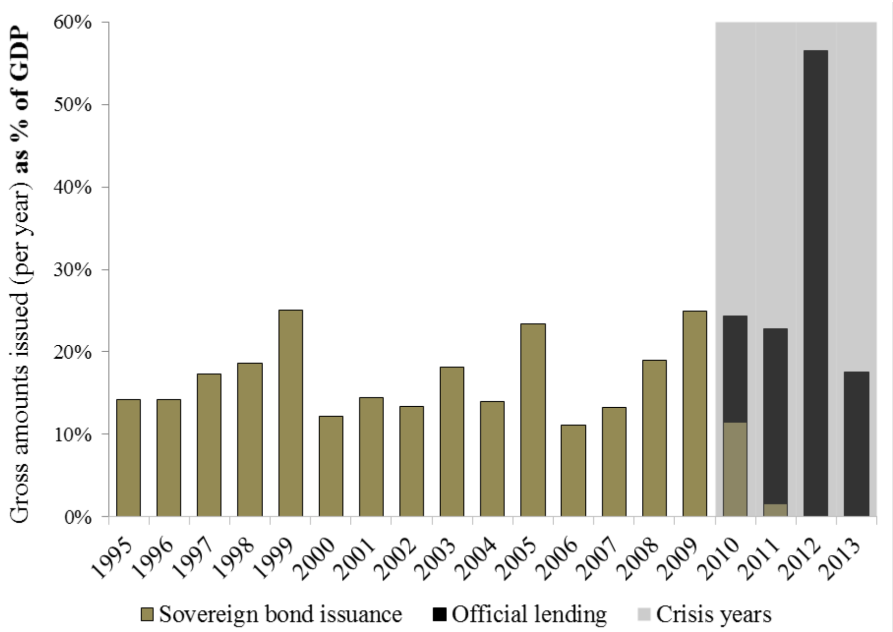
[12] If the London loans of the 1820s (which were already in default) were combined with the loan of 1833, total indebtedness would have exceeded 200% of GDP in that year.

Figure 1. Greek external borrowing before WW2 (as a percent of GDP)



Sources: Meyer, Trebesch and Reinhart (2015) and sources cited therein, in particular Corporation of Foreign Bondholders (various annual reports), Haritakis (1933) Economic Yearbook of Greece, Moody's Manual of Investments (various years), IBRD (1954) "External Debt of Greece", Kimber's Records (various years).

Figure 2. Greek sovereign borrowing after 1995 (as a percent of GDP)



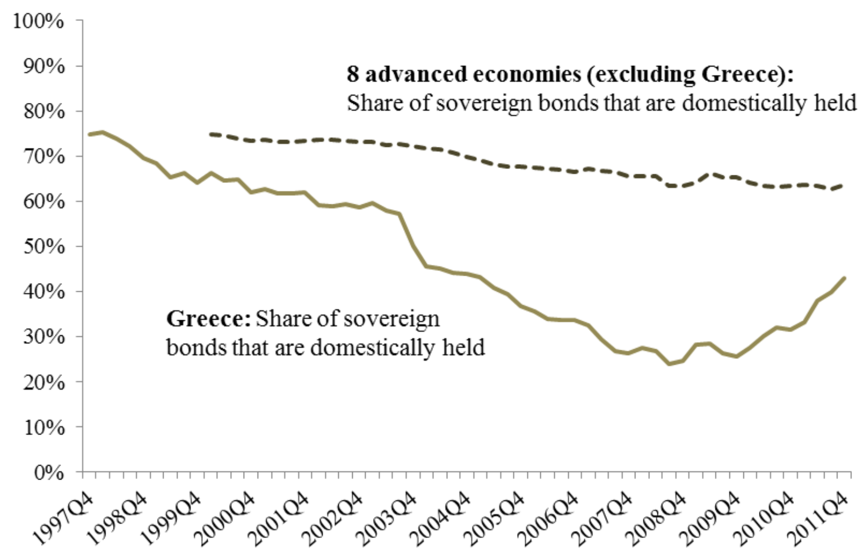
Sources: Bloomberg and Dealogic for data on sovereign bond issuance in private markets (excluding T-bills). For official lending (IMF and Eurozone loans) see European Commission (2014) Table 9.

In recent decades, the borrowing patterns look strikingly similar to the historical picture. Figure 2 summarizes gross sovereign borrowing between 1995 and 2013, using data from Dealogic, Bloomberg and from the European Commission. Sovereign bond issuance in private markets often exceeded 20% of Debt/GDP annually between 1995 and 2007, and the debt/GDP ratio remained at 100%, despite high rates of economic growth. After 2010, Greece lost access to private bond markets and again turns to the official sector, with Eurozone rescue loans almost entirely substituting the bonds held by private creditors.

A difference between Figures 1 and 2 is that much of the sovereign borrowing in recent decades has been issued under domestic (Greek) law and in domestic currency. Indeed, data by Reinhart and Rogoff (2009) show that the share of domestic borrowing in total Greek sovereign borrowing sees a strong increase after WW2. With the accession to the Eurozone, Greek debt and revenues were both denominated in the same currency—euros. This would argue in favor of viewing almost the entire stock of Greek debt in the 2000s as domestic. At the same time, Greece did not have the option of relying on the inflation tax to liquidate the value of its debt, as monetary policy is outsourced to the European Central Bank. Moreover,

The picture changes for the 1990s and 2000s once we measure domestic debt based on who holds the debt—that is, when looking at the creditor base. A significant share of what appears to be domestic debt is by this measure external. This can be seen in Figure 3, which uses recently compiled data by Andritzky (2012) on the share of sovereign bonds held by non-residents.[13] It is remarkable that the share of Greek bonds in the hands of domestic holders has declined from above 70% in the late 1990s to about 30% prior to the crisis of 2009. Part of this drop can be attributed to a general trend, but Greece shows a much more pronounced decline than other advanced economies and also other Eurozone periphery countries such as Spain, Portugal, or Italy.

Figure 3. Greece and other advanced Economies: sovereign bonds held domestically, 1997-2011



Sources: Andritzky (2012) and author’s calculation.

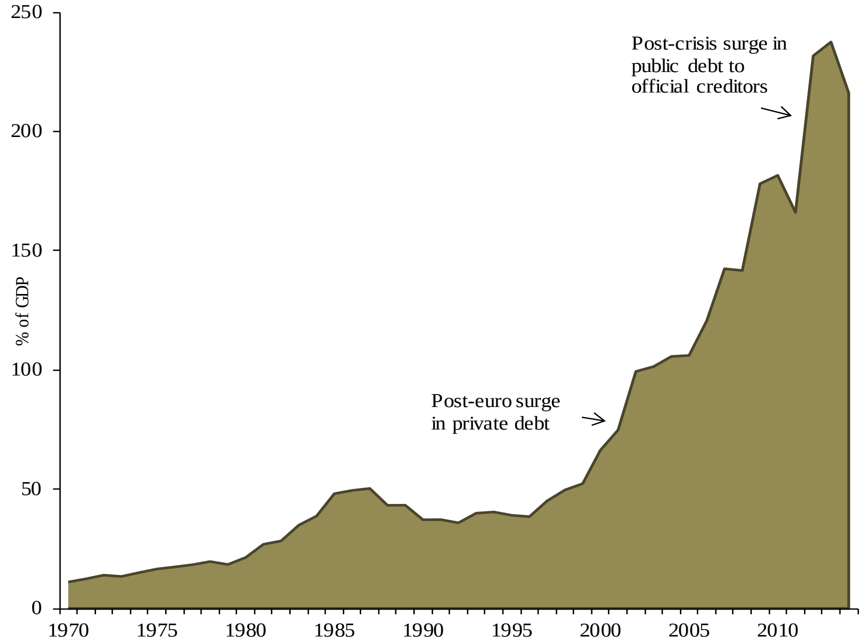
Notes: The group of advanced economies includes Australia, Canada, Germany, Italy, Japan, Spain, United Kingdom and United States. The figure shows the share of short-term and long-term debt securities issued by the government that are domestically held, i.e. those not held by the “Rest of World (non-residents)”.

This result is corroborated in Figure 4, which shows the development of total (public plus private) external debt of Greece as a percent of GDP since 1970 using data from Lane and Milesi-Ferreti (2007) and the Quarterly External Debt Statistics. After Greece joined the Euro, the country more than doubled its level of external indebtedness from about 75% to GDP in 2001 to 180% in 2010. [14] The increase after 2001 is almost entirely due to the private sector, which took advantage of declining interest rates in Euro-denominated bonds. The jump after 2011 is due to the large-scale Eurozone rescue loans.

[13] See also Arslanalp and Tsuda (2014) for a comparison of Greece to other individual advanced economies.
[14] The beginning of Greece’s external credit boom is actually earlier than that, namely in the early 1980s. Alogoskoufis and Christodoulakis (1990, p. 1) explain that “one of the most significant developments of the 1980s in Greece appears to have been the spectacular rise of external debt.”

The effects of financial liberalization and Eurozone membership on the private sector's ability and willingness to take on external debt are fairly well understood and not particularly controversial (see e.g. Brissimis et al. 2010). However, it is possible that another catalyst contributing to the debt build-up during this time came from the loss of the inflation tax. Inflation convergence was part of the ticket to the euro. For Greece, where tax collection has historically been problematic, the inflation tax has been a non-trivial method of eroding domestic debt since World War I, as Figure 5 highlights.[15] If a revenue loss is not compensated for elsewhere in the budget, the net result is more debt.

Figure 4. Total (public plus private) external debt, percent of GDP, 1970-2014

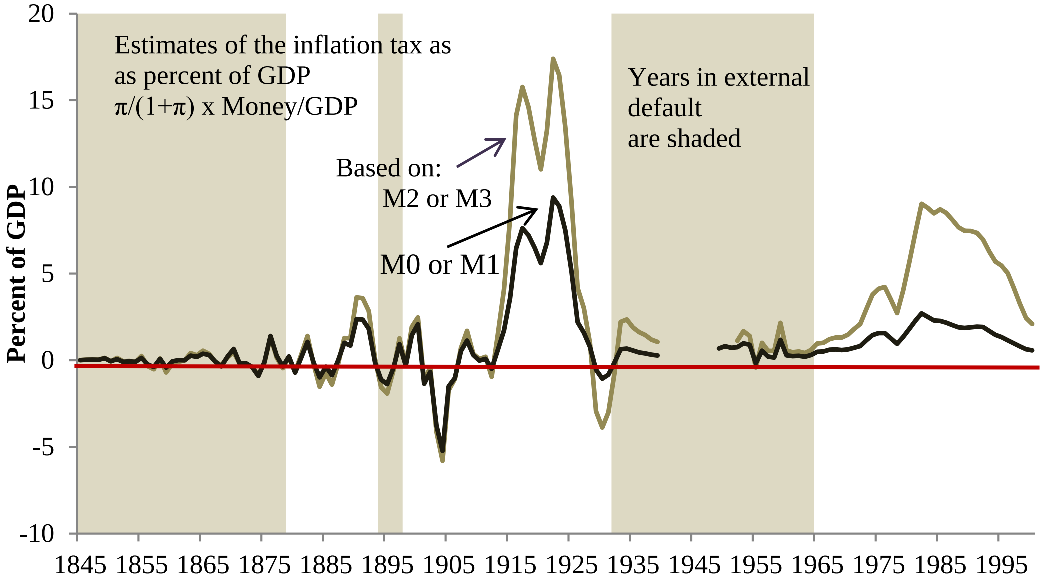


Sources: International Monetary Fund, *International Financial Statistics* and World Economic Outlook, Lane and Milesi Ferreti (various), Reinhart and Rogoff (2009), and World Bank, *Quarterly External Debt Statistics.*

In sum, the recent boom in borrowing has many features in common with previous Greek surges in borrowing, both in the high levels of debt/GDP that came with it, but also because much of the debt was owed to external creditors. It is striking that each of these *external* debt booms in Greece ended in a painful bust and default, be it in the 1820s, the 1880s, the 1920s but also in the 2000s (see also Appendix Figure A1).

[15] The disappearance of the inflation tax from the 1940s until the 1960s owes to the fact that a hyperinflation during the latter part of World War II wiped out financial intermediation in the country in the decades that followed. To put his episode in perspective the currency conversion at the end of the hyperinflation was at 50 billion to one. See Lazaretou (2005b) for a historical perspective of Greek monetary history.

Figure 5. Pre-Euro revenues from the inflations tax, Greece 1845-2000



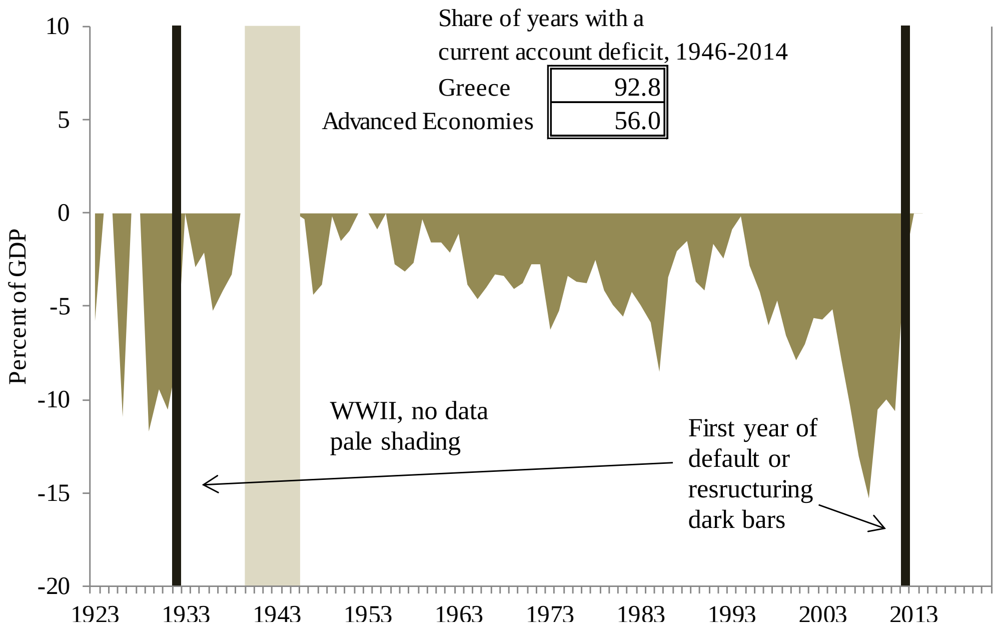
Sources: International Monetary Fund: International Financial Statistics and World Economic Outlook, Mitchell International Historical Statistics (various), Reinhart and Rogoff (2009), Reinhart and Trebesch (2015), South-Eastern European Monetary History Network (2014), Stone (1999).

Notes: The estimate based on M0/M1 and M2/M3 can be interpreted as the lower and upper bound, respectively.

3.3. Current account, savings and grants

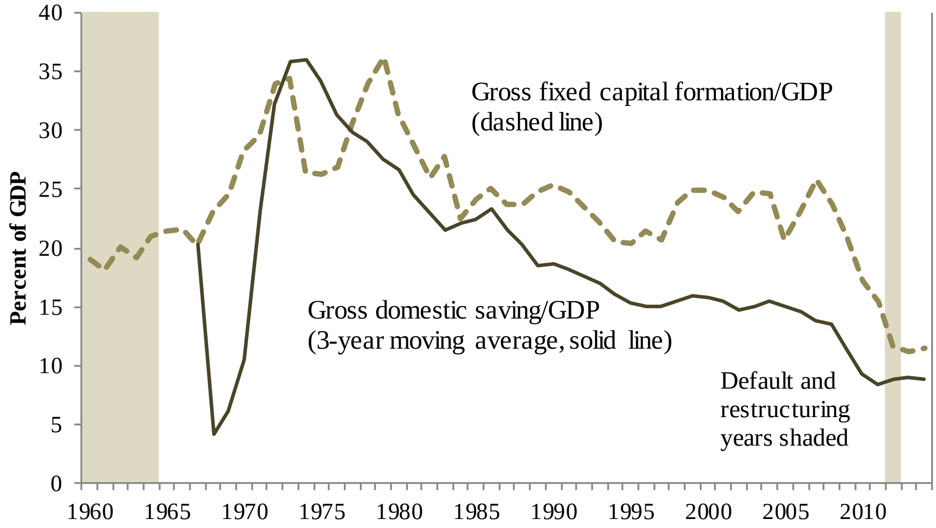
Figure 6 takes a different perspective to show that Greece has been, and continues to be, heavily dependent on external savings and highly vulnerable to sudden stops. The country has run current account deficits for almost every year since the 1920s. More precisely, the share of deficit years between 1946 and 2014 is 93%, compared to just 56% in the 19 other advanced economies for which we have data from Reinhart and Reinhart (2015) and sources listed therein. This difference is striking and highly statistically significant. Moreover, the country has had comparatively low and declining domestic savings, despite the Greek "growth miracle" of the 1960s and 1970s (Figure 7). The savings rate has seen a further drastic collapse since 2008. Correspondingly, the papers by Makrydakis (1999), Brissimis et. al. (2010), and Sinn (2015) (approaching the issue with very different empirical strategies), conclude that since the 1950s Greece's current account deficits have been excessive, putting the country on an unsustainable path in terms of its net foreign liabilities, and making it vulnerable to external shocks. It is well understood in policy circles, but difficult to quantify, that part of the weakness in domestic saving and the reliance on external saving stems from the fact that much of Greek wealth is held abroad. It is a more or less chronic form of capital flight that intensifies in bad times but is usually present, much in the way that we see in many emerging market countries, notably but not exclusively in Latin America (see Zucman 2014, for a discussion on hidden wealth abroad).

Figure 6. Greece: current account deficit years (as a percent of GDP), 1923-2014



Sources: International Historical Statistics, Makrydakis (1999), Mitchell (various), International Monetary Fund, International Financial Statistics and World Economic Outlook, Reinhart and Reinhart (2015).

Figure 7. Gross Domestic Saving and Gross Fixed Capital Formation, 1960-2014

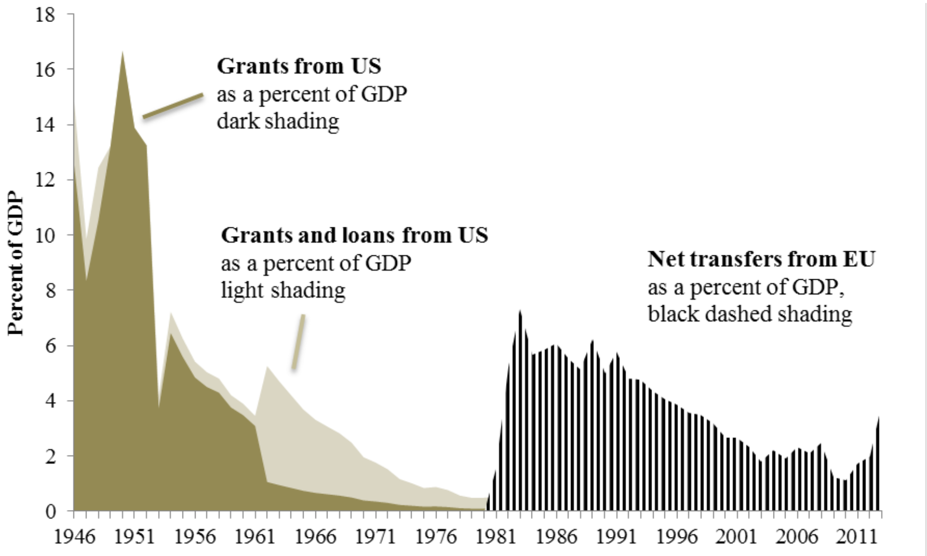


Sources: The World Bank (World Development Indicators) and authors' calculations

Another reason for the enduring current account deficits in Figure 6 are grants (as opposed to loans). The country was a net recipient of large-scale aid transfers over much of the post-WW2 period. First from the United States, which provided Marshall Plan aid in excess of 5% of yearly GDP in the 1950s[16], and later from the European Economic Community, which again transferred yearly grants of 5% of GDP after Greece's entry in 1981.

[16] These transfers are likely to have helped to spur growth. See Adelman and Chenery (1966) for an early analysis on the positive effects of American aid to Greece in the 1950s. The article concludes by suggesting that Greece should move towards higher levels of domestic savings in the future.

Figure 8. Grants from the US and the EU as a percent of GDP, 1946-2013



Sources: International Monetary Fund, *World Economic Outlook*, Maddison/TED GDP data, Mitchell (various), US International Development Agency (1990), Bank of Greece.

Notes: The US grants and loans totals include economic and military assistance under various programs: Post-war Relief Period 1946-1948, Marshall Plan 1949-1951, Mutual Security Act Period 1953-1961, Foreign Assistance Act Period 1962-1990. The EU net transfers includes receipts from the European Social Fund (since 1958), the European Agricultural Guidance and Guarantee Fund (since 1962), the European Regional Development Fund (since 1975) and the Cohesion Fund (since 1992).

4. Four Costly Defaults

In the preceding section we have documented how Greece has heavily relied on external savings throughout its history. In this section, we document that this external dependence had a costly downside, in particular in times of crisis.

4.1 Repeated default and sudden stops

External debt build-ups in Greece ended in four episodes of external default and sudden stops.[17] In total, the country has been in a state of external default about 50% of the years since independence. This can best be seen in Table 1, which shows a timeline of main crisis events in the modern history of Greece.

In the run-up to all four debt crisis episodes, Greece lost access to external borrowing and faced increasing interest rates, typical features of a sudden stop. We also find strong balance sheet effects, in particular during the debt crisis of the early 1930s, in which a drop in the drachma exchange rate and declining central bank reserves resulted in a lack of foreign exchange. The expected exit from the interwar gold standard in 1932 implied that the debt borrowed in dollars and pounds could no longer be serviced out of the state's drachma tax revenues. This contributed to the decision to default in the same months as the gold standard "Grexit" of 1932. Further details on the context of each default episodes is provided in Appendix C.

[17] It is five episodes if one treats the default on the guaranteed loan in 1843 as a separate event. It is six episodes if one adds the July 2015 short-lived default on the IMF. Other such short-lived defaults are routinely included in the sovereign credit histories documented by the rating agencies (which focus on defaults on private creditors).

Table 1. Timeline of Greek defaults, bailouts, and external intervention (see Appendix C for details)

Year	Episodes of Default / Debt Crisis	Bailouts and External Interventions
1824/25	Uprising against Ottomans. Two loans issued in London to finance war	
1826	Default on the "independence loans" (Debt/GDP>100%)	
1829	Independence	
1833	King Otto of Bavaria enthroned as King of Greece. Guaranteed loan by Great Powers	
1843	Economic crisis and revolt against Otto	Guaranteed loan of 1833 gives **Great Britain, France and Russia** legal control over Greek revenues. High taxes and expense cuts cause public discontent
1862	King Otto overthrown	
1866	Begin of debt renegotiations	
1878	Debt restructuring and crisis exit	
1879	Market re-access and start of lending boom	
1893	Second default	**1898-1942 International Finance Commission** manages Greek budget and assures debt servicing. Financial control imposed by creditor countries as a condition for 1898 guaranted loan and as part of peace treaty with Turkey
1897	Debt restructuring and peace treaty with Turkey	
1898	Second guaranteed loan by Great Powers	
1914	War-time lending starts	
1923	Refugee crisis, loan arranged by League of Nations	
1928	Additional "League Loans"	
1932	Third default and exit from gold standard	**1923-1932 League of Nations** demands adjustment programs as condition for loans
1936	Metaxas dictatorship (until 1941)	
1941	Occupation by Nazi Germany and Fascist Italy	
1946	Civil war (until 1949)	
1947	Start of Marshall Plan grants and lending by US	
1954	Begin of debt renegotiations	
1964	Debt restructuring and market re-access	
1967	Coup d'état. Military junta takes power (until 1974)	
1981	Membership in European Economic Community	
2001	Introduction of Euro	**2010-today Troika** of IMF, European Commission and ECB demands primary surplusses and reforms as condition for bailout loans and Eurozone membership
2010	Eurozone bailout. Loss of market access	
2012	Private debt restructuring	
2015	Default on IMF (temporary)	

4.2 Protracted crisis resolution and limited debt relief

Table 1 shows how protracted the resolution of sovereign defaults has been in Greece. The first default of 1826 spanned a remarkable 54 years, while the third default of 1932 was resolved only 30 years later (in 1964). Moreover, the current debt crisis which started in 2010 is still very far from being resolved.

What explains these long delays in crisis resolution in Greece? The reasons are of course manifold, including protracted recessions as well as political.[18] But part of the delays can be clearly attributed to the creditor side. This is most evident when studying the largely "excusable" default of 1826 and how it was resolved. We know that the terms of the independence loans of 1824 and 1825 (contracted even before Greece became a sovereign country) were very unfavorable. Of the total nominal value of 2.8 million British pounds borrowed de jure, less than 1.3 million flowed to Greece de facto. The rest were very high commissions and retained amounts due to the issuance price of less than 60% of par (see Appendix C). In 1829, the government of the newly founded Hellenic Republic approached creditors offering them to settle the debt so that the repayments would correspond more closely to the actual amounts lent. However, creditors refused to agree to any face value haircut and demanded the full repayment of the contractually agreed sums plus interest payments. With debt above 100% to GDP, these demands were difficult to meet in a war-torn and newly founded state. The refusal to grant debt relief continued after Otto was dethroned and negotiations picked up again. Finally, in 1878, the creditors (or their heirs) agreed to settle the debt at 1.2 m pounds (close to the 1.3 m actually lent) and to forgive the more than 10 million of accrued interest rates and arrears that had accumulated since the 1820s. Ultimately, this restructured debt was then fully repaid upon the pressure of the Great Powers which exerted a strong influence on Greece in the late 19th century. In other words, the creditor ultimately got their money back, albeit with a very long delay. The downside for Greece were 50 years of debt overhang, external interference (see next section), and continued exclusion from international markets.

The crisis resolution process would most likely have been less protracted and debt relief would have most likely been granted earlier if the creditors had been domestic. The government would have had more opportunities to pressure domestic holders into an agreement, and domestic creditors might have had more incentives to restructure the debt of their newly independent country. Instead, Greece faced foreign creditors that went out of their way to use their financial and political influence to pressure Greece for repayment and ultimately largely succeeded in doing so.

Figure 6 illustrates the long-lived consequences of the first external loans of the 1820s and 1830s. The figure breaks down the use of proceeds of each bond borrowed in the first 150 years of Greece's modern history. We separate the share of proceeds that actually benefitted Greece's citizens and those parts that never arrived in the country, either because the new borrowing was used to service old debt or because the issuance price was much below par. The scale of these "non-flows" is striking. Up to the early 20th century, more than 50% of the nominal amounts borrowed never arrived in Greece. Moreover, the remaining chunk was then often largely used for military purposes. Table A1 in the Appendix shows that the use of proceeds did not look more favorably with regard to the bailout loans. It is striking that less than 30% of the 1833 guaranteed loan was transferred to the Greek public treasury. The rest was eaten up by fees, retained interest, a large transfer to the Ottoman Empire, and, most importantly, large expenses to install and protect Otto's regency, including the recruitment of a corps of 3,500 Bavarian soldiers. All of this leads Stavrianos (1952, p. 26) to conclude that "not until 1924 were foreign loans used for productive purposes."

In sum, it took Greece more than 100 years to recover from the legacy of its first external loans. This can also be seen in Figure B1 in the Appendix, which shows that Greece was running primary surpluses for much of its first 100 years. At the same time the country was running budget deficits, since the primary surpluses were fully used to service the external debt.

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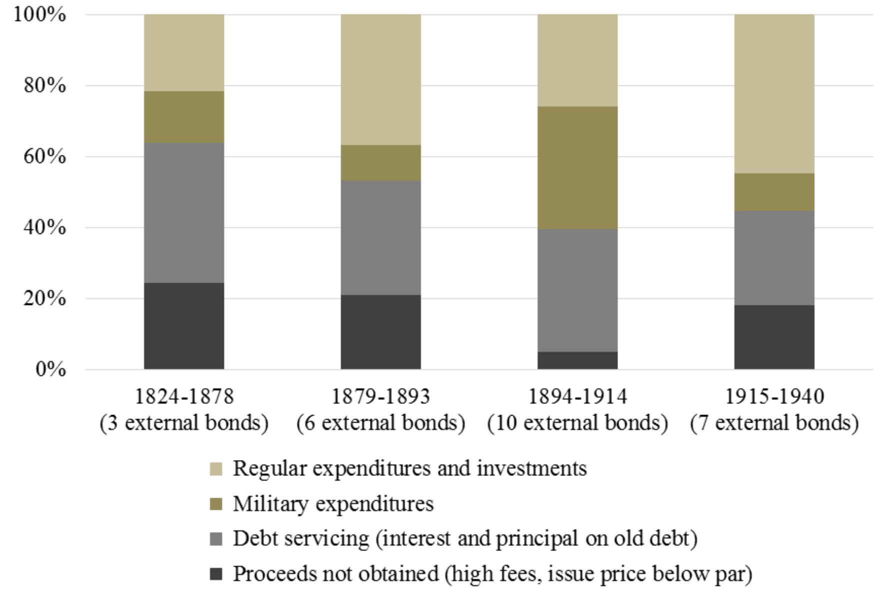
[18] For example, in the reign of King Otto, between 1833 and 1866, Greece refused to even negotiate with creditors, arguing that the war loans of 1824/25 were raised before Greece's independence and therefore not legitimate debt of the Greek state. Moreover, in the 1950s, Greece underwent a period of heavy political turmoil, with government changing more than once per year. This high turnover rate made it very difficult to engage in long-term negotiations with creditors.

In line with these aggregate numbers, Meyer et al. (2015) calculate that external creditors fared rather benignly in Greece, despite the many years of default. The real ex-post returns on the defaulted bonds were in the range of +1% to +5%, despite the losses due to haircuts and arrears. These returns are partly the result of the high yields that these bonds paid between issuance and default, but also because partial debt service continued even in severe crisis years.[19]

Regarding domestic creditors, Figure 5 shows, that they were heavily taxed, in particular during the interwar-years which saw double-digit inflation. Such "taxation" was never possible with regard to Greece's external creditors. The situation does not look much different today, as Greece enters the 5th year with debt overhang and ongoing discussions on the need for debt relief.

Figure 9. What is the debt used for? External bond proceeds 1824-1940



Sources: Meyer, Reinhart and Trebesch (2015) and sources cited therein, in particular the annual reports by the Corporation of Foreign Bondholders (various issues) and the Foreign Bondholders Protective Council (various issues), Levandis (1944), IBRD (1954) and Bikelas (1868).

Notes: Historically, each sovereign bond prospectus contained a detailed description on how the borrowed amounts will be used. It is therefore possible to categorize the use of proceeds by type. "Proceeds not obtained" are nominal amounts borrowed that never flowed to the respective country, mostly because the issuance price was often considerably below the par value of the bond.

4.3 Foreign influence, bailouts and recurring loss of sovereignty

This last subsection documents how heavy borrowing abroad often resulted in external political dependence. Indeed, we discovered a recurring pattern of bailout lending and related political interference. In each of the four default episodes in Greece, foreign governments stepped in with "rescue" loans, typically in the form of tranches that were conditional on achieving certain fiscal or reform targets. Foreign governments also succeeded with their demand to impose fiscal and economic policies that assured primary surpluses and a steady flow of debt servicing to private and official creditors abroad.

[19] For example, in the midst of the Great Depression, in 1930, Greece continued to channel more than a third of its budget revenues to service its debt, corresponding to a transfer of 9% of its GDP, compared to just 3% in Bulgaria and 2.3% in Romania (see Stavrianos 1952, p. 26).

Table 1 summarizes the episodes of foreign financial control in Greece, while Appendix C provides more detailed background information related to each of the four defaults. The first episode resembling a sovereign bailout goes back to 1833, when Great Britain, France and Russia offered the ruling King Otto to guarantee a loan raised on private external markets. As a collateral for this guaranteed loan, the creditor countries made Greece sign a contract that subordinated all of Greece's revenues, thus giving creditors de jure veto power over Greece's fiscal policies (see Kofas 1981 and Waibel 2014). This power was exerted most visibly when Greece faced the first major principal payment on these loans but was suffering from an economic downturn. Against the opposition of King Otto and despite the widespread dissatisfaction and protests among the population, the creditor governments demanded full servicing of the 1833 loan, insisting on further budget cuts.

The influence of creditor governments increased further after the renewed default of 1893 and the near-defeat in the war against Turkey in 1897. As a condition for arranging a peace treaty with Turkey and in exchange of a new guaranteed loan (that was to be used to pay the war indemnity), the Great Powers, in particular Germany, insisted on establishing an "International Financial Commission", which de facto governed the revenues and expenditures of Greece. The Greek government protested against this loss of sovereignty, but had no choice if it wanted to avoid military defeat. This Commission governed the fiscal policy of Greece for many decades after, until the occupation of Nazi Germany ended its rule (see Levandis 1944 and Waibel 2014).

The scope of external political influence took another turn in the 1920s, when Greece approached the League of Nations to ask for help to tackle the economic downturn and the increasing burden of the refugee crisis from Asia Minor. The League helped to arrange several loans and acted as a trustee of these loans. In return, the League negotiated a series of "adjustment programs" with Greece, which were at least partly implemented, in close coordination with the Bank of England, the British Treasury and the still-powerful Finance Commission (see Minoglou 1993).

Against this backdrop, the most recent round of Greek sovereign bailouts and the associated conditionality by the "Troika" of IMF, ECB and European Commission look familiar as to the timing, the process, and the associated political disputes. As debt migrated from private sector balance sheets to official sector balance sheets, Greece was pushed to give up parts of its sovereignty and to implement adjustment programs to which it did not fully agree.

The success of these interventions was often limited. While the foreign creditors succeeded in enforcing debt repayments over most of the late 19th and early 20th century, the state of Greek finances remained problematic and the economic conditions unfavorable. In the words of Levandis (1944, p. 102): "Instead of considering the debt problem in broad aspects and of adopting measures to eradicate the endemic disease with which Greek finances were perennially afflicted, they introduced half measures, inadequate to remedy the situation." (cited in Waibel 2014).

Moreover, it is ironic that the crisis resolution with the official sector was no less protracted than that with private creditors. Indeed, as summarized in Appendix C, Great Britain, France and Russia long insisted that the guaranteed loans of 1833 and 1898 were ultimately repaid in full, including any arrears and accrued interest. This resulted in a situation in which Greece was still servicing the bailout debt of 1833 a century later, in the 1930s. As Lignádhis (1975, p. 611) puts is dramatically, "The undeniable fact remains, that the two loans, which were contracted to establish the independence of the Greek state, were the basic factors in its enslavement." (cited in Brewer 2011).

Thus, arguably, the most costly legacy of external debt is the loss of political control that comes with it during crisis times.

5. External Validity: Greece vs. Other Countries

Do the pitfalls of external dependence also apply to other countries? Answering this question requires a broad and in-depth analysis, which goes beyond the scope of this paper. But the historical record does indeed suggest that the Greek experience is far from unique.[20]

Maybe the most obvious parallel to Greece is the financial history of Latin America, including countries such as Argentina, Brazil and Mexico, which have all been chronically dependent on foreign savings and went through repeated boom-bust cycles in international capital flows over much of the past 200 years (see Kaminsky and Vega-Garcia 2015). At the same time as being "addicted" to external debt, the region holds the global record in sovereign default years (see Reinhart and Rogoff 2009). Moreover, the lost decade of the 1980s debt crisis is also a story of external dependence gone wrong and shows many resemblances to Greece today, including large-scale official bailouts, strict adjustment programs, and refusals to grant debt relief by external creditors.

Other examples include Turkey and Egypt, which saw repeated sudden stops and heavy foreign interference in the wake of defaults, as well as some of today's high-income countries such as Portugal, Spain and China. This latter group featured several lending booms and defaults in the 19th century, but all three countries turned inward in the course of the 20th century, relying more heavily on domestic saving (until recently).

Another, largely forgotten case is Newfoundland which lost its sovereignty and became part of Canada after defaulting in 1937 (for details see Reinhart and Rogoff 2009).

On the opposite end of the spectrum are countries that have a long history of domestic borrowing, e.g. Japan, India and other Asian countries that have barely witnessed sudden stops and defaults in their history (the only Japanese default was in the wake of WW2 and that was on small amounts only, see Meyer et al. 2015). Moreover, there are countries that successfully "tolerated" large-scale external borrowing from financial centers, in particular Australia, New Zealand and Canada. Arguably, the main difference of this group to other former colonies is that the capital flows to these countries was stable, even during periods of global financial distress and low commodity prices (Stone 1999).

6. Conclusion

Sovereign defaults on external creditors can take painfully long to resolve (see Table 2). The Greek experience shows that crises can also be very protracted when foreign governments step in and arrange bailout programs, as was the case in the guaranteed Greek loan of 1833. It started out as a loan from private creditors, which Greece could not repay. The 1833 Troika (France, Great Britain and Russia) repaid the private creditors and Greece's debts shifted to official hands. After decades in default and financial autarky, Greece still faced repayment of that loan more than 100 years later. Such a crisis resolution approach, which results in decades of debt overhang, perpetuates external dependence and impedes a "fresh start" for the over-indebted country.

We have documented elsewhere that protracted debt crises are typically resolved only after creditors agree to face value haircuts (Reinhart and Trebesch 2015). Decisive debt relief is associated with higher subsequent growth that softer forms of debt relief, such as maturity extensions, do not usually deliver. A modern example is the Brady deals of the 1990s, which involved nominal debt reduction and successfully ended the "lost decade" in many developing countries. In contrast, the

[20] In a broad historical perspective, Reinhart and Rogoff (2009) show that periods of high international capital mobility were also those with the highest frequency of international defaults and banking crises.

Baker deals of the 1980s, which extended maturities, were, in retrospect, a failure for both debtor countries and US taxpayers.

Against this backdrop, a key ingredient in the resolution to the ongoing Greek crisis is a deep nominal haircut on the stock of official (and possibly private) external debt. Further maturity extensions would be an unfortunate repetition of the Greek history documented in this paper (Table 2) and only delay the day of reckoning – to the disadvantage of both Greece and Eurozone taxpayers. Extending the debt until 2070 (as discussed by the IMF 2015) is likely to add fuel to a never-ending debate on what to do with Greek debt. It is difficult to see how this could foster a renewal in confidence, and sustained growth and investment.

Table 2. Greece: Elements of Debt Resolution, 1826-2015

	Delay	Bonds restructured	Interest arrears	Haircut
Default of 1826-1878	53 years	£2.8 m	£10 m	between 40% (face value reduction) and 91% (incl. cancelation of interest arrears)
Default of 1893-1898	5 years	£22.3 m	£3 m	between 37% and 53% depending on asumptions. No face value reduction
Default of 1932-1964	32 years	£54.7 m	£64.5 m	between 64% (excl. interest arrears) and 86%. However, no face value reduction
Restructuring of 2011/2012	<1 year	€199.2 bn	no arrears (preemptive)	betwen 59% and 65% depending on discount rate and asumptions

Sources: Meyer, Reinhart and Trebesch (2015), Zettelmeyer, Trebesch and Gulati (2013), and sources cited therein

Beyond the immediate and towering challenge of coping with the current debt crisis, we believe that Greece (and periphery Europe) can learn from some of the measures taken in many emerging markets in the 1990s after their own financial crises. Emerging markets were hit hard during the Global Financial Crisis and many have been hit even harder by the unfolding sharp declines in commodity prices. To date, those that were best able to weather these storms were countries that had recorded significant declines in public and private external borrowing during the years prior to the global crisis. [21] Many governments had built "war chests" in the form of reserves and sovereign wealth funds. According to a recent study by Moody's (2015), the trend towards domestic debt in EMs has accelerated since 2008.

We are well aware that Asia in the 1990s, in particular, started from a much more favorable position than Greece today.[22] Greece suffers from low domestic savings rates and a limited trust in domestic investment opportunities. Nonetheless, a long-run policy priority for Greece should be to shift the balance to domestic sources of funding. We have no basis to conclude that greater reliance on domestic savings will be a panacea of economic stability but we do have 200 years of evidence to support the view that chronic reliance on external capital has repeatedly led to ruin.

[21] See Frankel and Saravelos (2012).
[22] It is of some comfort, that low saving rates, chronic capital flight and heavy dependence on external borrowing once characterized Chile.

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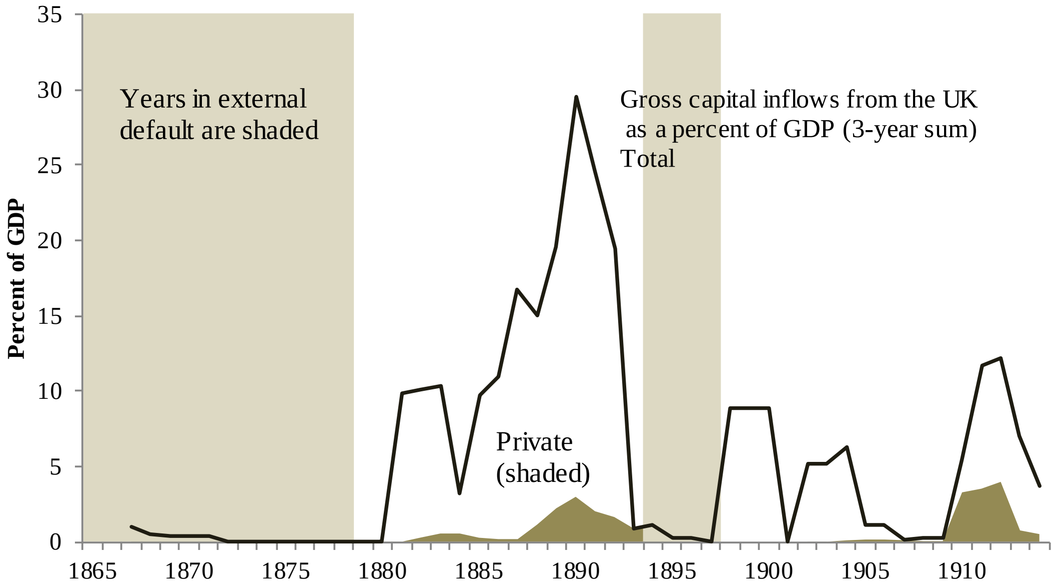
Appendix A: More on Greece's External Dependence

Figure A1. Gross capital inflow surges and sudden stops, Greece: 1865-1914
(Capital imports from the United Kingdom as a percent of GDP)



Sources: Reinhart and Rogoff (2009), Reinhart and Trebesch (2015), South-Eastern European Monetary History Network (2014), Stone (1999).

Table A1: The First Bailout Loan of 1833: Use of Procceds

The following is a summary of the use of proceeds of the 1833 guaranteed loan by the Great Powers (Tranches A and B, totaling 44.5 million drachmas):

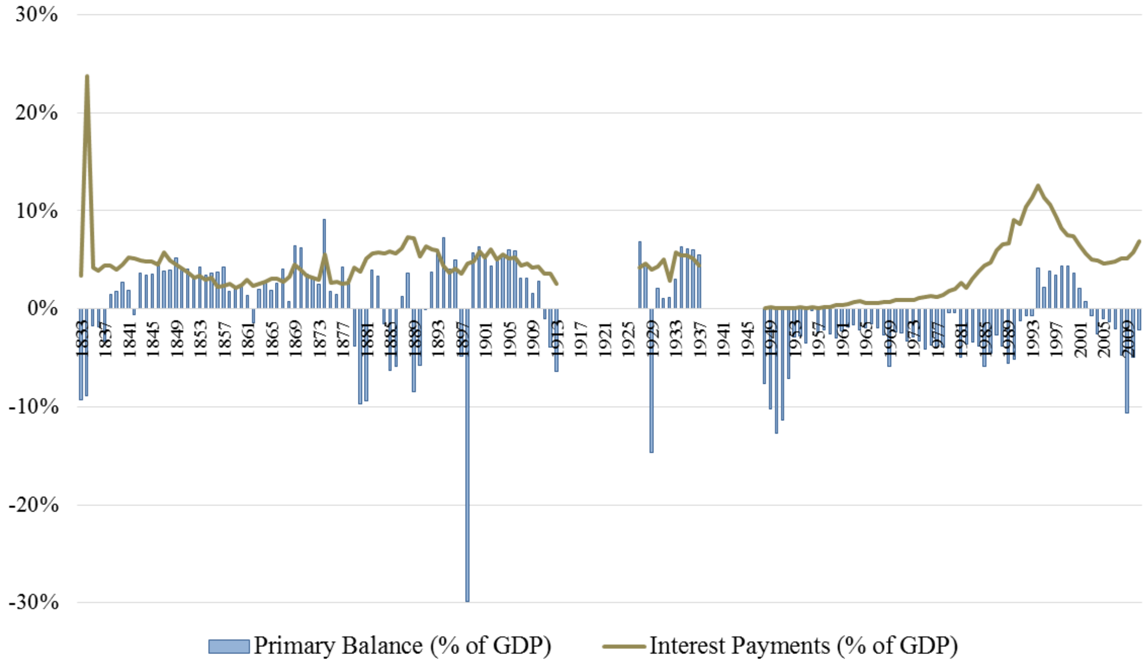
Fees to the House of Rothschild……………………………………5 million
Interest on loan for 1933-1935 (advanced)……………….……..7.6 million
Compensation to Ottoman Empire…………………………….…...12.5 million
Debt repayment to Great Powers (advanced)………………………2 million
Travelling expenses for King Otto, his personnel and escort….....2.1 million
Wages and other expenses for members of Otto's regency…..…....2 million
Recruitment and moving costs for Bavarian Voluntary Corps…...3.3 million
Purchase of military supplies………………………………………1 million
***Subtotal*:…………………………………………………….....35,5 million**

Remainder transferred to Greek Public Treasury**……....……….…..9 million**

Source: Kofas, Jon. 1981. Financial Relations of Greece and the Great Powers 1832-1862. Boulder: East European Monographs. Page 25.

Appendix B: Greece's Fiscal Position in History

Figure B1. Greek primary balances and interest payments 1833-2011



Sources: South-Eastern European Monetary History Network (2014) for data 1833-1879, Mauro et al. (2013) for data 1880-2011, as well as detailed sources cited therein.

Appendix C: Background on Sovereign Defaults in Greece (see list of sources below)

Default of 1826

Context:

In 1821 Greece began to revolt against Ottoman rule. To finance the independence war, a provisional government borrowed two large-scale loans in 1824 and 1825 (in the order of 120% of GDP of 1833) at very unfavorable terms. Of the total nominal value of 2.8 million British pounds, less than 1.3 million actually flowed to Greece. The remainder was retained due to high commission fees and because the issue price was less than 60% of par. The provisional government declares default in 1826 due to the ongoing conflict and because of high military expenditures.

Crisis Resolution and Outcome:

Duration of Default: 53 years (1826 until 1878); market re-access in 1879

Crisis resolution: In 1829 first settlement offer by Greece, which is refused by creditors, who insist on repayment of 100% of par. From 1833 to 1866 no negotiations, since King Otto does not recognize the loans made by a provisional government prior to his rule. From 1866 to 1875 negotiations break down frequently, partly due to political instability in Greece and partly due to disagreements with creditors. A main disagreement was on how to treat arrears and compound interest, which had ballooned to £10 m (a multiple of the original loan amounts).

Haircuts: De jure haircut above 90% (debt reduction on principal and interest arrears). The de facto haircut was much lower than that. Indeed, the new, exchanged loan amounted to £1.2 million (which is close to the £1.3 m originally borrowed in 1824/25) and was fully paid off in 1890 (20 years ahead of schedule). The haircut size also crucially depends on whether interest arrears are included or not.

Bailout Loans / Official Lending:

Yes: In 1830 the governments of France, Great Britain and Russia (the three powers) agreed to jointly guarantee a loan of 60 m Francs to be raised on private markets and to be paid out in three tranches, conditional on sound financial management. A loan totaling 60 m Francs was finally arranged in 1833, was paid out in three tranches, and with principal repayments starting in 1840King Otto defaulted on this loan in 1838 and again in 1843. From 1838 on, the Powers largely assumed the repayment towards private creditors, until the loan was fully repaid to private creditors in 1871. In the late 1890s the Powers used their new political leverage to reactivate this old claim and Greece resumed debt servicing on the loan until the 1930s.

Amounts: 60 m Francs (2,4 m pounds) originally contracted. This is equivalent to 124% of the estimated Greek GDP of 1833 or 275 million real USD (deflated at 2009 values).

Foreign Political Intervention:

The loan contract of 1830 contained a provision that allowed the Three Powers to intervene financially in case of a default. Moreover, the loan pledged "all revenues of Greece" as collateral, which de facto subordinated all other expenditure needs including repayments to the two previous private loans. In 1833 Otto, son of Ludwig I of Bavaria, was installed by the Three Powers as King of Greece. During his rule Otto imposed high taxes that even exceeded those under Ottoman rule. The external financial intervention became most visible in 1843 when the Powers insisted on the servicing of the guaranteed loan and pressed for fiscal tightening and more savings, despite increasing public discontent about taxes and military expenditures. Faced with military threats by Great Britain, Otto agreed to the demands and imposed drastic budgetary cuts. This was followed by an uprising against Otto in September 1843 and a renewed default on the guaranteed loan.

Default of 1893

Context:

After regaining market access in 1879, Greece borrowed heavily from foreign investors, partly to meet obligations on the old debt from the 1878 debt settlement. Moreover, in the early 1890s, the government contracted new loans abroad, ran high budget deficits and saw a collapse of its exports to Europe. The drop in exports was partly due to the recession in Northern European countries but also because France, Germany and Russia imposed a duty on currants, which accounted for 2/3 of Greek exports at the time (currant exports decreased by more than 50% between 1891 and 1893). The result was a collapse of the exchange rate and increasing difficulty to service the large stock of external debt. Greece declared a unilateral default in parliament in 1893, after losing market access abroad. Greece's financial situation further deteriorated as a result of its decision to engage in a war against the Ottoman Empire in 1897.

Crisis Resolution and Outcome:

Duration of default: 5 years (1893-1898); market re-access in 1902

Crisis resolution: Slow process until 1897. After the Greek defeat in the war against the Ottoman Empire, its bargaining power deteriorated. In 1898, a rapid debt settlement was achieved, since it was legally linked to the peace treaty with Turkey. Accordingly, the negotiations over the peace treaty and debt settlement were orchestrated by Austria-Hungary, France, Germany, Great Britain, Italy and Russia.

Haircuts: No cut in principal. Present value haircut between 37% and 53% depending on assumptions and discount rate used.

Bailout Loans / Official Lending:

Yes: A new loan of 1898 was guaranteed by France, Great Britain and Russia. The proceeds were used to pay the war indemnity to Turkey and to service the new restructured private debt obligations. The Powers also demanded the repayment of the old 1833 guaranteed loan, including arrears and compound interest. The new and old guaranteed loans were serviced regularly and nearly redeemed, until the default of 1932. From then on, the two remaining guarantors (France and Great Britain) repaid the remainder of the 1898 loan to investors. France's share of these guarantee payments were partly reimbursed by Greece in a separate agreement of 1965.

Amounts: 150 million Gold Francs (6 m pounds) in two tranches. This is equivalent to 26.8% of Greek GDP in 1898 or 668 m real USD (deflated at 2009 values).

Foreign Political Intervention:

As part of the peace treaty with Turkey, the Great Powers installed an "International Financial Commission" of representatives of Austria-Hungary, France, Germany, Great Britain, Italy and Russia. It was granted far-reaching control over Greek fiscal affairs. According to Borchard and Wynne (1951) and Levandis (1944), the German government was the main proponent of imposing foreign financial control in Greece, as many bondholders were German and the public opinion in Germany demanded foreign intervention (similar commissions had been installed by Great Britain in Egypt and in the Ottoman Empire). The Financial Commission generated high primary surpluses and assured full debt servicing of Greece's external debt, including on the guaranteed loans. It governed Greek finances with an expanding mandate until 1942, when the Nazi occupation interrupted its rule.

Default of 1932

Context:

Between 1929 and 1932 declining government revenues, increasing inflation (in excess of 40%) and a strong decline of exports during the Great Depression. This was accompanied by an erosion of foreign exchange reserves. A banking crisis in 1931 and mass-immigration of refugees from Asia Minor worsened the fiscal crisis substantially. In April 1932 Greece leaves the Gold standard, resulting in a 50% depreciation of the drachma and a doubling of external debt servicing costs. In parallel, Greece unilaterally suspended all payments on external debt in April 1932.

Crisis Resolution and Outcome:

Duration of default: 32 years (1932-1964); market re-access in 1963

Crisis resolution: Cooperative process until German occupation in 1942. Between 1932 and 1939, a series of short-term agreements were reached with creditors. Partial debt service by Greece continued, despite severe crisis. After WW2 negotiations started only in 1954, but there was further delay, also due to frequent government changes in Greece. Restructuring concluded only in 1964.

Haircuts: No cut in principal. Present value haircut in the range of between 64% (excl. interest arrears) and 86% (with interest arrears).

Bailout Loans / Official Lending:

Yes: Substantial war-time loans by the governments of the UK, Canada, US and France during and after WW1. Moreover, two "refugee" loans were arranged in 1924 and 1928 with the help of the League of Nations, which acted as a trustee. The purpose of these loans was to finance the costs of the mass-inflow of refugees and to stabilize the economy.

Amounts: WW1-related lending of 23.5 m pounds by the UK, 20 m US$ by the US, 8 m Can$ by Canada and 144 m Francs by France, respectively. The sum corresponds to more than 55% of Greek GDP of 1928. The League Loans amounted to 94 m US$, more than 20% of GDP.

Foreign Political Intervention:

The International Financial Commission preserves its control over Greek fiscal issues until the occupation of Nazi Germany in 1942. Moreover, between 1923 and 1931 the League of Nations exerts significant influence on Greek fiscal and monetary policy, as a condition for arranging the League-sponsored loans. The League negotiates several adjustment plans with Greece, which mainly aim to reduce inflation and improve the fiscal situation by increasing taxes and reducing expenditures, in particular military expenditures. The activities of both the Commission and the League were under strong British influence, in particular from the Bank of England and the British Treasury.

Default of 2012

Context:

Persistent budget deficits and strongly increasing debt stock since the 1980s. The Greek fiscal position deteriorated after 2008 when the government revealed a deficit exceeding 10% of GDP and because private capital inflows reversed (sudden stop). In 2010 loss of market access and strong increase in bond yields. Private debt restructuring implemented in 2012.

Crisis Resolution and Outcome:

Duration of default: No legal default. Restructuring in 2012. Severe debt distress (bond spreads>10%) since 2010

Crisis resolution: First negotiations start in mid-2011. Restructuring concluded in April 2012. The fast restructuring was achieved by a combination of large cash incentives for creditors, new legal techniques and political pressure on key domestic and external creditors.

Haircuts: Nominal haircut of 53.5%. Present value haircut in the range 59-65% depending on assumptions and discount rate used. Large cash transfers to creditors (15% of old principal) and bailout of domestic Greek banks financed from official loans.

Bailout Loans / Official Lending:

Yes: Multiple official loans disbursed by Eurozone countries (bilaterally and via the EFSF) and by the IMF since May 2010. All disbursements in tranches, conditional on good financial management. Large-scale ECB purchases of Greek sovereign bonds in May and June 2010.

Amounts: Between 2010 and 2013 a total of €215 m of Eurozone and IMF loans were disbursed. This is equivalent to 110% of Greek GDP in 2012

Foreign Political Intervention:

As a condition for official financing, the European Central Bank, the European Commission and the IMF ("Troika") required the implementation of macroeconomic adjustment programs aimed at generating primary fiscal surpluses, reducing public expenditures and structural reforms to improve Greek competitiveness.

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