

## **The Euro Area Crisis Five Years After the Original Sin**

Athanasios Orphanides\*

### **Abstract**

Why did Europe fail to manage the euro area crisis and what lessons can be drawn from this failure for Europe's future? Studying the EU/IMF program that was imposed on Greece in May 2010 – the original sin of the crisis – highlights both the nature of the problem and the difficulty in resolving it. The mismanagement can be traced to the flawed political structure of the euro area that permitted governments of some member states to exploit problems in other member states that share the common currency. Undue influence of key euro area governments compromised the IMF's role to the detriment of other member states and the euro area as a whole. Rather than help Greece, the May 2010 program was designed to protect specific political and financial interests in other member states. The ease with which the euro was exploited to shift losses from one member state to another and the absence of a corrective mechanism render the current framework unsustainable. In its current form, the euro poses a threat to the Eurozone project.

### **Die Krise im Euroraum fünf Jahre nach der „Original Sin“**

#### **Zusammenfassung**

Weshalb scheiterte Europa daran, die Euro-Krise zu bewältigen, und welche Lehren können aus diesem Scheitern für Europas Zukunft gezogen werden? Das

---

\* Correspondence: MIT Sloan School of Management, E62-481, 100 Main Street, Cambridge, MA 02142. Tel.: +1-617-324-4051. E-mail: athanasios.orphanides@mit.edu

This article is based on the Credit and Capital Markets Lecture presented at the fourteenth Annual Conference of the European Economics and Finance Society in Brussels on 13 June 2015. I would like to thank Alex Apostolides, Mike Bordo, Barry Eichengreen, Charles Goodhart, Dan Gros, Michalis Haliassos, Simon Johnson, Alex Michaelides, Kevin O'Rourke, Julio Rotemberg, Paul Tucker, Charles Wyplosz and participants of the EEFS conference as well as participants of related presentations at the Graduate Institute in Geneva, the Warwick Economics Summit, the Federal Reserve Bank of Richmond, the American Enterprise Institute, the American Hellenic Institute, Harvard University, MIT, the University of Cyprus, the University of Nicosia and Princeton University for helpful discussions and comments.

Studium des EU/IWF Programmes, das Griechenland im Mai 2010 auferlegt wurde (die Erbsünde der Krise), zeigt sowohl die Natur des Problems als auch die Schwierigkeit, es zu lösen, auf. Das Missmanagement kann auf die fehlerhafte politische Struktur des Euroraums zurückverfolgt werden, die es zuließ, dass Regierungen mancher Mitgliedstaaten die Probleme in anderen Ländern des einheitlichen Währungsraums ausnutzten. Übermäßiger Einfluss der wichtigsten Regierungen des Euroraums beeinträchtigte die Rolle des IWF zum Nachteil der anderen Mitgliedstaaten und des Euroraums als Ganzes. Anstatt Griechenland zu helfen, wurde das Programm vom Mai 2010 dazu entworfen, bestimmte politische und finanzielle Interessen anderer Mitgliedstaaten zu schützen. Die Leichtigkeit, mit welcher der Euro ausgenutzt wurde, um Verluste von einem Mitgliedstaat zum anderen zu schieben, und das Fehlen eines Korrekturmechanismus machen den aktuellen Rahmen untragbar. In seiner aktuellen Verfasstheit stellt der Euro eine Gefahr für das europäische Projekt dar.

*Keywords:* IMF lending, Greece, Germany, European Union, euro, austerity, debt sustainability, systemic exemption, contagion.

*JEL Classification:* D72, E32, E65, F34, G01, H12, H63.

## I. Introduction

Five years after the beginning of the euro area crisis the outlook for the common currency looks bleak. The euro has failed its first major test since its introduction. Rather than promote prosperity in Europe, the euro has trapped numerous euro area member states into a protracted slump. Rather than promote the euro area's economic strength in the global economy, the euro has sapped economic potential, leading to a widening gap in economic performance relative to other economies. Rather than complete the European project, the euro has promoted mistrust among the people of Europe and contributed to the disintegration of the euro area.

What are the causes of this failure? Study of the failed IMF/EU program that was imposed on Greece in May 2010 – the original sin of the crisis – provides rich information that can help explain both the nature of the problem and the difficulty regarding its resolution. Information that is now in the public domain can shed light on how and why flawed decisions were made during the crisis. The analysis suggests that mismanagement of the crisis can be traced to the political structure of the euro area that leveraged the power of some member state governments against the interests of other member states and the euro area as a whole.

Given its accumulated experience in crisis management, the IMF could have helped contain the crisis and resolve it effectively. By applying its

established lending framework, the IMF could have guided the implementation of a program which would have resolved the Greek crisis successfully. One aspect of the European tragedy is that undue influence of specific euro area governments in managing the IMF rendered the role of the IMF counterproductive. Rather than help the euro area member states requesting assistance, IMF decisions were guided by competing interests of other euro area governments. The original sin of the crisis would not have been possible, had the IMF not circumvented its own established rules by introducing a deeply flawed “systemic exemption” to its lending framework. Using a legitimate concern – the risk of contagion – as a pretext, the IMF underwrote a program that shifted crisis losses that would have been borne by other euro area member states to Greece, precipitating the economic collapse of the country and creating a precedent for subsequent mismanagement of the euro area crisis.

This paper revisits the original sin of the crisis, examines the economic and political origins of associated decisions and discusses the threat posed by the current functioning of the euro for the future.<sup>1</sup> It concludes that the ease with which the euro was exploited to shift crisis-related costs from one member state to another, the continued denial by the European establishment to acknowledge the problem and the absence of a corrective mechanism that could restore rudimentary respect of European ideals, render the current framework unsustainable. In its current form, the euro poses a threat to the European project.

## II. Why Europe Failed?

The creation of the European economic and monetary union (EMU) was based primarily on political criteria. Prominent economists, including supporters of the European project, had expressed serious misgivings about the adoption of the common currency even before the introduction of the euro.<sup>2</sup> In 1996, *Rudi Dornbusch* concluded: “If there was ever a bad

---

<sup>1</sup> Numerous authors have contributed to a growing literature that covers different aspects of the crisis. Recent contributions include *Bini-Smaghi* (2013), *Temin/Vines* (2013), *O'Rourke/Taylor* (2013), *Friedman* (2014), *Orphanides* (2014), *Pisani-Ferry* (2014), *Soros* (2014), *Wolf* (2014), *Wyplosz* (2014), *Bluestein* (2015) and *Eichengreen* (2015).

<sup>2</sup> Examples include *Dornbusch* (1996), *Feldstein* (1997), *Friedman* (1997) and *Krugman* (1998). *Jonung/Drea* (2010) document in detail the skepticism reflected among economists based in the United States. Concerns were also expressed among economists in Europe. In Germany, for example, 62 professors issued a

idea, EMU is it.” However, the first decade of the euro was generally seen as a success and on the basis of that performance the case against the euro appeared weaker (*Issing* (2010)). What caused the subsequent failure?

The global financial crisis that rattled the global economy in 2008 was the first major test for the euro since its introduction in 1999. The crisis exposed fragilities in numerous economies that persisted even after the global economy started to recover a year later. The first wave of problems in the euro area threatened the banking sector, especially in Germany, the Netherlands, Belgium and Ireland. In Germany, the collapse of banking institutions, particularly ones with close links to the government, forced Chancellor Merkel’s government to engineer costly bailouts of German bankers which were paid for by taxpayers, fueling public resentment. Managing German public opinion to preserve the political success of the Chancellor’s government would prove decisive for the subsequent handling of the euro area crisis. But the issue that marked the beginning of the euro area crisis was of a different nature. It was a straightforward fiscal problem in one of the smaller member states of the euro area – Greece.

At the end of 2009, Greece faced questions about the sustainability of its government debt, becoming the first euro area member state requiring IMF assistance. Greece faced many of the macroeconomic problems commonly encountered in countries turning to the IMF for help. Accumulated populist spending had led to sustained budget deficits and current account deficits, a loss of competitiveness and an overvalued real exchange rate. However, the fact that Greece was in the euro area created some uncommon challenges. Importantly, as a member of the euro area, Greece had relinquished control of its own monetary policy and exchange rate policy – tools which could have been used to defuse the crisis. The design and implementation of an IMF program for Greece required coordination of policies with other euro area governments and institutions. The resulting complications led to decisions by euro area governments and institutions and the IMF that transformed the problem from what could have been handled as an ordinary IMF program for Greece in 2010 into a systemic crisis for the euro area as a whole. How and why did this happen?

---

public warning against the introduction of the euro in 1992. In February 1998, after the decision had been taken, 155 economists published an open letter entitled “The euro is coming too early” (*Issing* (2010)).

The common currency eliminated important mechanisms that an individual country could normally rely on to defuse a crisis, such as monetary and exchange rate policy. The euro tied member states together, elevating the importance of cooperation among governments for proper crisis management. However the proper framework for this cooperation was lacking. The absence of a crisis management mechanism generated the need for addressing questions not foreseen in the European Union Treaty. Since unanimous agreement of the member states is effectively required to address many such questions, the governments of other euro area member states acquired an outsized influence on the management of the crisis in Greece. This established a precedent and dominated decision making throughout the crisis, including when other euro area member states subsequently were forced to seek temporary assistance from the IMF. In contrast to situations facing crisis-stricken countries elsewhere, the design and implementation of an IMF program for Greece (and subsequently for other euro area member states) effectively became subject to the approval of each of the other governments of the euro area. The result was the domination of the decision making process by competing and conflicting financial and political interests among member states of the euro area.

A key question in every crisis is who pays the cost associated with its resolution. Any crisis involves economic costs and financial losses that must be recognized and managed. The process unavoidably also creates political costs. Proper crisis management should aim to minimize the total economic cost and manage a fair distribution of losses across time and across stakeholders. However, in the euro area no institution or government has the responsibility or the authority to take decisions to that effect. Governments of individual member states are accountable to and have the responsibility to serve the interests of citizens in their own states. Political survival of elected governments demands that leaders in any member state focus on voters and public opinion in their own state, regardless of whether this leads to decisions that are harmful for other states. Politics generates incentives for diverting losses among different groups of stakeholders and among different euro area member states.

In the euro area, the crisis created opportunities for some member state governments that could be exploited for their own narrow political interests, to the detriment of the euro area as a whole. The euro led to the triumph of local politics – politics at the level of individual member states. Rather than work together towards containing total crisis-related losses,

politics led some governments to focus on shifting losses to others. The result was unfortunate but predictable: Massive destruction in some member states, and a considerably higher total cost for Europe as a whole.

### III. Winners and Losers

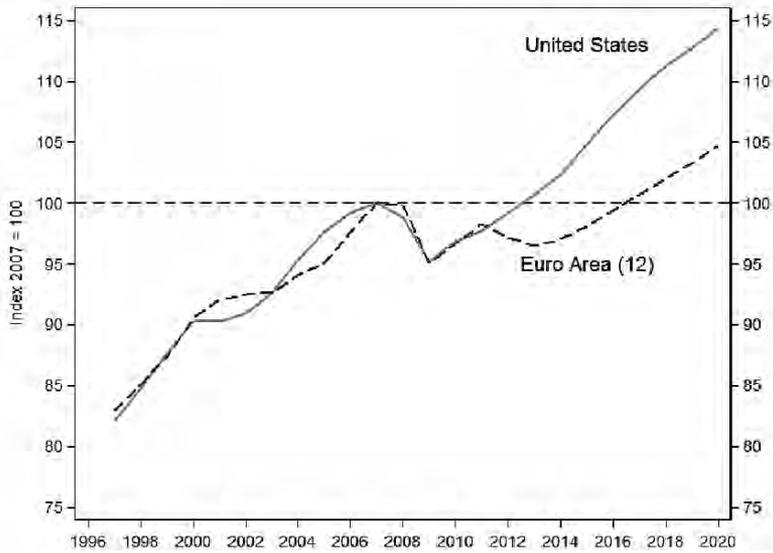
A comparison of recent data and IMF projections of real GDP across different economies highlights the results of the crisis mismanagement in the euro area and is suggestive of the relative success of various governments to protect their own interests. Looking first at the euro area as a whole, Figure 1 compares the euro area with the United States – the economy most directly comparable to the euro area in many respects. As can be seen, while the performance of the two economies tracked each other during the first decade of the euro, since the beginning of the euro area crisis their performance diverged significantly, with a gap that is projected to widen during the rest of this decade.<sup>3</sup> Using the US as a benchmark of what could be achieved with reasonable macroeconomic policy and crisis management, the figure suggests that the mismanagement of the crisis in the euro area has generated a sustained annual loss of about 10 percent of GDP per person.<sup>4</sup>

Figure 1 is informative of the adverse consequences of the crisis for the euro area as a whole, but obscures critical distributional effects of the euro area's malfunction. One view of the distributional effects is presented in Figure 2. The figure compares the data and projections for the four largest member states, which together represent about 80 percent of euro area GDP. The data and projections reveal large and sustained differences among these economies. The crisis has created winners and losers. Among euro area member states, Germany has been by far the biggest

---

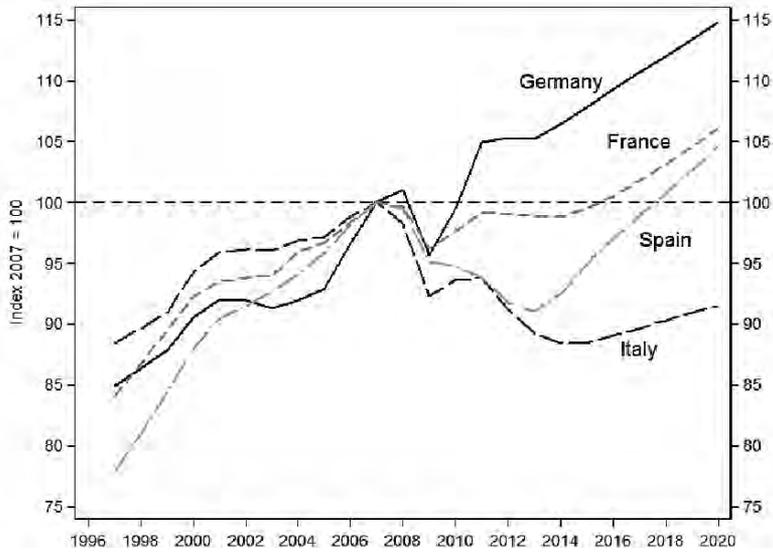
<sup>3</sup> The data and forecasts are from the IMF's April 2015 World Economic Outlook database. For the euro area, the series plotted represents the weighted average of the 12 original member states (Germany, France, Italy, Spain, Netherlands, Belgium, Greece, Austria, Ireland, Portugal, Finland, and Luxembourg). This excludes member states that have joined the euro area since 2007.

<sup>4</sup> To be sure, such comparisons must be interpreted with caution. A detailed macroeconometric model would be needed to assess how much of the difference in performance is due to mismanagement and how much could potentially be attributed to other factors. The task is further complicated by the fact that much of the change in GDP reflects downward revisions in estimates of potential GDP, beyond the usual cyclical factors. See *Ball* (2014) for a detailed discussion of this "long-term damage" in OECD countries.



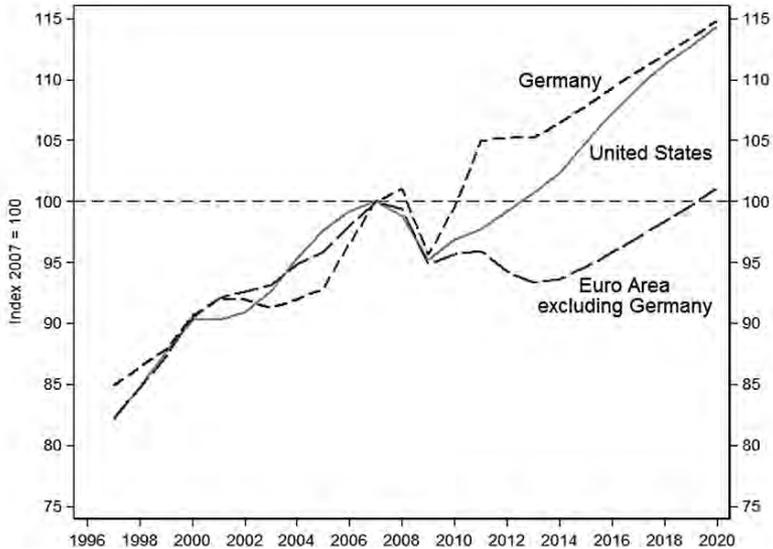
Notes: Annual data and projections from April 2015 World Economic Outlook. Index 2007 = 100.

Figure 1: Real GDP per Person: United States vs Euro Area



Notes: Annual data and projections from April 2015 World Economic Outlook. Index 2007 = 100.

Figure 2: Real GDP per Person: Largest Euro Area Member States

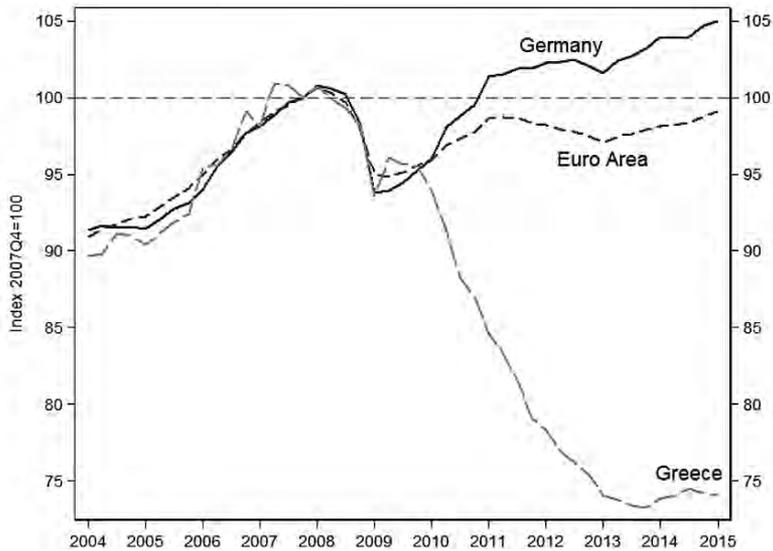


Notes: Annual data and projections from April 2015 World Economic Outlook. Index 2007 = 100.

Figure 3: Real GDP per Person: Germany vs Euro Area Excluding Germany

and perhaps the only winner of the crisis. Indeed, among the largest four member states, Germany is the only economy that appears to have satisfactorily recovered from the global financial crisis. Compared to Germany, France has fallen behind and only recently recovered to its pre-crisis GDP per person level. Spain and Italy have done even worse. By the end of this decade, the gap between per capita GDP in Italy and Germany is projected to be around 25 percent, relative to their pre-crisis levels in 2007. Even more startling is the observation that Italian real GDP per person not only lags its pre-crisis level but has fallen below the level that prevailed when the euro was introduced in 1999 and is only expected to match its 1999 level towards the end of the decade.

The difference between Germany and other large euro area economies suggests an alternative way to classify winners and losers: Germany vs the rest. Figure 3 offers this comparison, superimposing also the performance of the United States, reproduced from Figure 1. The comparison suggests that it is incorrect to infer that the mismanagement of the euro area crisis has been harmful to all member states. A more accurate representation is that the mismanagement of the euro area crisis has benefited Germany to the detriment of the rest of the euro area. Taking the



Notes: Quarterly data of real GDP. Index 2007Q4 = 100.

Figure 4: Winners and Losers of the Crisis

performance of the US as a benchmark, the benefit to Germany can be measured as the degree to which German GDP per person has outperformed that of the US. The substantial cost for the rest of the euro area is also evident. Overall, the outcome of the euro area crisis has been to create a persistent 15 percent gap in GDP per person between Germany and the rest of the dozen countries that originally formed the euro area.

What about Greece? Figure 4 compares quarterly real GDP data for Germany, Greece and the euro area as a whole, indexed to equal 100 at the end of 2007. The result of the IMF/EU program in May 2010 has been a monumental failure, comparable to the worst ever macroeconomic policy disasters. Real GDP in Greece has declined by over one quarter since the beginning of the global financial crisis. The destruction is of Great Depression proportions, comparable to the worst among experiences around the world during the 1930s. Restricting attention to the history of modern Greece alone, the drop in GDP represents the deepest and most protracted depression in recorded data, with the only possible exception being the war-time experience associated with the German occupation of Greece during World War II.

#### IV. The Original Sin: What Happened in 2010?

How can the catastrophe in Greece be explained? Economic disasters rarely have a single cause. They are often the outcome of the interaction of multiple adverse circumstances and policy decisions. That said, key contributing factors can often be separated from secondary elements. In the context of the euro area crisis, it is particularly useful to examine the decision making process that led to the imposition of the IMF/EU program on Greece in May 2010 and assess the reasons for its failure.

As already mentioned, the global financial crisis exposed weaknesses in the Greek economy, similar to problems commonly encountered in countries forced to turn to the IMF for help. Populist spending by irresponsible governments encouraged consumption over investment and bloated the public sector at the expense of private development and long-term growth. This led to sustained budget and current account deficits. Prices and unit labor costs increased faster than the euro area average, leading to the loss of competitiveness and the overvaluation of the real exchange rate.

Problems of this nature are quite common among countries turning to the IMF for help. IMF programs are designed to improve internal and external balance and the competitiveness of the economy. IMF programs are designed based on established principles, taking into account idiosyncratic circumstances and conditions in the country requesting assistance. The availability of loans can help countries ease the adjustment process and well-designed programs succeed in restoring stability. IMF lending is provided subject to conditionality. This invariably causes temporary hardship and makes the IMF unpopular in the countries where it provides assistance. With a properly designed program, however, the hardship imposed on the people of the country requesting assistance is smaller than conditions that would emerge without the involvement of the IMF.

IMF programs invariably prescribe fiscal austerity. An element of austerity is unavoidable to correct imbalances and restore long-term internal and external balance. Fiscal austerity tends to be among the most sensitive elements of an IMF program, and a source of both economic and political risk which could lead to the failure of a program. Austerity typically creates a political backlash against any government that implements a program – an expected consequence of countries plagued by populist politics. As a result, austerity beyond the breaking point of a

democracy becomes counterproductive for political reasons. The implementation of austerity also requires care because fiscal consolidation is a drag on short- and medium-term economic growth. Excessive austerity that leads to outsized drops in production becomes counterproductive for purely economic reasons.

Two additional factors required attention in the design of the Greek program, both consequences of the fact that Greece was a member of the euro area. First, the fixed nominal exchange rate vis-à-vis euro area partners ruled out exchange rate flexibility. As a result, more of the adjustment burden to regain competitiveness would need to fall on the internal devaluation channel – a relative decline in domestic prices and wages, compared to the rest of the euro area. This is a slower process than an adjustment with a weaker currency, suggesting that a successful IMF program might have required a more gradual fiscal adjustment process to avoid an austerity-induced collapse in economic activity.

A more vexing issue was a relatively high initial level of debt. One consequence of the flawed construction of the euro was that it created tremendous leeway for successive Greek governments to engage in deficit spending and accumulate a high level of debt before the crisis.<sup>5</sup> By the time Greece turned to the IMF for assistance, its debt had reached 115 percent of GDP.<sup>6</sup> Prior to the crisis, convergence of government bond yields across all euro area member states afforded all euro area governments a relatively low cost of financing of their debt.<sup>7</sup>

Given the relatively high initial debt level (for a country requesting IMF assistance), the IMF questioned the sustainability of Greek government debt. Had the IMF deemed the Greek government debt unsustainable, it would have required a restructuring at the start of the program.

---

<sup>5</sup> In large part, this was a consequence of lack of enforcement of the Stability and Growth Pact, whose rules had been relaxed to accommodate transgressions by the German and French governments in the early 2000s. The changes in the Pact encouraged a norm of deficit spending in most member states before the crisis.

<sup>6</sup> This is the estimate for the debt to GDP ratio for 2009 that was reported in the Staff Report on Request for Stand-By Arrangement (IMF (2010)), the document detailing the May 2010 program. With subsequent revisions to GDP and debt data, the IMF has revised the 2009 debt ratio to 126 percent (IMF (2015)).

<sup>7</sup> This was caused mainly by the decision of governments to give preferential regulatory treatment to all government debt throughout the euro area, and the perception that European governments would not allow sovereign defaults in the euro area, a perception which was encouraged prior to the crisis.

Following a restructuring that would ensure debt sustainability with high likelihood, a credible program would have demanded a fiscal consolidation and internal devaluation aiming to correct the fiscal and current account deficits, as well as reforms aiming to promote an increase in longer-run growth prospects. Following the disastrous experience with Argentina, the IMF introduced a stricter criterion in its lending framework. In addition to debt sustainability in a program's baseline scenario, IMF staff would need to assess that debt would remain sustainable with "high probability" for lending to proceed without a restructuring.

Since Greece was in the euro area, direct consultation with the IMF to design a suitable program without the involvement of other euro area member states, was ruled out. In the event, the French and German governments took a leading role in the design of the program that was imposed on Greece in May 2010.<sup>8</sup> This transformed what could have otherwise been an ordinary IMF program into an EU/IMF program, including partial financing by European governments.<sup>9</sup> Participation of European governments in the funding of the program also implied that the program had to be approved by individual governments of the euro area and in some cases, for example for Germany, be subject to parliamentary hearings and approval. As a result, local political considerations in other euro area member states were introduced into the design of the program for Greece.

On Sunday, May 9, 2010, the IMF Board approved the negotiated program. It provided for 110 billion euro of financing, 30 billion from the IMF and 80 billion from EU governments.

Two elements of the May 2010 program are noteworthy for this discussion: First, the determination that no restructuring of Greek debt was needed for its success. According to the pertinent IMF staff report published with the adoption of the program: "With disciplined program implementation, Greece's debt is expected to be sustainable in the medium

---

<sup>8</sup> The extent of the French and especially the German governments' involvement has not yet been explicitly acknowledged by the IMF but has been documented extensively over the past several years. *Blustein* (2015) even provides details of secret talks between a small group of IMF staff members and officials of the German and French Ministries during the design of the Greek program. He reports that the talks, which did not include representatives of the Greek government, were held outside IMF headquarters to avoid attracting attention.

<sup>9</sup> The framework for cooperation foresaw the IMF working with the European Commission, in liaison with the ECB. The three institutions became known as the Troika.

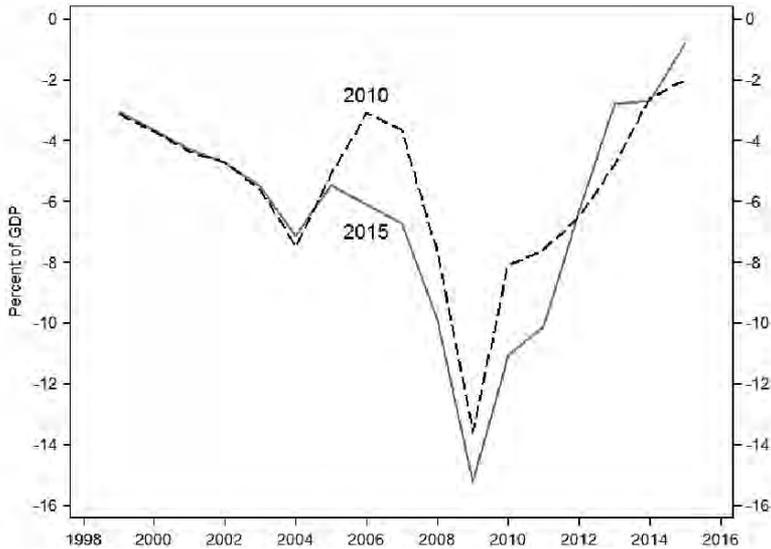
term, and its repayment capacity to be adequate” (IMF, 2010a, p. 20). Under the IMF baseline scenario, Greek debt was projected to rise from 119 percent of GDP in 2009 to 149 percent in 2013 and subsequently decline gradually to 120 percent by 2020. The staff could not assess that the debt would remain sustainable with “high probability.” The IMF Board circumvented this issue by introducing a “systemic exemption” to that criterion, and focused instead on the determination that debt would remain sustainable in the baseline scenario.

Second, the program called for an unprecedented fiscal adjustment of about 15 percentage points of GDP. The fiscal consolidation in the baseline scenario saw the primary balance improving from -8.6 percent of GDP in 2009 to +6 percent of GDP by 2014 and beyond. While the absence of exchange rate flexibility would have called for a more gradual fiscal correction, public opinion in Germany demanded harsher measures to facilitate parliamentary approval without discomfort for Chancellor Merkel’s government. From the German political perspective, as long as IMF staff could underwrite that the program could succeed, the harsher the austerity measures the better. Despite the severe austerity that the program imposed on Greece, the IMF deemed that the associated decline in economic activity would be relatively benign and short-lived. According to the baseline scenario, while output was expected to contract in 2010–11, growth was expected to subsequently recover and reach 2 ¾ percent in 2015.

Overall, IMF staff appraisal of the program was very positive. It was also full of praise for the Greek government: “The new Greek authorities have risen to the challenge by embarking on a bold multi-year program that is extraordinary in terms of the scale of planned adjustment and the comprehensiveness of reforms.” (IMF, 2010a, p. 22–23)

In the event, the Greek economy collapsed and the IMF/EU program failed. An autopsy of the failure is useful to determine why. To that end, Figures 5–9 compare the baseline scenario of the May 2010 program with subsequent outcomes of some key indicators. Data and forecasts for the baseline scenario of the program are taken from the pertinent IMF staff report, published in May 2010 (IMF, 2010). Outcomes are taken from the latest available IMF World Economic Outlook, published in April 2015 (IMF, 2015).

Figure 5 compares the projected and actual paths of the government deficit, the most important indicator of Greece’s implementation of the program. The comparison suggests that, by and large, the austerity im-

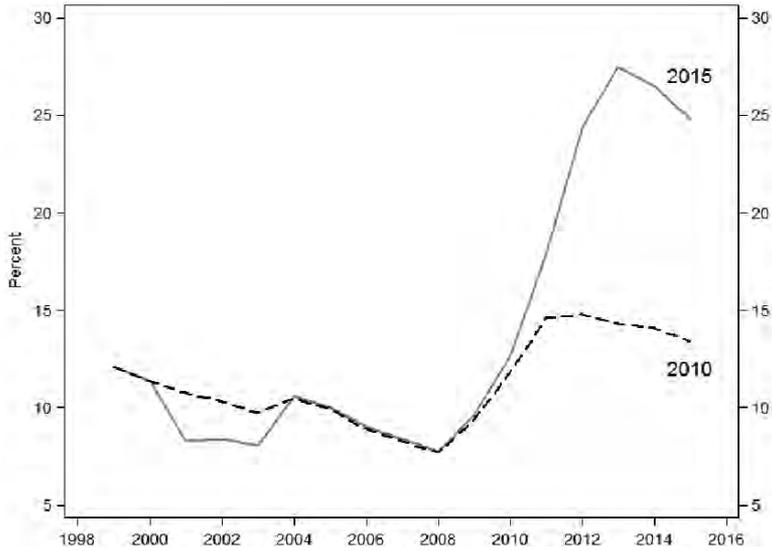


Notes: Annual data and projections. 2010 series reflects May 2010 program, as published at the time. 2015 series reflects data from April 2015 World Economic Outlook.

Figure 5: Greece: Deficit to GDP Ratio

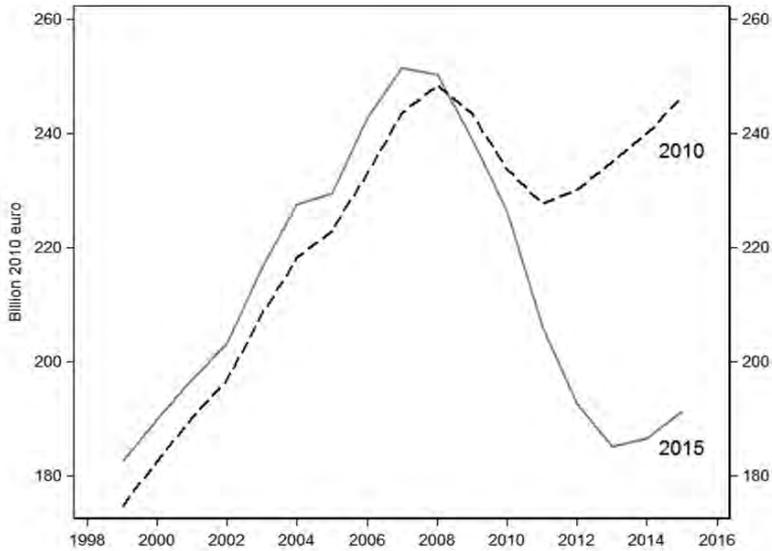
posed on Greece was implemented by Greek authorities as planned. Figures 6 and 7, however, show that this fiscal austerity was not accompanied by the relatively benign recession envisioned in the program. Rather than peak at around 15 percent, as assumed in the program, the unemployment rate jumped to over 25 percent. Rather than return to growth in 2012, real GDP continued to decline. Measured in 2010 euro, the path of actual real GDP has stayed about 50 billion per year below the projections of the 2010 program. The cumulative output loss so far is about a full year's GDP. A corresponding deviation is also documented in a comparison of the projected and actual paths of nominal GDP, shown in Figure 8. Finally, as a consequence of the massive collapse in production, the debt to GDP ratio projections proved to be wide of the mark (Figure 9).

Figure 9 also shows an interesting characteristic of a subsequent disastrous decision imposed by euro area governments and the IMF on Greece. This was the selective default on Greek debt in 2012 which was imposed on Greece by euro area governments at the insistence of the German government once the failure of the May 2010 program became clear. An interesting feature is that the restructuring of the debt in 2012 was so ill-designed that, as shown in the figure, it caused the debt to GDP ratio



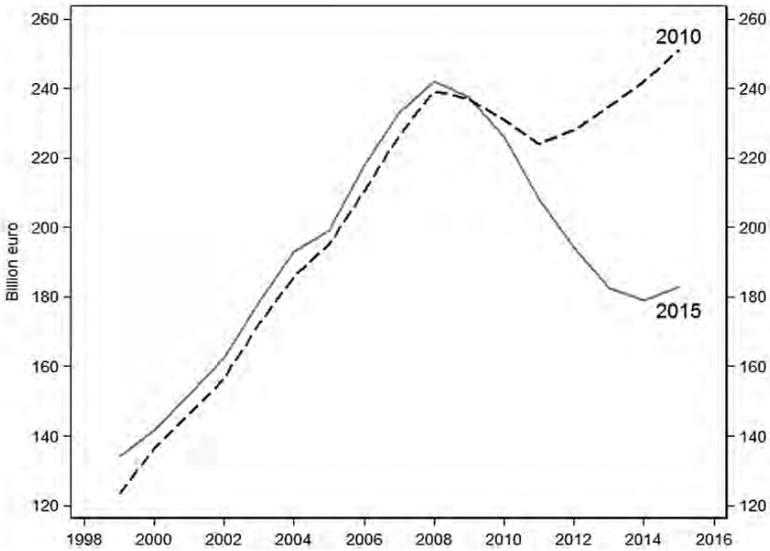
Notes: Annual data and projections. 2010 series reflects May 2010 program, as published at the time. 2015 series reflects data from April 2015 World Economic Outlook.

Figure 6: Greece: Unemployment Rate



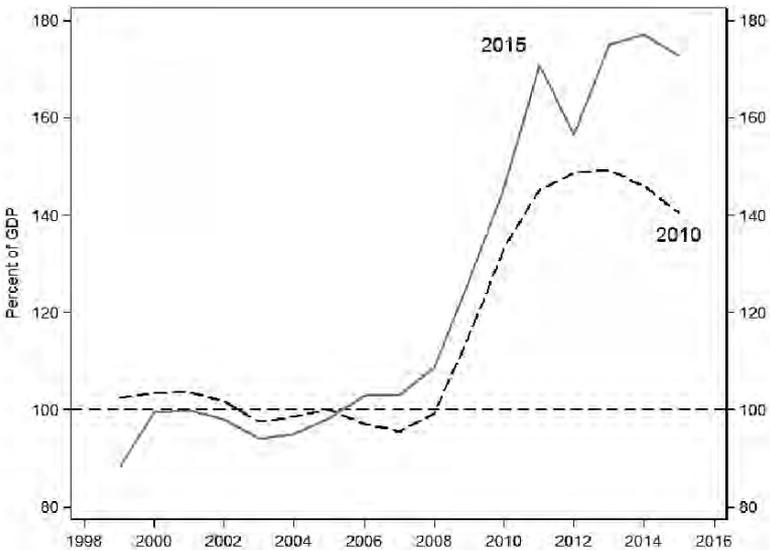
Notes: Annual data and projections. 2010 series reflects May 2010 program, as published at the time. 2015 series reflects data from April 2015 World Economic Outlook.

Figure 7: Greece: Real GDP



Notes: Annual data and projections. 2010 series reflects May 2010 program, as published at the time. 2015 series reflects data from April 2015 World Economic Outlook.

Figure 8: Greece: Nominal GDP



Notes: Annual data and projections. 2010 series reflects May 2010 program, as published at the time. 2015 series reflects data from April 2015 World Economic Outlook and includes the effect of the 2012 restructuring.

Figure 9: Greece: Debt to GDP Ratio

to increase rather than decline. Needless to say, with a reading close to 180 percent of GDP for 2015, the sustainability of the debt projections presented by the IMF as of April 2015 is justifiably in doubt.

## V. Alternative Narratives

What explains the massive failure of the IMF/EU program and how has this failure been presented in Europe? An important aspect of the on-going tragedy in Europe has been the political manipulation of reality by politicians trying to shape public opinion in a manner favorable to their personal interests and political aspirations. In democracies, crises offer fertile ground for demagoguery.

A common characteristic in the narratives presented by politicians in different member states who have a stake in government is the desire to avoid blame and, to the extent possible, shift blame to others. The competing narratives, developed and promoted by politicians in different countries, have served to generate tremendous animosity and mistrust among the people of Europe.

To highlight differences, it is instructive to contrast stylized alternative narratives of the Greek disaster and ways forward, meant to summarize recent views associated with supporters of Chancellor Merkel's government in Berlin and prime-minister Tsipras' government in Athens.<sup>10</sup>

According to the Berlin narrative:

- German taxpayer money has been financing Greek profligacy since 2010.
- Greek governments since 2010 have consistently failed, despite the generous support provided by Germany.
- Greek governments must engineer further austerity measures so they can honor their commitments or else Greece does not belong in the euro.

---

<sup>10</sup> Alexis Tsipras became prime minister of a radical leftist government in Greece by winning the parliamentary election held on January 25, 2015. The election result was widely interpreted as a protest vote against the Troika mandated policies followed by previous government since May 2010. He was the fifth prime minister of Greece in five years, indicative of the political instability caused by the failed May 2010 IMF/EU program.

According to the Athens narrative:

- Germany exploited its power to block an ordinary IMF program and instead supported a plan of action that imposed excessive debt on the Greek people.
- The austerity policies forced on Greece by the German government through the Troika have pushed Greece into a debt trap.
- The German government should accept its responsibility and agree to a compromise that eases the debt burden of Greece.

Who is right? Arguably, there are elements of truth as well as distortions in both narratives. For example, the fact that Greek governments have implemented the austerity foreseen in the 2010 program, as shown in Figure 5, suggests that pinning all the blame for the failure on Greece is misplaced and raises questions about the design of the program. Given that the German government had insisted on imposing unprecedented austerity on Greece in 2010, there is at least some merit to the argument that Germany is partially responsible for the resulting debt trap that emerged in Greece. On the other hand, Greek governments agreed to implement the 2010 program and subsequent decisions, and have been governing the country throughout this period. In addition, there were elements of the program beyond austerity that were not implemented as faithfully and might also have affected the outcome.

If the Greek government broadly honored its fiscal consolidation commitments, why did the program fail? Was it bad luck or was the program doomed to fail from the start? If the program was doomed to fail, was this risk understood by its proponents, or was the flaw an outcome of bad analysis, reflecting an honest error in judgment? Did other considerations enter the program's design, beyond the elements encountered in an ordinary IMF program?

## VI. What Was the Troika Program About?

What caused the original sin? An interview with former Bundesbank President *Karl Otto Pohl*, published by Spiegel on May 18, 2010, just one week after the Troika program was decided, provides a troubling answer. *Pohl* expressed serious doubts of the wisdom of the design of the May 2010 Greek program. He questioned the IMF's assessment that the program would succeed as designed and the associated judgment that Greek debt was sustainable. In his view, the debt was unsustainable and a bet-

ter approach to resolve the Greek crisis would have included a restructuring of the Greek debt which would have also lightened the burden imposed on the Greek people. Similar views were expressed by other observers and analysts at the time.<sup>11</sup>

Asked about the program, *Pohl* disputed official explanations that had been advanced by Chancellor Merkel's government about its rationale and observed: "It was about protecting German banks, but especially the French banks, from debt write offs," (*Pohl*, quoted in Reuter (2010)). This was a startling and controversial statement.

It was widely known at the time that euro area financial institutions, in particular German and French banks, were greatly exposed to Greek sovereign debt. On May 7, 2010, Bloomberg had reported that according to BaFin, the German financial regulatory agency, German financial institutions alone held 43.4 billion euro of Greek government debt (*Kirchfeld* (2010)). On May 8, 2010, the Financial Times had reported that German and French banks and insurance groups together held just under 80 billion euro of Greek government debt (*Oakley* (2010)). A restructuring of Greek debt would have forced significant losses on these institutions. Furthermore, a restructuring of Greek debt could have led to contagion, reducing the market value of the debt of other euro area member states that was held in large volume by German and French financial institutions.

Views varied regarding the desirability of imposing losses on the private sector as a means to resolve the Greek crisis. Some argued that imposing such losses was desirable to avert moral hazard by the banks. A key reason why Greek governments had been able to run irresponsible deficit-financed populist policies prior to the crisis was the strong appetite for Greek debt by German and French financial institutions, in particular. In Germany, public opinion was supportive of "punishing" behavior that could be painted as "irresponsible" and Chancellor Merkel's government appeared to be supportive of rhetoric along these lines. But would the German government encourage a plan that imposed losses on German banks or was the anti-bankers rhetoric simply meant to attract positive public opinion? The strong appetite for Greek debt by euro area banks had been induced by the euro area governments themselves. The regulatory framework that had been created by the governments treated all euro area sovereigns as zero-risk-weight assets, from a capital re-

---

<sup>11</sup> These include *Buiter* (2010), *Eichengreen* (2010), *Kirkegaard* (2010), *Mussa* (2010), *Wolf* (2010), and *Wyplosz* (2010).

quirement perspective, and exempted them from regulations regarding large exposures.<sup>12</sup> Furthermore, given existing concerns about the fragility of financial institutions in Europe in the aftermath of the global financial crisis, it would be unwise to impose losses on them that might trigger financial instability.

A Greek program that did not involve a restructuring of Greek government debt would have protected German and French financial institutions from losses. To the extent this was just a beneficial side effect of a well-designed program for Greece that did not require debt restructuring this would have not been objectionable. But Pohl's remark suggested that protecting the French and German banks was not a side effect but rather the central objective of the design of the Greek program. Did European governments intervene against the restructuring of Greek debt to protect specific banks from losses? This concern had been raised already three months before the May 2010 program was finalized. As *Charles Wyplosz* (2010) put it on February 4: "Rumour has it that some large German and French banks have a significant exposure to Greek debt. ... France and Germany can allow Greece to default, but not some big, systemically important European banks." Beyond Europe, and regardless of the objectives of the French and German governments, equally troubling questions could be raised about the role of the IMF. Could an IMF program have been deliberately designed, not to help Greece, the country that had sought IMF assistance, but rather other interests?

## VII. IMF Mischief?

In June 2013, the IMF published an ex post evaluation of the failed May 2010 program that provided a valuable assessment of what had gone wrong (IMF, 2013b). The report pointed to critical technical errors such as overly optimistic assumptions: "the baseline macro projections can also be criticized for being too optimistic."<sup>13</sup> An implication was that the

---

<sup>12</sup> This continues to be the regulatory framework in Europe, even after recent revisions in the Capital Requirements Directive and despite the decision by euro area governments to impose a haircut on Greek debt in 2012. Bundesbank President *Jens Weidmann* (2013) observed that this may be a case of the "principle of unripe time."

<sup>13</sup> This had been preceded by an important unofficial admission of error, in the form of a working paper co-authored by the Chief Economic Councilor. *Blanchard/Leigh* (2013) reported that the fiscal multipliers assumed in projecting the response of output to austerity by the IMF during the crisis had been too

original assessment that debt would remain sustainable in the baseline scenario was incorrect. However, the report noted that IMF staff had made clear from the outset that risks were such that debt was “not judged to be sustainable with high probability” which would have recommended ex ante debt restructuring. Instead, the report noted that debt restructuring was “ruled out by the euro area.” A “systemic exemption” was introduced to the lending framework as a justification. One reason cited for avoiding a restructuring was that “restructuring risked contagion to other members of the Eurozone.” Another was that a “rescue package for Greece that incorporated debt restructuring would likely have difficulty being approved, as would be necessary, by all the euro area parliaments.” In the event, according to the report, the program served as a “holding operation” that “gave the euro area time to build a firewall to protect other vulnerable members and averted potentially severe effects on the global economy.” Among possible lessons, the report noted that:

“Earlier debt restructuring could have eased the burden of adjustment on Greece and contributed to a less dramatic contraction in output. The delay provided a window for private creditors to reduce exposures and shift debt into official hands. This shift occurred on a significant scale and left the official sector on the hook.” (IMF, 2013b, p. 33)

Indirectly, the IMF’s assessment admitted that had Greece not been in the euro area, the May 2010 program would have included a debt restructuring, less severe austerity and a less dramatic recession. Instead, this was “ruled out by the euro area,” providing private creditors the time needed to “shift debt into official hands” which burdened even more the Greek people.

The report did not explain which government(s) in the euro area ruled out the restructuring. In addition, it did not explain who had benefited the most by deviating from the prevailing framework nor whether the catastrophic consequences for Greece were understood at the time.

Additional information that shed light on these questions became available in October 2013, when the Wall Street Journal published confidential documents reporting details of the May 9, 2010 IMF Board meeting (Wall Street Journal (2013), *Catan/Talley* (2013)). The details revealed severe disagreements among IMF board members and a thorough understanding of the adverse implications of the program for Greece, suggesting that the IMF knew that the program was doomed to fail.

---

small, which implied the underestimation of the recessionary consequences of austerity.

Interventions at the meeting by members of the Board outside the euro area are characteristic. According to the Wall Street Journal, India's executive director, remarked:

"The scale of the fiscal reduction without any monetary policy offset is unprecedented ... [It] is a mammoth burden that the economy could hardly bear. Even if, arguably, the program is successfully implemented, it could trigger a deflationary spiral of falling prices, falling employment, and falling fiscal revenues that could eventually undermine the program itself. In this context, it is also necessary to ask if the magnitude of adjustment ... is building in risk of program failure and consequent payment standstill ... There is concern that default/restructuring is inevitable." (*Arvind Virmani* quoted in WSJ (2013))

The intervention of Brazil's executive director all but confirmed what *Karl Otto Pohl* publicly identified a few days later as the true objective of the program:

"The risks of the program are immense ... As it stands, the program risks substituting private for official financing. In other and starker words, it may be seen not as a rescue of Greece, which will have to undergo a wrenching adjustment, but as a bailout of Greece's private debt holders, mainly European financial institutions." (*Paulo Nogueira Batista* quoted in WSJ (2013))

And Argentina's executive director concluded that Greece would likely end up worse off as a result of the program:

"The alternative of a voluntary debt restructuring should have been on the table ... The European authorities would have been well advised to come up with an orderly debt restructuring process. The bottom line is that the approved strategy would only have a marginal impact on Greece's solvency problems ... It is very likely that Greece might end up worse off after implementing this program." (*Pablo Andrés Pereira* quoted in WSJ (2013))

Since so many members of the IMF Board had recognized that the program was doomed to fail and likely cause harm to Greece while benefiting German and French banks, why was the program approved?

One possible answer is the outsized influence of the governments of the largest euro area member states in managing the IMF. By tradition, since the founding of the IMF, the Managing Director has always been selected from a European nation. Since the creation of the euro in 1999 all Managing Directors came from one of the largest euro area member states. In 2010 Managing Director was a French politician, Dominique Strauss-Kahn, who was widely expected to be a leading candidate in the French Presidential election scheduled for 2012.<sup>14</sup>

---

<sup>14</sup> Following his resignation in 2011, he was replaced by yet another French politician, Christine Lagarde, who had served as Finance Minister of France when the failed IMF/EU program for Greece was designed.

Another possible answer is that the euro area governments that had shaped the program may have given reasons at the meeting that made it appear more palatable. An internal IMF memorandum about the meeting that was disclosed in *El Pais* on February 1, 2014 is suggestive (*Doncel* (2014)). According to the memorandum, although debt restructuring had been ruled out, an informal agreement had been reached between some euro area governments and banks for a contribution by the banks to the financing of the program.

“The Dutch, French, and German chairs conveyed to the Board the commitments of their commercial banks to support Greece and broadly maintain their exposure.” (IMF, 2010b)

Effectively, the German, French and Dutch governments communicated an informal commitment that, if honored, would have strengthened the odds of success of the program.

For the German government, in particular, the ability to claim that banks were somehow contributing to the Greek program had political benefits as it aligned with public sentiment that “irresponsible” banks should be “punished” and deflected attention from the unpopular contribution of the governments – that is taxpayer money – to management of the crisis. On May 7, 2010, while the German parliament was debating Germany’s role in the Greek program, Bloomberg reported that the German Finance Ministry had announced that:

“German financial companies including Deutsche Bank AG and Allianz SE agreed to provide 8.1 billion euros in financing to Greece to bolster the debt-stricken nation.” (*Kirchfeld* (2010))

The Ministry explained that German financial companies would replace maturing bonds with new purchases and replace expiring credit lines with new financing over the subsequent three years – the duration of the Greek program.<sup>15</sup> In addition to the companies that had agreed to provide support to the Greek government, all other German credit institutions and insurers were encouraged “to provide a contribution to positively help Greece’s adjustment process.”

Reality proved to be quite different. Once the Troika program was approved and the restructuring of their holdings of Greek debt avoided, German and French banks started to quietly sell their holdings of Greek government debt. This included German financial institutions that had

---

<sup>15</sup> Deutsche Bank’s CEO – Josef Ackerman, was reported as having spearheaded “private-sector fundraising” to help Greece.

been specifically named by the German Finance Ministry as having agreed to “positively help Greece’s adjustment process.”

Available information suggests that IMF management was fully aware that the Greek program approved by the IMF Board on May 9, 2010 was doomed to fail and already planned for subsequent modifications. On May 13, 2010, IMF Managing Director Dominique Strauss-Kahn communicated to a representative of the Greek government that the program needed to be extended beyond the three-year horizon foreseen in the agreement and, critically, that a restructuring of the debt should be considered.<sup>16</sup> That is, at the same time IMF management was changing the lending rules so that the program imposed on Greece would not include a restructuring, the Managing Director himself was preparing just that, but for a later time.

Overall, the information that has become available over the past five years raises doubts about the independence and integrity of the process leading to the underwriting of the program by IMF staff, including the baseline macroeconomic projections and the associated determination that Greek debt was expected to be sustainable. It strongly suggests that the failure of the May 2010 IMF/EU program was not accidental and confirms concerns that had been expressed at the time that the program had been deliberately designed not to help Greece, the country that had sought IMF assistance, but primarily to serve other interests. The German and French governments used their leverage to guide a process that avoided a restructuring of Greek debt that would have led to substantial losses by German and French financial institutions. They secured support by other governments and the approval of a flawed program by the IMF Board, despite vocal objections. Subsequently, the German and French governments failed to honor commitments apparently communicated to the IMF Board in the process of securing the Board’s approval for the program.

### VIII. The Systemic Exemption

The original sin of the crisis would not have been possible, had the IMF not circumvented its own established rules by introducing a “systemic exemption” to its lending framework. One of the criteria for IMF lending

---

<sup>16</sup> Details of this and other meetings are recounted in a book published in 2012 by *Panayiotis Roumeliotis*, who had served as the representative of the Greek government at the IMF at the time. (*Roumeliotis* (2012), p. 147–148)

under the existing framework when Greece sought assistance was that “a rigorous and systematic analysis indicates that there is a high probability that the member’s debt is sustainable in the medium term.” Since IMF staff could not assess that Greek debt would remain sustainable “with high probability” this criterion was not met. But, at the insistence of the German and French governments, the IMF proceeded with a program that ruled out debt restructuring. To achieve this, the IMF created an exemption to the “high probability” requirement for assessing sustainability when it deemed that “there is a high risk of international systemic spillovers.” (IMF, 2013a) This exemption provided the IMF with wide discretion in deciding when to follow and when to circumvent its own rules. It also highlighted that earlier safeguards that were meant to promote good practices in IMF lending had failed (*Schadler* (2013)).

Was the systemic exemption a mistake? Should the IMF have insisted on the restructuring of Greek debt at the outset of the program, instead of invoking this exemption?

The answer is not straightforward. Ultimately, it depends on the objectives of the program. If the objective was to help Greece, the country that had requested assistance, then the answer is simple. Instead of the adopted program, the IMF should have insisted on a program that included a restructuring of the debt. In his May 2010 *Spiegel* interview, *Karl Otto Pohl* argued that Greek debt should have been restructured to reduce it by one third. Using this as an example, we can make some informative comparisons with the adopted program. According to the Bruegel dataset of sovereign bond holdings (*Merler/Pisani-Ferry* (2012)), at the end of 2009 Greek sovereign debt outstanding amounted to 273 billion euro, of which only one quarter was held in Greece. The other three quarters, about 203 billion, was held outside the country, mostly by financial institutions in Europe. A reduction by a third would have eased the debt burden by over 90 billion euro. This is greater than the contribution of the EU in the adopted EU/IMF program. Even if the Greek government used some of the proceeds to compensate losses to domestic residents, and thus benefited fully only from the restructuring of foreign-held debt, the debt burden would have been reduced by at least 67 billion euro.

Had a restructuring of this magnitude been implemented in early 2010, the IMF could have financed the Greek program without the involvement of EU governments. The incentives to design a program doomed to fail would have been removed. Greece would have been better off.

However, the risk of contagion associated with a restructuring should not be easily dismissed. The banking system in a number of euro area member states, importantly Germany, remained fragile in the aftermath of the global financial crisis. In addition to the direct hit on bank capital imposed by a restructuring of Greek debt, an indirect hit would be expected on holdings of bonds of other euro area member states whose prices would be expected to register significant declines.

The loss for the euro area as a whole would likely have exceeded the total benefit expected to accrue to Greece from the restructuring. Some banks would have collapsed. As an example, consider the case of Hypo Real Estate (HRE), a bank that had been bailed out by Chancellor Merkel's government earlier in the crisis and had been nationalized in 2009. At the time, HRE had exposures of about 10 billion euro in Greece, including 8 billion euro of Greek government debt. But it also had exposures of 58 billion euro in Spain, Portugal and Italy combined (*Oakley* (2010)). If a restructuring by one third on Greek debt led to a 10 percent drop in the value of holdings in Spain, Portugal and Italy, the indirect hit on the value of HRE's assets would have exceeded the direct loss due to the restructuring. The combined losses would have necessitated another bailout for HRE, with quite adverse economic and political implications in Germany.<sup>17</sup> Given the widespread anti-bank sentiment, a second bailout of HRE, while HRE was already under the management of Chancellor Merkel's government, could have generated such public outcry to amount to political suicide for Chancellor Merkel.

If a key objective of the Greek program was to protect the euro area as a whole from the expected contagion-induced losses that would be associated with a restructuring, then invoking a systemic exemption to allow the Greek program to proceed without a restructuring was not necessarily a mistake. However, this does not imply that the adopted program was the proper solution.

Returning to the basics of crisis management, recall the key question: Who pays? The distribution of losses matters. From a distributional perspective, Greece should not have been forced to bear the additional cost associated with deviating from the IMF's established procedures, even if the deviation was desirable from an efficiency perspective for the euro

---

<sup>17</sup> *Blundell-Wignall/Slovik* (2011) present informative comparisons of the exposures and vulnerabilities of individual banks to periphery sovereigns. In Germany, the biggest risks appeared in state-controlled banks.

area as a whole. If efficiency demanded that the IMF deviate from its normal guidelines on the Greek program to reduce losses on stakeholders in other member states, these other member states should have been asked by the IMF to compensate Greece so as to avoid forcing the country to bear the additional cost.

For concreteness, consider again Karl Otto Pohl's proposal to reduce Greek debt by one-third which, counting only the debt held outside Greece, would have reduced the Greek debt outstanding by 67 billion euro. Rather than rule out the restructuring and shift the burden to the Greek people, the IMF could have given other euro area governments a choice. Pay 67 billion euro in exchange for deviating from the rules and avoiding a restructuring, or come to terms with the consequences of the restructuring which would proceed according to the established rules.

The mistake committed by the IMF in May 2010 was not the introduction of a "systemic exemption" to its lending framework per se. In May 2010, the risk of contagion constituted a legitimate concern for the euro area as whole. The real mistake was that the IMF allowed the "systemic exemption" to be used as a pretext for shifting crisis-related losses from stakeholders in other euro area member states – importantly German and French financial institutions – to the Greek people.<sup>18</sup>

The original sin was to compromise the IMF's rules-based lending framework to create room for discretion that could be exploited by certain euro area governments to serve their own narrow interests to the detriment of the country that had requested assistance, and ultimately to the detriment of the euro area as a whole. The original sin created an unfortunate precedent that guided IMF decisions regarding the euro area crisis under the direction of both Dominique Strauss-Kahn and Christine Lagarde. As former IMF official *Ousmène Mandeng* put it later: "key IMF programme decisions are taken outside the fund" (*Mandeng* (2013)). Under Dominique Strauss-Kahn and Christine Lagarde, the credibility and effectiveness of the IMF were severely compromised.

---

<sup>18</sup> The IMF has acknowledged that the systemic exemption is "perceived to be inequitable and excessively open-ended" and has been reviewing possible reforms to its lending framework. (IMF (2014))

### **IX. Who Is to Blame for the Disaster in Greece?**

There is no denying that Greek government policies started the problem in Greece. By 2010, sizeable imbalances had developed, the country lived beyond its means and a correction was needed. Flaws in the construction of the euro amplified the problem by allowing excesses to get bigger than would have been feasible outside the euro area before the crisis.

Whatever the reasons for the failure in Greece after it joined the euro, the problem Greece faced in early 2010 was not unusual, when compared to problems of other countries that turn to the IMF for help. Had the governments of key euro area member states not interfered with the process, and had the IMF designed a program for Greece that respected its own rules, the crisis in Greece would almost surely have been resolved long ago without the destruction observed over the past five years.

Instead, a program that was known to be doomed to fail was imposed on Greece. Prevailing rules were not respected. New rules were devised and implemented to protect specific interests outside Greece. The program succeeded in protecting German and French financial institutions from financial losses and Chancellor Merkel's government from political cost but led to a catastrophe in Greece.

Uncomfortable questions remain:

- What is the responsibility of other euro area governments?
- What is the responsibility of European institutions?
- Who should bear the cost of the catastrophe in Greece?

### **X. A Threat to Europe**

Five years after the original sin, the collapse of Greece is continuing. The crisis in Greece is a symptom of a wider problem. Member states that joined the euro area relinquished national crisis management tools. This makes euro area member states perceived as weak exceptionally vulnerable to exploitation by member states perceived as strong. The ease with which the euro was exploited to shift crisis-related costs from one member state to another in May 2010 created a precedent that dominated throughout the euro area crisis. The precedent invited exploitation of the weak by the strong, violating fundamental principles

and European ideals and creating resentment and mistrust among the people of Europe.

The IMF could have helped contain the crisis and resolve it effectively. Instead, undue influence of key euro area governments on the IMF rendered the role of the IMF counterproductive.

Five years after the original sin, the European establishment continues to be in denial of the true nature of the euro area crisis. No effort has been made to stop governments in one state from inflicting harm to other states. No effort has been made to compensate those who have been wronged by the exploitation that has already taken place. The ongoing mismanagement of the crisis has generated winners and losers, both among member states and among politicians in various member states. The current framework has encouraged conflict over cooperation. This has proven disastrous for the euro area as a whole and ultimately for Europe.

In its current form, the euro poses a threat to the European project.

### References

- Ball, Laurence* (2014): Long-Term Damage from the Great Recession in OECD Countries. NBER Working Paper No. 20185, May.
- Bini-Smaghi, L.* (2013): Austerity: European democracies against the wall, CEPS, Brussels.
- Blanchard, O./Leigh, D.* (2013): Growth Forecast Errors and Fiscal Multipliers, IMF Working Paper, WP/13/1, January.
- Blundell-Wignall, A./Slovik, P.* (2011): A Market Perspective on the European Sovereign Debt and Banking Crisis, OECD Journal: Financial Market Trends, 2010(2).
- Blustein, P.* (2015): Laid Low: The IMF, the euro zone and the first rescue of Greece. CIGI papers, No. 61, April.
- Buiter, W.* (2010): "Greek Sovereign Debt Restructuring Delayed but Not Avoided for Long," Citi Economics, Global Economics Flash, 5 May.
- Catan, T./Talley, I.* (2013): Past Rifts Over Greece Cloud Talks on Rescue. Wall Street Journal, October 8.
- Doncel, L.* (2014): Berlín y París incumplen con Grecia. El País, February 1. (In Spanish)
- Dornbusch, R.* (1996): Euro Fantasies, Foreign Affairs, September/October 1996.
- Eichengreen, B.* (2010): It is not too late for Europe. VOX, CEPR's Policy Portal, May 7.

- (2015): *Hall of Mirrors: The Great Depression, the Great Recession, and the Uses – and Misuses – of History*, Oxford University Press.
- Feldstein, M.* (1997): The Political Economy of the European Economic and Monetary Union: Political Sources of an Economic Liability. *Journal of Economic Perspectives*, 11(4), fall.
- Friedman, B.* (2014): A predictable pathology. Keynote address prepared for the Bank for International Settlements conference on “Debt,” Lucerne, June 26, 2014.
- Friedman, M.* (1997): The Euro: Monetary Unity To Political Disunity? Project Syndicate, August 18.
- International Monetary Fund* (2010a): Greece: Staff Report on Request for Stand-By Arrangement. May 5.
- (2010b): Board meeting on Greece’s request for an SBA – May 9, 2010. Office Memorandum May 10.
- (2013a): Sovereign Debt Restructuring – Recent Developments and Implications for the Fund’s Legal and Policy Framework, April.
- (2013b): Greece: Ex Post Evaluation of Exceptional Access under the 2010 Stand-By Arrangement. IMF Country Report No. 13/156, May.
- (2014): The Fund’s Lending Framework and Sovereign Debt – Preliminary Considerations. Staff Report, May.
- (2015): World Economic Outlook. Washington DC, April.
- Issing, O.* (2010): It Has Happened – And It Will Continue to Succeed. *Econ Journal Watch*, 7(1), January.
- Jonung, L./Drea, E.* (2010). It Can’t Happen, It’s a Bad Idea, It Won’t Last: U.S. Economists on the EMU and the Euro, 1989–2002. *Econ Journal Watch*, 7(1), January.
- Kirchfeld, F.* (2010): German Banks, Insurers Give EU8.1 Billion for Greece, Bloomberg, May 7.
- Kirkegaard, J.* (2010): A default by Greece: Why and When? *PIIE RealTime Economic Issues Watch*, May 16.
- Krugman, P.* (1998): The Euro: Beware of What You Wish for. *Fortune*, December.
- Mandeng, O.* (2013): The IMF must quit the troika to survive. *Financial Times*, April 17.
- Merler, S./Pisani-Ferry, J.* (2012): Who’s afraid of sovereign bonds. *Bruegel Policy Contribution 2012|02*, February.
- Mussa, M.* (2010): Beware of Greeks Bearing Debt, May 17.
- Oakley, D.* (2010): Default insurance costs soar for banks. *Financial Times*, May 8.
- O’Rourke, K./Taylor, A.* (2013): Cross of Euros. *Journal of Economic Perspectives*, 27(3), summer, p. 167–192.

- Orphanides, A.* (2014): "The euro area crisis: Politics over economics." *Atlantic Economic Journal* 42(3), September.
- Pisani-Ferry, J.* (2014): *The Euro Crisis and Its Aftermath*, Oxford University Press.
- Reuter, W.* (2010): Former Central Bank Head Karl Otto Pöhl Bailout Plan Is All About 'Rescuing Banks and Rich Greeks.' *Spiegel*, May 18.
- Roumeliotis, P.* (2012): *The Unknown Backdrop of the Request for IMF Assistance: How and Why We Arrived at the Memorandum*. Livani, Athens. (In Greek)
- Schadler, S.* (2013): *Unsustainable Debt and the Political Economy of Lending: Constraining the IMF's Role in Sovereign Debt Crises*. CIGI Papers No. 19, October.
- Soros, G.* (2014): *The tragedy of the European Union: Disintegration or Revival*. Public Affairs, New York.
- Temin, P./Vines, D.* (2013): *The leaderless economy: Why the World Economic System Fell Apart and how to Fix It*. Princeton University Press, Princeton.
- Wall Street Journal* (2013): IMF Document Excerpts: Disagreements Revealed, October 7.
- Waterfield, B.* (2013): EU put eurozone safety before Greece during bailout, IMF report claims. *Telegraph*, June 5.
- Weidmann, J.* (2013): Stop encouraging banks to buy government debt. *Financial Times*, September, 30.
- Wolf, M.* (2010): A bail-out for Greece is just the beginning. *Financial Times*, May 4.
- (2014): *The Shifts and the Shocks: What We've Learned-and Have Still to Learn-from the Financial Crisis*, Penguin Press.
- Wyplosz, C.* (2010): My big fat Greek conspiracy theory. *Financial Times*, February 5.
- (2014). The Eurozone crisis: A near-perfect case of mismanagement. *Economia Marche Journal of Applied Economics*, XXXIII (1): 1-13.