CHAPTER 7

The IMF's Role in Greece in the Context of the 2010 Stand-By Arrangement

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Introduction

In April 2010, Greece became the first euro area country to request financial support from the IMF. The IMF joined the European Commission (EC) and the European Central Bank (ECB)—thus constituting what informally came to be known as the troika—in providing emergency financing, with the Fund's contribution taking the form of a €30 billion three-year Stand-By Arrangement (SBA) approved in May. This was canceled and replaced in March 2012 by a four-year arrangement under the Extended Fund Facility (EFF).

With the decision to engage in an exceptional-scale, multi-year financial assistance program for Greece, the IMF embarked on an unprecedented venture. This was the first time since World War II that an advanced, financially developed, and financially open economy had attempted to adjust within a currency union. Other countries (such as St. Kitts and Nevis, Benin, and Burkina Faso) had adjusted within a currency union, but they were far less financially integrated. This was also the first instance since the mid-1970s of IMF financial assistance to a country using a reserve currency.

Access to Fund resources was the largest in IMF history (Figure 7.1). The loan itself, at more than 3,200 percent of Greece's IMF quota, was the largest non-precautionary Fund arrangement ever approved relative to quota. Indeed, by the start of the program, Greece had built up much larger imbalances than was typical in countries that had sought IMF assistance, and unlike in many IMF programs the official assistance provided was intended to substitute entirely for markets in financing sovereign borrowing needs (Pisani-Ferry and others, 2013).

A new pattern for cooperation was established. Not only was Greece a developed economy belonging to a monetary union, but the adjustment program was implemented at a time when both the euro area and the global

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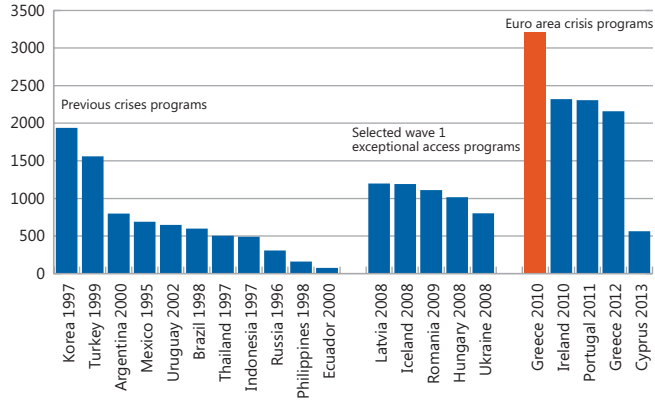
Figure 7.1. Access to IMF Resources

(*Percent of quota at time of program approval*)



Source: IMF, Monitoring of Fund Arrangements (MONA) Database.

economy were undergoing a severe financial crisis and the euro area still lacked "firewalls" to prevent financial contagion. The implementation of the Greek program thus involved intense collaboration with the regional partners who were also providing conditional financial assistance. The modalities of assistance had to be established in real time in the midst of the crisis, in close cooperation between the European institutions and the IMF.

The constraints imposed by the unique circumstances, and the scale of financial commitments, raise important questions about the modalities of the IMF's engagement and the design of the program. The IMF's involvement in Greece has been extensively analyzed by numerous academic experts and official bodies, including the IMF.[1] For example, the IMF's ex post evaluation of Greece's 2010 SBA (IMF, 2013c) concluded that while the IMF-supported program succeeded in achieving strong fiscal consolidation and in allowing Greece to remain in the euro—with relatively well-contained spillovers on the

[1] For official evaluations of the IMF's role in the Greek crisis, see the European Parliament Report (Karas and Ngoc, 2014); the Policy Note underpinning the European Parliament Report (Sapir and others, 2014); the report by the European Court of Auditors (ECA, 2015a, 2015b); and the IMF's ex post evaluation for the 2010 SBA (IMF, 2013c). Accounts of negotiations behind important decisions in the context of the Greek crisis include: Walker, Forelle, and Blackstone (2010a, 2010b); Walker and Forelle (2011); Bastasin (2012); Irwin (2013); Spiegel (2014); and Blustein (2015). Articles from academic institutions and think tanks include: Pisani-Ferry (2011); Tsoukalis (2011); Pisani-Ferry, Sapir, and Wolff (2013); Panagiotarea (2013a); Palaiologos (2014); Pelagidis and Mitsopoulos (2014); and Xafa (2014). Generally, the literature has been quite critical of the IMF's handling of the Greek crisis: see for instance, Warner (2011); Seitz and Jost (2012); Panagiotarea (2013a); Sterne (2014); Palaiologos (2015); Donnan (2015); Lee (2015); Ito (2015); El Erian (2015); Wroughton, Schneider, and Kyriadikou (2015).

global economy—it did not succeed in restoring Greece's growth, reforming the economy, restoring Greece's market access, or ensuring debt sustainability as it had set out to do. The country's ownership was limited; the recession was much deeper than expected, with exceptionally high unemployment; and the burden of adjustment was not sufficiently spread across different strata of the society.

This chapter assesses the IMF's experience with surveillance and financial assistance in Greece, with a view to drawing lessons that can serve as a basis for debate and reform initiatives for the IMF's future operational work. The chapter focuses only on the decisions of the IMF itself, not on those of other official partners involved, and does not seek to assess the actions of European institutions or Greek authorities. Even so, it must be acknowledged that disentangling the decisions of the IMF from those of its partners is often quite difficult, given that program outcomes were ultimately determined by joint actions of all agents involved.

The assessment is complicated by a variety of factors. The judgment cannot be based on outcomes alone because of the circumstances under which the program was designed, which were bound to make economic adjustment in Greece particularly challenging. Nor can it be based on a comparison between forecasts and outcomes, because the latter were affected by unforeseen developments in the euro area environment. Nor can it be based on a comparison with what an alternative strategy might have delivered, because it is impossible to construct a counterfactual and to benchmark the program against it.

The assessment is based on interviews and a review of internal documents. To gather evidence, a number of decision makers were interviewed and a large volume of internal IMF documents were reviewed. The interviewees included the previous Managing Director of the IMF and former members of the IMF Executive Board, management, and senior staff; former officials of the Greek government and central bank; and former officials of European institutions such as the European Commission, the European Parliament, and the European Central Bank. In addition, the authors met with market participants, civil society representatives, academics, and members of think-tanks to seek their views.

The chapter is organized as follows. The second section provides background on the Greek crisis and the third section evaluates the effectiveness of IMF surveillance during the pre-crisis years. The following sections take up the story from 2010, evaluating the IMF's financial assistance to Greece under the SBA-supported program. The fourth section addresses issues related to the IMF involvement in financial assistance to Greece, and the decision-making process within the IMF as well as within the troika, and the fifth section discusses issues in the design of the SBA-supported program. The sixth section focuses on the key follow-up issues that have become controversial—including weakening program performance and lack of program adjustment; limited program ownership; debt sustainability issues and private sector involvement. The final section concludes by drawing some lessons for the IMF's future operational work.

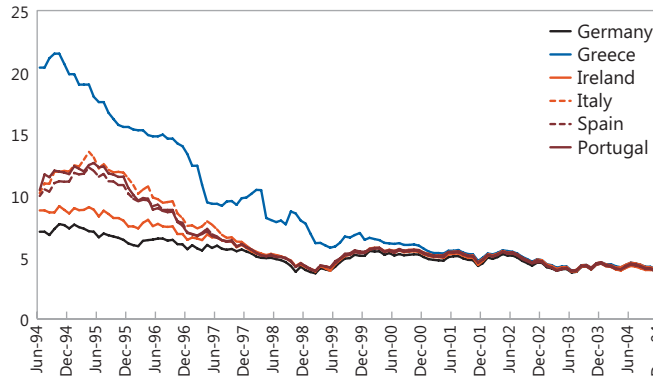
Background

European financial integration and the underpricing of default risk gave Greece easy access to cheaper, longer-term borrowing. Greece was the twelfth country to join the euro, in 2001, and was among those countries that gained the most from euro adoption (Fernandez-Villaverde, Garicano, and Santos, 2013): as bond markets no longer had to worry about high inflation or exchange rate risk, borrowing costs were falling sharply (Figure 7.2). Lower real interest rates and easier credit constraints fueled private sector dissaving and an accumulation of foreign liabilities that took place mainly through the banking system. The Greek economy grew by an average of 4 percent a year until 2007. Between 2001 and 2007, Greece's reported current account deficit averaged 9 percent a year, compared to a euro area average of 1 percent. The current account deficit widened to almost 15 percent of GDP in 2007, while external debt reached 140 percent of GDP.

For the government budget, debt refinancing at more favorable terms meant that the ratio of net interest costs to GDP halved from the period 1992–2000 to the period 2001–07, dropping from 11.5 percent of GDP in the mid-1990s to 5 percent of GDP in the mid-2000s (Figure 7.3). Net public savings thus improved slightly after Greece's accession to the European Economic and Monetary Union (EMU). But the ballooning of net private spending more than offset the improvement in public finances, resulting in a strongly deteriorating current account position (Figure 7.4; Table 7.1).[2] These developments were

Figure 7.2. Long-Term Government Bond Yields

(*In percent*)

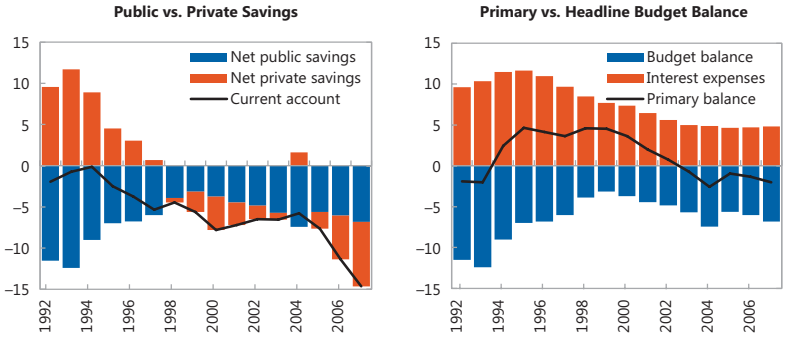


Source: Thomson Reuters Datastream.

[2] For recent studies highlighlighting the key role played by intra-euro area capital flows and foreign borrowing in explaining Greek current account imbalances, see also Holinski, Kool, and Muysken (2012); Baldwin and Giavazzi (2015); and Baldwin and others (2015).

Figure 7.3. Greece: Current Account vs. Public and Private Savings, 1992–2007

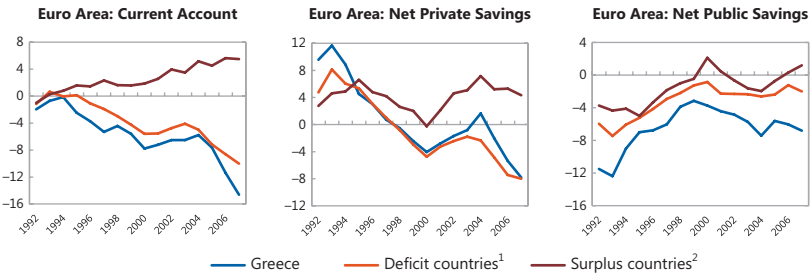
(*In percent of GDP*)



Source: IMF, *WEO*.

Figure 7.4. Euro Area: Current Account Developments, 1992–2007

(*In percent of GDP*)



Source: IMF, *WEO*.

[1] Greece, Ireland, Portugal, and Spain.

[2] Austria, Finland, Germany, and the Netherlands.

Table 7.1. Euro Area: Current Account vs. Public and Private Savings

(*In percent of GDP*)

	Current Account		Net Private Savings		Net Public Savings	
	1992–2000	2001–07	1992–2000	2001–07	1992–2000	2001–07
Greece	–3.6	–8.5	3.5	–2.7	–7.1	–5.8
Deficit countries[1]	–1.8	–6.5	2.2	–4.3	–4.0	–2.2
Surplus countries[2]	1.2	4.4	3.6	4.8	–2.4	–0.4

Source: IMF, *WEO*.

[1] Greece, Ireland, Portugal, Spain.

[2] Austria, Finland, Germany, and the Netherlands.

largely driven by Greece's financial integration upon entry into the euro area and the consequent increase in the availability of credit and financial assets. Aggressive risk-taking by European banks and the procyclical effect of the common monetary policy in the euro area may also have played a role in amplifying financial and economic imbalances in Greece and across euro area members.

Net public savings from euro adoption were eroded by fiscal indiscipline. In the face of lower refinancing costs, the primary budget balance (that is, excluding interest payments), which had been in surplus in the run-up to euro membership, turned into a deficit, starting in 2003—supporting the view that, once safely inside the euro, Greece relaxed its fiscal grip. Fiscal policy was highly procyclical, using cheap foreign borrowing to finance a significant expansion of government primary spending—mainly on wages and pensions (see also Kopits, 2017). The general government deficit soared to 15.6 percent of GDP (after incorporating data revisions), up from 4 percent of GDP in 2001. Public debt ballooned to 129 percent of GDP at end-2009 (after incorporating data revisions), with 75 percent held by foreigners. As noted in the IMF's 2009 Article IV consultation shortly before the onset of the crisis, Greece also had significant contingent liabilities due to borrowing by public enterprises under state guarantee, and the pension system had become underfunded as a result of increasingly generous entitlements and population aging. An examination by IMF staff of the intertemporal balance sheet revealed a highly negative net worth for the public sector: that is, a severe case of sovereign insolvency (IMF, 2009b).

A very weak record of compliance with the European Stability and Growth Pact and repeated misreporting of budgetary data characterized Greece's years inside the euro.[3] Serious concerns about the quality of Greek budgetary statistics flared up in 2004 when upward revisions to the fiscal deficit numbers raised questions about whether Greece had ever met the Maastricht criterion of an annual fiscal deficit no greater than 3 percent of GDP. Based on the revised data for 2003, the European Commission initiated the Excessive Deficit Procedure (EDP) for Greece in May 2004. In June 2007, the European Council abrogated the initial Decision 2004/917/EC on the existence of an excessive deficit.[4]

[3] Panagiotorea (2013b) provides a well-documented account of the evolution of Greece's economic policymaking during the years from euro accession to the financial crisis, from the first examples of statistical misreporting detected in 2001 to the progressive loss of fiscal discipline in 2005–09, eventually leading to the reckoning of decades of uncontrolled electoral spending.

[4] Under Article 104(7) of the Treaty, the Council established the deadline of November 2004 for the Greek government to take effective action, with a view to bringing the excessive-deficit situation to an end by 2005. In January 2005, the Council decided, according to Article 104(8) and on the basis of a Commission recommendation, that Greece had not taken effective action in response to the recommendation made under Article 104(7). A month later, in February 2005, the Council proceeded, in accordance with Article 104(9), to give notice to Greece to take the measures for deficit reduction judged necessary to bring the situation of an excessive government deficit to an end, extending the deadline for the correction by one year, to 2006. In October 2006, without

Greece's reliance on external financing left the economy highly vulnerable to shifts in investor confidence. Although spreads on Greek ten-year bonds over German Bunds jumped from 50 basis points to 300 basis points after the Lehman shock in September 2008, the Greek economy initially weathered the crisis relatively well; Greek banks were free of the toxic mortgage securities that felled other banks and the government had been able to continue accessing new funds from international markets. More fundamentally, though, the outbreak of the global liquidity crisis endangered the continued financing of Greece's growth model, given its high vulnerability to sudden stops in private capital flows.

Investors' trust was shattered by data revisions. After the October 2009 Greek election, the new socialist government led by Prime Minister George Papandreou announced that fiscal problems were significantly larger than the previous administration had admitted. The projected budget deficit for 2009 was nearly doubled, from 6.7 percent to 12.8 percent of GDP (the actual figure would later climb to 15.6 percent in April 2010). Public debt estimates were also revised sharply upwards. Two of the three main credit-rating agencies, Fitch and Standard & Poor's (S&P), cut their rating on Greek bonds and gave warning that a further downgrade was likely. As a debt standstill by Dubai World—a state-backed property venture in the Middle East—made bond investors more nervous about sovereign risk, Greek bond spreads started to widen again. In mid-December the government responded with a fresh plan to cut the deficit. Bond markets were unconvinced. So were the rating agencies: Fitch and S&P cut Greece's grade again, from A– to BBB+.

Pre-Crisis Surveillance

This section examines the effectiveness of IMF surveillance in Greece from 2000 to 2009, a period during which Greece's macroeconomic imbalances gradually built up before erupting into a full-blown crisis. The assessment is based on the IMF's analysis and policy advice contained in Article IV reports, reports from the Financial Sector Assessment Program (FSAP), and Reports on the Observance of Standards and Codes (ROSCs) from 2000 to 2009, as well as on interviews undertaken for the evaluation.

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previously notifying the Commission or other countries' finance ministers, Greece proposed a 25 percent revision of its annual gross domestic product for the 2000–06 period, because the National Statistical Service had included parts of the black economy in the revised national accounts. As a result, the official figure for the general government deficit in 2006 fell to 2.6 percent of GDP: 3.5 percentage points lower than in the base year 2003. With revenues and expenditure contributing almost equally to this reduction, the excessive deficit stood corrected. The Commission suggested that sizable revisions in government accounts since 2004 were the outcome of measures taken to improve the collection and processing of government finance statistics, in line with the Council Recommendation of July 5, 2004 and Decision of February 17, 2005. Eurostat subsequently validated the Greek budgetary figures that were reported in October 2006 and April 2007.

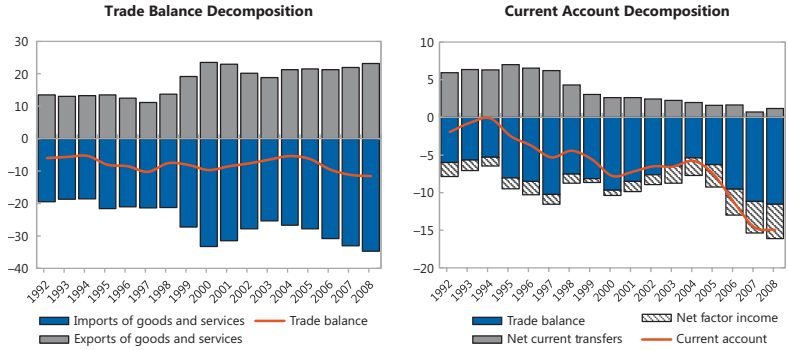
Analysis, Advice, and Traction—What Did the Fund See and Call For?

According to interviews with former Greek officials, the Fund correctly identified the key vulnerabilities in the Greek economy in the context of its annual bilateral surveillance exercises and issued relevant warnings about Greece's weak fundamentals throughout the decade preceding the crisis, although with little traction. The Fund provided recurrent warnings about "large and widening current account deficits;" urged "continued fiscal consolidation and social security reforms to foster sustainable public finances over the medium term;" called repeatedly for "structural policies to strengthen growth, competition, and accelerate real income convergence;" and alluded frequently to weaknesses in Greece's statistical data. According to interviewees, the IMF's policy advice remained relevant after the program relationship with Greece began in May 2010, and its underlying analysis formed the backbone of the macroeconomic framework of the IMF/EU-supported adjustment program. At the same time, most interviewees interpreted the persistence of the same weaknesses in the Greek economy year after year as evidence that the Fund's advice lacked traction and the capacity to follow up on the implementation of policy reforms in the context of its surveillance mandate.

After Greece's EMU accession, the IMF constantly pointed to widening external imbalances, real overvaluation, and steady deterioration in terms of trade, but did not highlight the risks that would become paramount in the crisis to follow. Already in the context of the 2000 Article IV consultation—in the wake of Greece's euro area entry—the staff explicitly questioned the authorities' view that the widening current account imbalances could be fully justified by fundamentals (e.g., elimination of exchange rate risk, and low per capita income compared to Greece's trading partners): staff estimates pointed to current account deficits in excess of the "norm" by some 2 percentage points of GDP. Throughout the decade, reflecting wage and service cost pressures, inflation was consistently 1–2 percentage points higher in Greece than in EU trading partners. By 2009, measures based on relative consumer prices and unit labor costs indicated that the real effective exchange rate had appreciated by 20–37 percent since Greece's entry into the euro area. Correspondingly, staff estimates based on CGER methodologies referred to sizable real overvaluation in the range of 20–30 percent.

The staff analysis of Greek—as well as intra-euro area—current account imbalances tended to ignore the underlying financial flows but instead typically focused on the diverging competitiveness among euro area members. It also failed to see that trade imbalances were driven more by buoyant domestic demand—funded by private debt—than by weak export performance (Figure 7.5). In the same vein, the staff's interpretation typically failed to acknowledge that, despite weak competitiveness, employment was high. Growth dynamics, driven by low real interest rates and the resulting excessive domestic demand, were not identified as unsustainable (Wyplosz, 2013).

Figure 7.5. Greece: Current Account and Trade Balance Decomposition, 1992–2007
(*In percent of GDP*)



Source: IMF, *WEO*.

Most importantly—in staff's view—the deterioration in net foreign financial asset positions was not deemed to constitute an immediate concern.[5] While current account divergences and the resulting deterioration in net foreign financial asset positions were often mentioned in national Article IV consultations, near-term concerns about the vulnerability of the economy to sudden shifts in market sentiment and abrupt liquidity tightening—although explicitly acknowledged by the staff—were tempered by the view that euro membership would make them significantly less severe and likely manageable. This was a view widely shared in the policy and academic community (Pisani-Ferry, Sapir, and Wolff, 2011).

The IMF also failed to warn about the potentially negative implications of having high debt and "competitiveness adjustment" needs. In a monetary union, the basics of debt dynamics change as countries forgo monetary policy and the exchange rate as adjustment tools. A country with a high debt-to-GDP ratio and low competitiveness faces the challenge that any "competitiveness adjustment" may increase the real burden of debt. As a consequence, the market's tolerance of what constitutes a sustainable level of debt diminishes. This means that, as alarm bells, current debt stock levels are more relevant than unfavorable medium-term debt-creating flows (Wyplosz, 2013).

[5] The 2007 Article IV consultation, for example, concluded that "availability of external financing was not a concern." The main reason given for this position was the belief that external deficits can always be funded in a monetary union. This view was implicitly based on two assumptions. First, private lending to private agents in any member country was believed to be well diversified, ruling out sudden stops. Second, national public debts were deemed to be safe. In reality, private investors eventually doubted that the "no-bailout clause" would be applied if a country were to face a sudden stop affecting both private and public borrowers (Wyplosz, 2013).

To correct deep-rooted underlying fiscal imbalances, IMF staff reports saw the need to restore the health of public finances and improve tax administration as top priorities. In line with EU commitments regarding deficits and debt reduction, since 2005 the IMF had called every year for sustained reductions in the structural deficit to achieve a balanced budget by 2010 and a budget surplus position beyond 2010. In light of the very high projected costs associated with the aging population, staff reports repeatedly urged the authorities to move expeditiously to implement proposals to reform the health care and the pension system. The staff also underscored the importance of dealing with a deep-rooted culture of tax evasion, a large unrecorded economy, and entrenched corruption—but once again without much effect. In this context, staff reports also emphasized the need to improve tax administration, overhaul public procurement, and develop an explicit medium-term budget framework that would lay out a consistent and realistic set of economic assumptions, deficit objectives, expenditure ceilings, and specific policy measures. The reports on several occasions strongly encouraged the provision of Fund technical assistance on tax administration and public expenditure management.

Country authorities who were interviewed for this evaluation concurred that the lack of implementation was—in hindsight—a major hindrance to the effectiveness of Fund advice. It is not clear what tools the Fund may have had available to ensure that measures would be implemented in the context of its surveillance mandate. Providing more technical assistance, to build capacity at an earlier stage, might have possibly helped later to tailor an adjustment program in such a way as to assure its implementation once agreed. But the lack of political willingness and ownership of objectives on the Greek side—a staff's perennial concern as clearly flagged in internal documents—raises doubts that further support for capacity building would have achieved better program implementation.

IMF staff persistently pointed to statistical data weaknesses, which it saw as hampering the assessment of economic developments and some aspects of IMF surveillance itself. In 2004, as noted earlier, gross misreporting of national and public sector accounts from as far back as 1997 was revealed. The IMF called into question the reliability of Greece's statistical data and their adequacy for surveillance on several occasions—namely, in the context of the data module of its 2003 Report on the Observance of Standards and Codes (IMF, 2003d) and its update (IMF, 2005b); as well as in the context of its 2004 Article IV consultation (IMF, 2005a). In addition, IMF staff identified significant problems in fiscal reporting and public financial management in the context of the fiscal transparency module of the 2006 Report on Observance of Standards and Codes (IMF, 2006c). As noted by Pisani-Ferry, Sapir, and Wolf (2011), the findings of the 2006 fiscal report were unfortunately not adequately reflected in the subsequent Article IV reports and the repeated warnings by mission teams about the dismal condition of Greece's public sector accounts were thereby downplayed. As a result, IMF

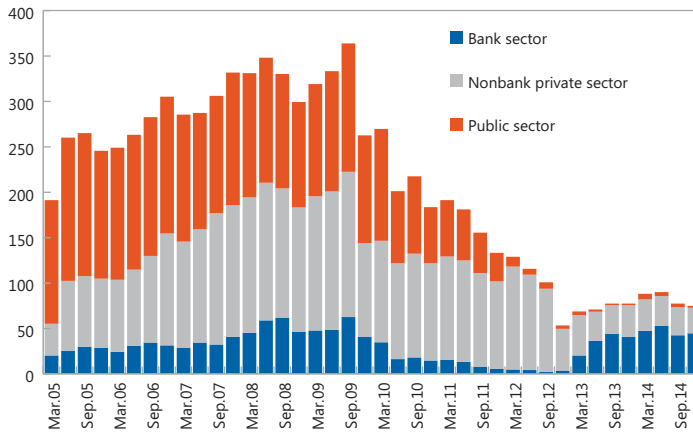
staff "took a generally approving stance with only occasional expressions of mild concern" (IEO, 2016), and no IMF action or decision was taken with respect to the 2004 misreporting, though in 2010, in relation to the newer misreporting, the IMF found Greece in breach of its obligations under Article VIII of the Articles of Agreement.

On financial sector issues, the lack of exposure of Greek banks to toxic structured products, their large deposit base, and their access to ECB funding helped ease the IMF staff's worries about asset quality deterioration against the background of a weaker economic environment, higher liquidity risks, and lower capital adequacy. All the IMF surveillance reports reviewed (including the 2006 FSAP report and the August 2009 staff report) and the market participants who were interviewed for this evaluation reached the conclusion that Greek banks were initially well capitalized, profitable, and soundly supervised (see also Véron, 2016). This analysis, however, failed to fully appreciate the risks associated with the rise in intra-euro area banking lending and did not tease out the potentially self-reinforcing linkages within the financial system and between specific sectors' vulnerabilities.

All in all, the IMF—like nearly all other external and domestic observers—did not foresee either the nature or the extent of the massive economic and financial crisis that would hit Greece from 2009 onwards. The scenario that eventually unfolded—soaring gross financing needs and debt service costs associated with a retrenchment of portfolio investment and foreign bank lending, the transmission of sovereign weakness to the financial sector due to banks' sizable exposures to Greece's sovereign debt, a dramatic credit crunch, and plummeting budgetary receipts on the heel of a deep economic recession and soaring unemployment—was not considered (Figure 7.6).

Figure 7.6. Consolidated Foreign Banks' Exposures vis-à-vis Greece

(*Ultimate risk, by sector; percent of Greece's GDP*)



Source: Bank for International Settlements, consolidated banking statistics.

Systemic Risks and Implications of Greece's Euro Area Membership

The IMF—like most observers—was late in recognizing the risk of a sudden stop in Greece's capital inflows, whereby cross-border capital flows came to a halt in an environment of diminished risk appetite caused by the global financial crisis (Merler and Pisani-Ferry, 2012a; Baldwin and others, 2015). The IMF—like most observers—downplayed the role of the rise in cross-border lending in driving the crisis. It did not fully appreciate the consequences of the reversal of such a process: namely, the effects on capital flows and credit supply conditions when the globally active European banks deleveraged in the aftermath of the Lehman collapse (Shin, 2011). Overall, the Fund's surveillance in Greece suffered from similar problems to its surveillance in general in the run-up to the crisis (IEO, 2011), failing to pay sufficient attention to risks of contagion and spillovers and posing too much confidence in the inherent stability of the private sector economy and in the ability of monetary authorities to deal with financial market corrections.

The implications of Greece's euro membership were critically downplayed during pre-crisis surveillance. The fallout from the sudden stop was amplified in euro area country members by: (i) the absence of a central bank to provide sovereign lender-of-last-resort support in its own currency; (ii) the predominance of bank financing; and (iii) the vicious feedback between banks and sovereigns (Baldwin and Giavazzi, 2015). In particular, the lack of fiscal risk sharing arrangements and of a banking union, combined with the lack of exchange rate flexibility, made individual euro area member states vulnerable to sovereign debt crises that had the potential to spill over to banking systems and the real economy. This vicious link between banking risk and sovereign risk was not adequately recognized by IMF pre-crisis surveillance; nor were the fragilities in the euro area architecture brought to light (De Grauwe, 2012; Wyplosz, 2014; Dhar and Takagi, 2017).

The integration of the bilateral and multilateral strands of surveillance in the context of euro area country members had been posing a challenge to the IMF since the introduction of the euro, and may have ultimately hindered the detection of cross-border linkages and related systemic risks in the region (Watson, 2008; Pisani-Ferry, Sapir, and Wolf, 2011).[6] At the launch of the euro, the IMF had adopted a double-track approach for the

[6] Since the global financial crisis, the Fund has taken steps to address this problem. In July 2012, the Executive Board adopted an Integrated Surveillance Decision that strengthened the legal basis for surveillance in a highly integrated world economy. This decision enables more systematic coverage of spillovers from members' economic and financial policies in Article IV consultations and better integrated surveillance at the bilateral and multilateral levels. It is designed to help the IMF to engage members at an earlier stage in the buildup of risks and vulnerabilities, and to encourage them to be mindful of the impact of their policies on other countries and on global stability.

surveillance of euro area countries (Executive Board Decision No. 11846 (8/12), December 9, 1998). Specifically, surveillance of euro area members' fiscal, financial, and structural policies was carried out at the national level and discussed with individual country authorities, while euro-area-wide policies—including monetary and architectural issues—were discussed at the area level. Policy recommendations that were developed in the euro area Article IV consultations were rarely translated into concrete country-specific policy advice. Conversely, problems identified at the national level were not generally brought to the attention of the broader euro area policy community. In this way, the Fund's expertise for integrating surveillance at the national, regional, and global level was left largely unexploited in the years preceding the crisis, and the IMF failed to properly account for spillover risks.

Anticipating the design of a crisis management and resolution regime for the euro area should have been a strategic issue for the IMF. The architecture of the euro area—at least initially—relied on the primacy of crisis prevention (such as the prevention and correction of excessive public deficits), but no procedures—not even agreed principles—were in place for crisis management and resolution. No formal provision precluded individual euro area members from seeking financial assistance from the Fund. Nor had the IMF developed a relevant procedure, nor even an understanding of when and how it might become involved. Most specifically, the IMF staff did not explore the possibility of refining the Fund's operational framework for lending to individual members of currency unions to account—for instance—for issues such as the imposition of conditionality on policies that are under the control of supranational institutions like the ECB (Tan, 2017). Had IMF management and staff considered the implications of euro area membership for program design with the Executive Board in the six months prior to Greece's SBA request, the staff would have had a better understanding of the specific constraints it would face in an IMF-supported program for a euro area member.

Program Preparation

Circumstances and Modalities of IMF Involvement in Greece

Proper assessment of the design of the SBA-supported program for Greece requires understanding of the circumstances that led to the initial IMF's decision to provide exceptional access financing to Greece, amid misgivings about Greece's medium-term debt sustainability. This decision was made against an environment that rendered crisis management and resolution particularly difficult. Greece was the first country in need of financial assistance inside an economic and monetary union whose architecture was not yet fully developed. And, as the crisis developed on the heels of the 2008 global financial crisis, the economic and market environments were still unstable.

Contagion from Greece to other euro area sovereign issuers was a major concern given the considerable exposure of euro area banks to euro area

sovereign debt.[7] As explained by Merler and Pisani-Ferry (2012b), the reason why European banks hold so much government debt is twofold. First, the European financial system remains largely bank-based, with banks playing a key intermediary role, mirrored by the size of their assets. Second, government bonds are appealing because they can easily be used as collateral (both in the interbank market and for central banks' emergency lending) and because the Basel regulatory framework allows for zero-risk weight of bonds issued by euro-area governments.

In the buildup to the Greek crisis, such exposures created a toxic interaction between sovereign and bank balance sheets. A weakening of the sovereign balance sheet has the potential to raise concerns about the solvency of banks, whereas banking sector problems weaken sovereign balance sheets because of the (often implicit) government guarantees provided to the financial sector. Given the systemic importance of European banks, a risk of a sovereign default endangering the soundness of the European banking system would have posed a serious threat to global, not only European, financial stability.

The fundamental challenge was hence to break the noxious link and establish a "firewall" that would keep turmoil from spreading, by showing markets that Europe had both the resources and the institutional infrastructure to respond if any other euro area country came under speculative attack. In this context, the euro area began creating a financial safety net for its member countries and overhauling its own institutional design. This led to the creation of the new lending facilities—the European Financial Stability Facility (EFSF), European Financial Stabilization Mechanism (EFSM), and European Stability Mechanism (ESM)—that ultimately provided the greatest part of the financing for Ireland, Portugal, Spain, and Cyprus (Annex 7.1).[8]

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[7] EU banks' stress test results—publicly released on July 23, 2010—revealed the location of Greek sovereign debt on a bank-by-bank basis. Greek sovereign bond holdings for 84 of the 91 participating EU banks—from balance sheet data dated March 31, 2010 (that is, preceding the launch of the ECB's Securities Markets Program)—amounted to about €81.5 billion. This was about 60 percent of the €183 billion total outstanding claims (ultimate risk basis) of the European banks against Greece, as reported by the Bank for International Settlements at the end of 2010Q1—confirming that substantial non-sovereign exposures related to Greece also existed. Large cross-border exposures to Greek sovereign debt (defined as an exposure above 5 percent of tier-one capital) were reported for Germany, France, Belgium (all with systemically important banks), Cyprus, and Portugal. Greek banks' heavy exposure to the sovereign debt of their own country was also confirmed at €56 billion, representing 226 percent of their tier-one capital. See Kirchegaard (2010) and Blundell-Wignall and Slovik (2010) for important details on the EU stress test and bank-specific sovereign debt exposures.

[8] The EU lending instruments established since 2010 to preserve financial stability in Europe comprise: (i) the European Financial Stabilization Mechanism (EFSM), an EU financial assistance feature available to all 27 member states; (ii) the European Financial Stability Facility (EFSF), a temporary credit-enhanced special-purpose vehicle with minimal capitalization created to raise funds from the capital markets (via an investment-grade rating) and provide financial assistance to distressed euro area members at comparatively lower interest rates; and (iii) the European Stability Mechanism (ESM), an intergovernmental organization under public

The IMF was kept on the sidelines when approaches to dealing with the developing crisis in Greece were initially being debated in Europe in late 2009 and early 2010 (Blustein, 2015). In January 2010, the euro area authorities ruled out the possibility of seeking IMF financing. The Greek authorities concurred. Nevertheless, the new Greek government requested the Fund's technical assistance to improve tax administration and public financial management policies and IMF Fiscal Affairs Department missions visited Athens in early 2010.[9] At the same time, Greece committed to a fiscal consolidation plan via the 2010 Stability Program with the European Commission, with the aim of cutting the deficit from 12½ percent of GDP in 2009 to 8¾ percent of GDP in 2010, and by a further 3 percentage points in 2011 and 2012 (the so-called 4-3-3 plan). But the plan failed to win back the confidence of investors.

The IMF was eventually called in. At the European summit on March 25, 2010, euro area member states pledged "to provide financial assistance to Greece in concert with the Fund, if necessary, and if requested by Greece's government" (European Council, 2010). IMF involvement was reportedly a key condition for some European creditor countries' willingness to compromise and agree to the creation of a safety net mechanism. Some economists have also argued that the conditionality attached to an IMF loan would lend additional impetus to reform and provide both the Greek government and the EU with an outside scapegoat for pushing through politically unpopular reforms. The EU, too, would make policy reforms a condition for its lending, but the IMF was seen as more independent than the EU, and more experienced in resolving debt crises (Nelson, Belkin, and Mix, 2010; *The Economist*, 2010b).

The modalities of cooperation between the IMF and the European institutions were largely ad hoc, established in real time in the midst of the crisis. Given the limited formal guidance on modalities for collaboration, ample flexibility existed in the IMF to tailor joint work to Europe's specific circumstances. At the same time, it has been noted that too much flexibility might have given rise to perceptions of differentiated treatment and greater uncertainty about the provision of financial assistance, given that objectives and processes differed among the institutions involved (IMF, 2013c). Conditional assistance from the IMF is meant "to give confidence to members by making the general resources of the Fund temporarily available to them under adequate safeguards, thus providing them with opportunity to correct maladjustments in their balance of payments without resorting to measures destructive of national or international prosperity" (Article I of IMF Articles of Agreement). Thus, in providing financing to a country member, the Fund has no other objective than (i) correcting the imbalances that led the member

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international law. For discussions on the new EU architecture designed to avert a financial crisis, see for example Olivares-Caminal (2011) and Boeckx (2012). IMF (2013a) provides a broader overview of regional financing arrangements and scope for IMF coordination.

[9] In addition, in early 2010 the IMF's Monetary and Capital Markets Department provided financial sector advice to the national central bank.

country to request assistance; and (ii) ensuring that the country will be able to repay the loan, without resorting to measures that are harmful to it or to other Fund members. The EU, on the other hand, is a political system. Its still evolving lending framework—and underlying conditionality—is geared towards members that are threatened by severe financing problems, with the main objective of safeguarding the stability of the system as a whole. Such diverging goals may potentially create disagreements, as the IMF is fundamentally more concerned about the impact of policy demands on the debtor country's medium-term debt sustainability, whereas European institutions are inherently more concerned about the impact of the program on the stability of the region and the risks of contagion to other member states.

Former IMF senior staff members and country authorities stated to the IEO that IMF involvement was justified by the need to preserve global financial stability. And several otherwise critical stakeholders argued that it was not in the interest of the global community—or thereby of the Fund—to abstain from engaging in a region that posed a serious threat to global stability. Seen in this perspective, the European objective of putting the stability of the euro area ahead of the specific needs of Greece was congruent with the Fund's responsibilities and the interest of the majority of its membership.

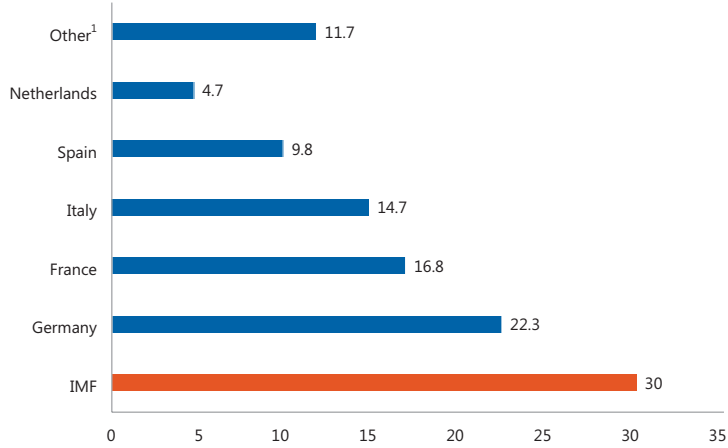
While negotiations and discussions about an IMF/EU bailout package for Greece continued, investors' jitters spiked again in April 2010 when Eurostat released its estimate of Greece's budget deficit. At 13.6 percent of GDP, this estimate was almost a full percentage point higher than the previous estimate, released by the Greek government in October 2009.[10] The new revelation raised renewed questions about Greece's ability to repay large debt obligations falling due on May 19, 2010.

On April 23, 2010, the Greek government formally requested financial assistance from the IMF and other euro area countries. In late April 2010, the spread between Greek and German ten-year bonds reached a record high of 650 basis points. On April 27, 2010, S&P downgraded Greek bonds to "junk" status.

On May 2, 2010, the Eurogroup and the IMF simultaneously announced a three-year, €110 billion stabilization plan for Greece (Figure 7.7). Euro area countries were to contribute €80 billion in bilateral loans to be pooled by the EC under the Greek Loan Facility, pending the parliamentary approval needed in some countries. The IMF was to provide a €30 billion loan (equivalent to SDR 26.4 billion and 3,212 percent of quota) at market-based interest rates under a three-year Stand-By Arrangement that was approved by the Board on May 9. The first disbursements were made available before the debt-service payment obligations of the Greek government fell due on May 19.

[10] As noted earlier, in May 2010 the IMF found Greece in breach of members' reporting obligations under Article VIII, Section 5 of the Articles of Agreement.

Figure 7.7. Financial Assistance to Greece: Relative Contributions
(*In billions of euros*)



Sources: IMF; EU Commission; and ECB.
[1] Includes Belgium, Austria, Portugal, Finland, Ireland, Slovakia, Slovenia, Cyprus, Luxemburg, and Malta.

Debt Sustainability Issues

Given the revolving nature of IMF financing, debt sustainability is crucial. The IMF can only provide financing to a member country whose economic policies are deemed adequate to resolve its balance of payments problems within a reasonable timeframe. Fund financing cannot solve a solvency problem: the member must undertake sufficient adjustment, reduce the present value of its obligations, or a combination of these, to maintain medium-term sustainability.

Debt is judged sustainable when a borrower is expected to be able to continue servicing its debts without an unrealistically large correction to its income and expenditure. This judgment determines the availability and the appropriate scale of IMF financing. When a member requests Fund financial assistance, the IMF assesses whether the authorities' policies are consistent with ensuring debt sustainability. This assessment is based on a debt sustainability analysis (DSA) that incorporates alternative scenarios and stress tests (Box 7.1).

In the vast majority of IMF-supported programs in emerging market and advanced economies, a combination of policy adjustment and financing from public and private sources has been sufficient to preserve sovereign debt sustainability. Programs seek to strike an appropriate balance between adjustment and financing. Financing—including from the IMF—aims at smoothing adjustment and making it less costly for both the member concerned and the international community. IMF financing is usually a part of total financing. Other creditors, official or private, are also generally expected to

Box 7.1. IMF Debt Sustainability Analysis

The IMF's advice on macroeconomic policies—in the context of either IMF-supported programs or surveillance—is anchored in the analysis of a country's capacity to finance its policy objectives and service the ensuing debt without unduly large adjustments, which could compromise its stability. To this end, the IMF has developed a formal framework for conducting sustainability analyses for public and external debt as a tool to better detect, prevent, and resolve potential crises. This debt sustainability analysis (DSA) framework became operational in 2002. The framework for public debt sustainability analysis[1] for advanced and emerging market economies was reformed in 2011 and guidance to staff on the implementation of the new framework[2] was introduced in May 2013. A new public DSA template[3] was published in March 2014.

The objective of the framework is threefold:

- Assess the current debt situation, its maturity structure, whether it has fixed or floating rates, whether it is indexed, and by whom it is held.
- Identify vulnerabilities in the debt structure or the policy framework far enough in advance so that policy corrections can be introduced before payment difficulties arise.
- In cases where such difficulties have emerged, or are about to emerge, examine the impact of alternative debt-stabilizing policy paths.

The framework consists of two complementary components: the analysis of the sustainability of total public debt and that of total external debt. Each component includes a baseline scenario, based on a set of macroeconomic projections that articulate the government's intended policies, with the main assumptions and parameters clearly laid out; and a series of sensitivity tests applied to the baseline scenario, providing a probabilistic upper bound for the debt dynamics under various assumptions regarding policy variables, macroeconomic developments, and financing costs. The paths of debt indicators under the baseline scenario and the stress tests allow the analyst to assess the vulnerability of the country to a payments crisis.

DSAs should not be interpreted in a mechanistic or rigid fashion. Their results must be assessed against relevant country-specific circumstances, including the particular features of a given country's debt as well as its policy track record and its policy space.

[1] Available at https://www.imf.org/external/np/pp/eng/2011/080511.pdf.
[2] Available at https://www.imf.org/external/np/pp/eng/2013/050913.pdf.
[3] Available at https://www.imf.org/external/pubs/ft/dsa/templ/dsatempl2.xlsm.

contribute to the financing of the program. The extent of private sector involvement (PSI) is typically reflected in assumptions about private sector capital flows (and their composition, e.g., bonds; bank loans with various characteristics) and rollover by creditors, based on the expected impact of the IMF-supported program on private sector sentiment. PSI can also be made more

explicit, such as when banks committed to maintain their exposure in recent programs in Central and Eastern Europe.

If the IMF determines that debt sustainability cannot be preserved through credible and sustainable policy adjustment by the borrowing member, it cannot provide financing unless steps are taken to restructure the debt and restore sustainability. In other words, if the debt is found unsustainable, it will have to be restructured one way or another. And, in such a case, it is better for the debtor, creditors, and the entire financial system that the restructuring be carried out in a prompt, predictable, and orderly manner (Hagan, 2014).

In the case of requests for exceptional access to Fund resources, a higher evidentiary test is required: that the member's public debt should be sustainable in the medium term "with a high probability" (see next section). Such debt sustainability requirement applies throughout the period of the financing arrangement. In the case of Greece's exceptional access under the 2010 SBA, the IMF's debt sustainability analyses—which were conducted every three to six months after the beginning of the program in May 2010—suggested that, even under optimistic assumptions, risks to Greece's debt sustainability remained high.

Thus, it is not surprising that the IMF's initial decision to provide exceptional financing to Greece without first seeking a restructuring of Greece's sovereign debt was a particularly contentious issue. As evident in the internal review process for the SBA request, management and key senior staff were divided on their assessment of Greek debt sustainability (see also next section). However, with the fallout from the Lehman collapse of September 2008 still fresh in policymakers' memory, there were concerns about a potential credit event spreading to other members of the euro area and more widely to a fragile global economy.[11] Ultimately, the Managing Director's judgment was to go along with the decision that had already been reached among European policymakers, namely, to attempt to restore Greece's financial and macroeconomic stability through official financing, fiscal adjustment, and structural reforms.

As it turned out, the decision not to seek preemptive debt restructuring fundamentally left debt sustainability concerns unaddressed, magnified the required fiscal adjustment, and thereby—at least in part—contributed to a large contraction of output and a subsequent loss of Greek public support for the program. The IMF's ex-post evaluation of the Greek SBA observed: "not tackling the public debt problem decisively at the outset . . . created uncertainty about the euro area's capacity to resolve the crisis and likely aggravated the contraction in output. An upfront debt restructuring would have been better for Greece although this was not acceptable to the euro partners." (IMF, 2013c.)

[11] A similar ambivalence is reflected in the minutes of the Executive Board meeting of May 9, 2010, which approved the SBA request. Several EDs expressed concern over the high risks to Greece's debt sustainability, but the majority (by voting power) focused on the gravity of contagion risk.

Introducing an Exemption to the Exceptional Access Policy

Providing exceptional access for Greece—at more than 3,000 percent of quota— involved substantial financial risks for the Fund. IMF lending above normal limits entails enhanced scrutiny by the Fund's Executive Board and requires that the member's public debt should be sustainable in the medium term with a high probability, in accordance to the 2002 Fund's exceptional access policy (Box 7.2). The policy was originally designed to protect the IMF's decision-making process in exceptional access cases from undue political influence and—by limiting the room for discretion—make the IMF less vulnerable to pressures to provide exceptional access where there are misgivings about debt sustainability.

In the case of Greece, stating that the member's public debt was sustainable in the medium term with a high probability was not possible, in the staff's judgment. A compromise thus emerged during the internal review process. Instead of certifying that Greece had a high probability of debt sustainability, the staff decided to state that "on balance" the country's debt appeared to be sustainable. In addition, an exemption to the exceptional access policy was introduced, dropping the high-probability requirement for crises that posed risks of "systemic spillovers." Since all countries must be treated evenhandedly, this exemption was made applicable to all future cases, not just Greece. Only with this clause could the IMF provide financial support to Greece at the proposed access level.

The need to change the debt sustainability criterion of the exceptional access policy was not disclosed to the Board until the staff report had been circulated. Arguably, this could have been justified by the urgency of the situation at the time but—according to the evidence obtained by the IEO—management had been considering different alternatives for the modification to the exceptional access policy since, at least, end-April. Yet the Board was not consulted or informed during this period. The policy change was embedded in the report requesting the Greek SBA and, therefore, was to be implicitly approved along with the formal and explicit request for Fund resources. Neither management nor staff drew the attention of the Board to

Box 7.2. IMF 2002 Exceptional Access Lending Framework

Access to IMF financial resources is guided by a member country's need for financing and its capacity to repay, and by its track record in using IMF resources. Within these guidelines, the IMF can lend amounts above normal limits on a case-by-case basis.[1]

Prior to 2002, the exceptional access policy was designed to be very flexible, with no criteria established as to what these circumstances were and why they should be considered particularly exceptional. The decision to lend to Argentina in 2001, and Argentina's subsequent debt default, served as the final catalyst for a broad review of the Fund's exceptional access policy. Drawing on the Prague

Framework for Private Sector Involvement endorsed by the International Monetary and Financial Committee (IMFC) at the Annual Meetings in Prague in 2000, the 2002 Exceptional Access Framework provides that IMF lending above normal limits entails enhanced scrutiny by the Fund's Executive Board.[2] At a minimum, a member facing a capital account crisis must meet the following four substantive criteria to justify exceptional access:

(i) The member is experiencing exceptional balance of payments pressures on the capital account resulting in a need for IMF financing that cannot be met within the normal limits.
(ii) A rigorous and systematic analysis indicates that there is a high probability that the debt will remain sustainable.
(iii) The member has good prospects of regaining access to private markets within the time IMF resources would be outstanding.
(iv) The member's policy program provides a reasonably strong prospect of success, including not only the member's adjustment plans but also its institutional and political capacity to deliver that adjustment.

The 2002 framework also established stronger procedures for decision making on exceptional access to reinforce safeguards and enhance accountability:

(i) Prompt and systematic Board consultations on program negotiations, notably through confidential informal briefings. In this context, Executive Directors are provided with a short note outlining the following: a tentative diagnosis of the problem; the outlines of the needed measures; the basis for judgment that exceptional access may be necessary and appropriate, with a preliminary evaluation of the four substantive criteria; and the likely timetable for discussions. Informal meetings will provide the basis for consultation with capitals and the issues that emerge will be addressed in a further informal session. Management is expected to consult with the Board specifically before concluding discussions on a program and before any public statement on a proposed level of access.
(ii) A higher burden of proof in program documentation. Staff reports proposing exceptional access must include: a consideration of each of the four criteria; a thorough discussion of the balance of payments need and the proposed access; a comparison of the proposed access with other metrics aside from quota; and systematic and comprehensive information on the member's capacity to repay the Fund. The Board is also provided with an assessment of risks to the IMF arising from the exposure and its effect on IMF liquidity.
(iii) An ex post evaluation of the program within one year of the end of the IMF arrangement.

Consistent implementation of the framework for exceptional access policy was considered essential to heighten the degree of clarity and predictability for both members and markets about the Fund's response in crisis resolution.

[1] Normal borrowing limits were doubled in 2009 to give countries access of up to 200 percent of quota for any 12–month period, and cumulative access over the life of the program of up to 600 percent of quota, net of repayments.

[2] See "Access Policy in Capital Account Crises" (SM/02/246; 7/30/02); the Acting Chair's Summing Up (BUFF/02/159; 9/20/02); "Access Policy in Capital Account Crises—Modifications to the Supplemental Reserve Facility and Follow-Up Issues Related to Exceptional Access Policy" (SM/03/20; 1/14/03); and the Acting Chair's Summing Up (BUFF/03/28; 3/5/03).

the proposed decision itself or to the fact that the exceptional access criteria would effectively be modified by approving the SBA (De Las Casas, 2017).

The introduction of the "systemic exemption" had several shortcomings which revealed themselves over time. As noted in IMF (2016b), "[f]irst, the exemption did not prove reliable in mitigating contagion. And this is understandable. Insofar as the exemption left market concerns about underlying debt vulnerabilities unresolved, the exemption was unlikely to instill market confidence in the program and thereby limit contagion. Second, by replacing maturing private sector claims with official claims, it increased 'subordination risk' for private creditors—that is, the risk that private claims would rank lower than official claims in the case of an eventual default—making it more difficult for the country to regain market access. Third, for the two reasons above, the systemic exemption entailed substantial costs and risks for the member country and the IMF. In particular, it delayed the restoration of debt sustainability, impaired the prospects of success for the country's economic policy program, and eroded safeguards for IMF resources." For these reasons, the 2016 reform of the IMF's exceptional access policy removed the "systemic exemption" (Box 7.3).

The exceptional access policy requires the continued satisfaction of the debt sustainability criterion throughout the period of the arrangement. However, there is no requirement to spell out the assessment that the criterion is met at every program review. In this context, the staff reports for the first three reviews of the SBA remained silent on the issue. The staff report for the fourth review of the SBA reiterated that "significant uncertainty around the baseline projection does not allow the staff to deem debt to be sustainable with high probability" and that "meeting the high probability test is not required under the revised exceptional access policy when there is a risk of international systemic spillover effects, as is now the case in Greece." It also indicated that "involvement of the private sector and/or stronger official sector support" were being considered as a strategy to place debt on a more sustainable path (IMF, 2011d). In the staff report for the fifth review of the SBA—when an agreement on PSI and stronger official sector support had already been reached—there were no more references to systemic spillover effects. Instead, it was noted

Box 7.3. IMF 2016 Exceptional Access Lending Framework

In January 2016, the Executive Board approved reforms to the IMF's exceptional access lending framework to make it more calibrated to members' debt situations, while avoiding unnecessary costs for the members, creditors, and the financial system as a whole. These reforms were put forward in a 2015 staff paper "The Fund's Lending Framework and Sovereign Debt—Further Considerations." The Board's January 20, 2016 decision followed a preliminary Board discussion on this topic in June 2014 (Press Release No. 14/294).

The reforms aimed at improving the IMF exceptional access policy in three ways. First, they removed the systemic exemption introduced in May 2010. Second, they gave the IMF appropriate flexibility to make its financing conditional on

a broader range of debt operations, including the less disruptive option of a "debt reprofiling"—that is, a short extension of maturities falling due during the program, with normally no reduction in principal or coupons. Third, they clarified the criterion related to market access.

The current, reformed policy—like the old one—prescribes that when debt is clearly sustainable, the IMF will continue to use its catalytic role and provide financing support to the member without requiring any debt operation. When debt is clearly unsustainable, a prompt and definitive debt restructuring will continue to be required to restore debt sustainability with "high probability."

However, for countries where debt is assessed to be sustainable but not with a high probability, the 2016 policy allows the IMF to grant exceptional access without requiring debt reduction upfront, as long as the member also receives financing from other creditors (official or private) during the program. This financing should be on a scale and terms that (i) helps improve the member's debt sustainability prospects, without necessarily restoring debt sustainability with "high probability"; and (ii) provides sufficient safeguards for IMF resources. The choice of the most appropriate option, from a range of options that could meet the two conditions noted above, would depend on the member's specific circumstances.

In situations where the member retains market access, or where the volume of private claims falling due during the program is small, sufficient private exposure could be maintained without the need for a restructuring of their claims. In situations where the member has lost market access and private claims falling due during the program would constitute a significant drain on available resources, a reprofiling of existing claims would typically be appropriate. This could allow a somewhat less stringent adjustment path while also reducing the required amount of financing from the IMF. Under the new policy, financing from official bilateral creditors, where necessary, could be provided either through an extension of maturities on existing claims and/or in the form of new financing commitments.

The new policy would also allow the IMF to deal with rare "tail-event" cases where even a reprofiling is considered untenable because of contagion risks so severe that they cannot be managed with normal defensive policy measures. In these rare cases, the IMF could still provide large-scale financing without a debt operation, but would require that its official partners also provide financing on terms sufficiently favorable to backstop debt sustainability and safeguard IMF resources. This could be done through assurances that the terms of the financing provided by other official creditors could be modified in the future if needed (say in the event of downside risks materializing). If official partners could not provide such assurances (or if the member's debt was deemed unsustainable at the outset), the terms of official financing would have to be sufficiently favorable to restore debt sustainability with high probability.

In addition, the Board confirmed that the third criterion—which requires a member to have prospects for regaining market access—remains binding even when there are open-ended commitments of official support for the post-program period. It also clarified that the timeframe within which a member is expected to regain market access has to be consistent with the start of repayment of its obligations to the IMF, not just when the last one is due, as implied by the old formulation of the criterion.

that "the sustainability of Greece's debt depends on prolonged support from Greece's European partners at low interest rates, and deep restructuring of private sector debts with near-universal participation of creditors" (IMF, 2011e).

Program Design

Overall Design Issues

As noted, upfront debt restructuring was off the table. So was imposing conditionality on monetary policy, which was under the competency of the ECB. To be sure, the ECB provided substantial and extraordinary liquidity support during the course of the SBA. For example, from May 2010, it suspended the link between sovereign credit ratings and eligibility of collateral for refinancing operations and it intervened directly in the government bond market under the Securities Markets Program. It also began to accept uncovered bank bonds guaranteed by the government as collateral eligible for refinancing operations. But these efforts alone did not keep the turmoil from spreading. The unanimously recognized imperative was to establish credible firewalls for Europe, including via stronger supportive actions by the ECB, but—in the event—such bolder actions remained off the table.[12]

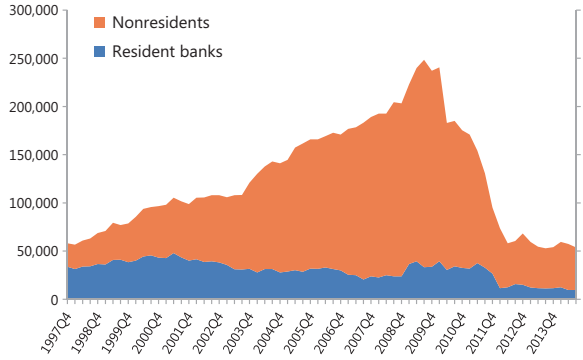
Nor did foreign private creditors credibly commit to maintain their exposures in Greece at the outset of the program. The lack of action in this area is apparently at odds with what had been done in previous IMF-supported programs in emerging Europe in response to the 2008 global financial and economic crisis, where the IMF sought a form of PSI from the outset.[13] Replicating a similar initiative in Greece was not deemed to be viable, as was noted by the staff response to questions from Executive Directors at the IMF Board meeting on May 9, 2010.[14] To be sure, while Eastern European

[12] It has been noted that by setting limits on its potentially unlimited actions, the ECB undermined its stated intentions and reinforced market fears (Wyplosz, 2014; De Grauwe, 2012). The ECB President's "whatever it takes" speech in July 2012 proved the power of unlimited central bank commitments: without any need for actual intervention, the announcement succeeded in quietening markets and steering the crisis away from its acute phase.

[13] In particular, in partnership with other multilateral institutions, the IMF actively participated in the Bank Coordination Initiative when this was launched in January 2009 (Takagi and others, 2014). The large presence of foreign-owned banks in several Eastern European countries made PSI especially necessary, whereas the small number of large players enhanced its feasibility and success (De Haas and others, 2012).

[14] "Let me turn to the issue of private sector involvement. We had considerable discussion on that. Several Directors have mentioned the Bank Coordination Initiative that the Fund is using when we have programs with other countries in the region, like Romania, Serbia, and Hungary. That Bank Coordination Initiative is not applicable in this case, because in these countries the issue is really one of exposure of home banks to the subsidiaries in these countries. It is relatively easy to get those home banks and their regulators into a room together with Fund staff and other stakeholders, and try to come up with a commitment to maintain exposure. In the

Figure 7.8. Greek Sovereign Bonds' Holdings
(*In millions of euros*)



Source: Merler and Pisani-Ferry (2012b).

countries confronted mostly liquidity problems that could be effectively handled through creditors' coordination, Greece faced underlying debt vulnerabilities that made creditors' coordination much harder.

As market concerns about Greece's underlying debt sustainability were left unresolved, expectations of future debt restructuring were widely held by private investors. Indeed, as shown by the Bruegel database of sovereign bond holdings developed in Merler and Pisani-Ferry (2012b), Greek government bonds' holding patterns changed rapidly after 2009Q4, with the share of nonresident holders of Greek sovereign debt—in large part, the original bank lenders—declining markedly (Figure 7.8). Predictably, by the time the PSI was finally implemented in spring 2012, most large foreign banks had sold their stakes to official institutions and Greek banks, which in turn had to be bailed out.[15]

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case of Greece, the issue is not primarily of maintaining exposure of home banks to subsidiaries, but claims on holders of Greek government bonds. These holdings are, it appears, widely spread and this points to major complications. We do in fact not have very good information on who holds these papers. This is one of the reasons why the mechanism that is in place might not yet be up to what we would desire. But, as we heard this morning from Mr. Fayolle, Mr. Stein and other Directors, efforts are ongoing in Europe to encourage banks to maintain exposure, and I think this is something where efforts are still developing. This will be supplemented by an effort by the government, by the Minister of Finance. He is asking for our support in this regard, to organize a road show to essentially present the program in financial capitals to disseminate information about it and keep financial capitals informed about progress under the program. Overall, I recognize that safeguards in this area are not fully up to what we would want, but I think that this is still developing."

[15] As noted by the IMF's ex-post evaluation of the Greek SBA (IMF 2013c), "A delayed debt restructuring also provided a window for private creditors to reduce exposures and shift debt

In the absence of greater financing from the European partners or upfront debt restructuring, correcting the major disequilibria in the Greek economy was bound to be a titanic challenge. Greece's combination of excessively large public and private debt, an overvalued real exchange rate, a fragile government apparatus, languishing political ownership, and a weak and closed business sector meant that the required adjustment was bound to be of extraordinary size and prove very challenging.

Ultimately, the design of the Greek rescue was perceived as fragile, while no credible firewall was yet in place to keep Greece's woes from spreading. In exchange for financial assistance, Greece submitted a three-year plan aimed at cutting its budget deficit from 13.6 percent of GDP in 2009 to below 3 percent of GDP in 2014. The plan anticipated that the debt-to-GDP ratio would peak at 149 percent in 2013 and gradually decline thereafter. As worryingly high as a debt-to-GDP ratio of 149 percent could be, keeping it from soaring even further depended on three bets paying off: (i) the Greeks would implement the structural and fiscal consolidation measures as promised; (ii) those measures would engender the promised benefits for confidence and growth; and (iii) those confidence effects would allow the Greek sovereign to regain market access by the end of the SBA. In short, the sustainability of public debt was highly vulnerable. It is not surprising, then, that markets began to panic again a few days after the package was unveiled. By May 7—the day of the Euro summit during which the ECB was invited to buy bonds of the riskiest governments—yields on Greek sovereign bonds were above 12 percent.

The IMF staff made it clear that the program supported by the SBA was ambitious and subject to considerable risks. Internal IMF documents show that, from the beginning, very serious concerns were raised about debt sustainability and the fragility of the program. Problem is that by founding the program on a very risky strategy, the IMF and European political leaders destined it to have a very slim chance of success.[16]

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into official hands. As seen earlier, this shift occurred on a significant scale and limited the bail-in of creditors when PSI eventually took place, leaving taxpayers and the official sector on the hook." Yet, it did not take long for the Fund to argue that there was a need to go further and contemplate also the restructuring of official assistance loans. Looking ahead, if Greece is eventually offered a debt write down by its official creditors, the cost will eventually be borne by all European taxpayers. The socialization of private losses is commonly seen as a cardinal sin that financial assistance programs should strive to prevent.

[16] According to Pisani-Ferry, Sapir, and Wolff (2013), "Political reluctance in Europe to start debt restructuring, the fear of potential moral hazard effects and the absence of effective mechanisms to contain its possible financial fall-out made this option unappealing. The alternative, nearly-concessional lending within the framework of a large and long-lasting assistance programme, was not politically palatable either. This conundrum led the IMF and the EU to bet on the materialisation of optimistic tax revenue and privatisation assumptions. Instead of

The program did not appear to enjoy adequate financing assurances. At each review, the Fund must ensure that the member has secured firm financing commitments to implement the intended policies—at a minimum for a period of 12 months—and that there are good prospects for full financing until the end of the program. Conditional on the program's macroeconomic framework, IMF financial assistance under the SBA and the European financial commitment under the Greek Loan Facility met both conditions. But when outcomes began to deviate significantly from program assumptions, no additional financing was committed, casting doubts on whether the prospects for full financing until the end of the program were sufficiently strong.[17]

The Frontloading of Fiscal Adjustment

Quantitative conditionality focused on comprehensive monitoring of fiscal performance.[18] As shown in Annex 7.2, the quantitative performance criteria included ceilings on the primary deficit of the central government budget and changes in the financial assets of the social security funds and local governments; the level of primary current expenditure; and new government guarantees.[19]

The program envisaged an exceptionally strong, front-loaded fiscal effort through 2013 (Figure 7.9). It contemplated adjustment measures worth 11.1 percent of GDP in cumulative terms through 2013, with additional remedial measures in 2014 to reduce the deficit to below 3 percent of GDP. This large adjustment was presented as indispensable to bolster confidence and regain market access. In fact, it was needed to put the debt-to-GDP ratio on a

formulating a robust programme capable of withstanding adverse economic, political and financial developments, they did just the opposite. It is no surprise that these optimistic assumptions were not vindicated by events."

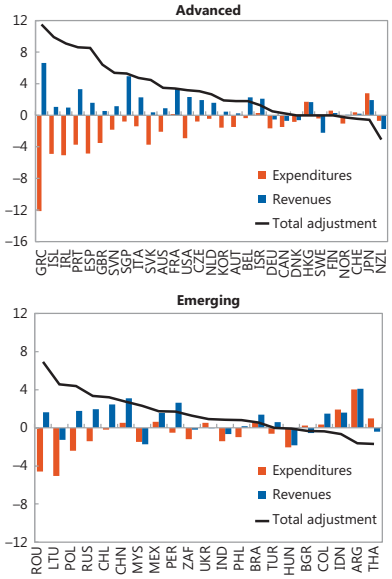
[17] In this respect, the internal review process reveals strong and increasing concerns on the side of IMF staff starting as early as end-January 2011, when the need for a definite change in strategy became clear.

[18] IMF conditionality can take different forms and usually includes both quantitative performance criteria (measurable conditions that the country must meet, in order to complete a review) and structural benchmarks (often non-quantifiable reform measures that are critical to achieve program goals and are intended as markers to assess program implementation during reviews). A fact sheet on IMF's conditionality is available at https://www.imf.org/external/np/exr/facts/conditio.htm. For the operational implications of the 2002 Conditionality Guidelines and the key principles underlying the design of conditionality in Fund-supported programs, see IMF (2014a).

[19] The performance criterion on Greece's general government primary cash balance was met for end-2010 but the criterion did not take account of the accumulation of arrears. Arrears were monitored via an indicative target that was breached by €3 billion, equivalent to a little more than 1 percent of GDP. The definition of the performance criterion was subsequently modified to incorporate domestic arrears.

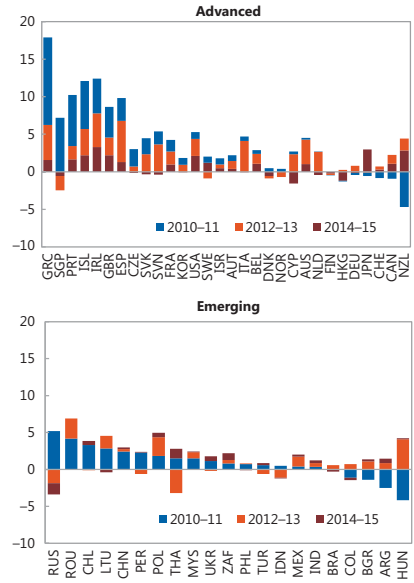
Figure 7.9. Composition and Phasing of Fiscal Adjustment

Change in Revenue, Expenditure, and Cyclically Adjusted Primary Balance, 2009–13
Selected Advanced and Emerging Economies
(In percent of GDP)



Note: Estimates do not exclude the effect of asset/commodity prices or one-off measures such as financial sector support on revenue and expenditure.
Source: IMF, *Fiscal Monitor*, October 2012.
[1] Changes in revenue are estimated in percentage points of GDP, which implicitly assumes an elasticity of revenue to GDP of one.
[2] Changes in expenditure are estimated in percentage points of potential GDP, which implicitly assumes an elasticity of expenditure to GDP of zero.

Change in Cyclically Adjusted Primary Balance, 2009–11, 2013–11, and 2015–13.
Selected Advanced and Emerging Economies
(In percent of potential GDP)

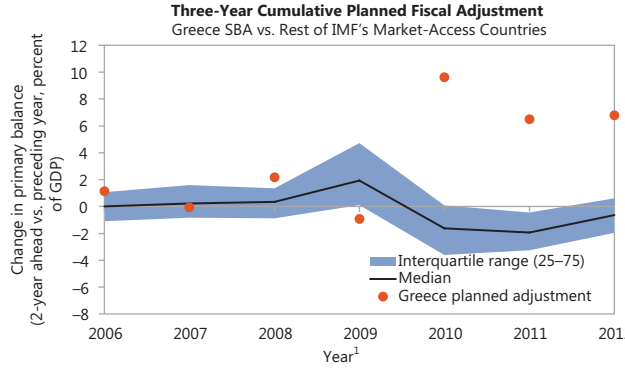


Note: Fiscal adjustment in 2010–11 refers to the change in the cyclically adjusted primary balance (CAPB) in 2011 compared to 2009; 2012–13 refers to the change in the CAPB in 2013 compared to 2011; and 2014–15 refers to the change in the CAPB in 2015 compared to 2013.
Source: IMF, *Fiscal Monitor*, October 2012.

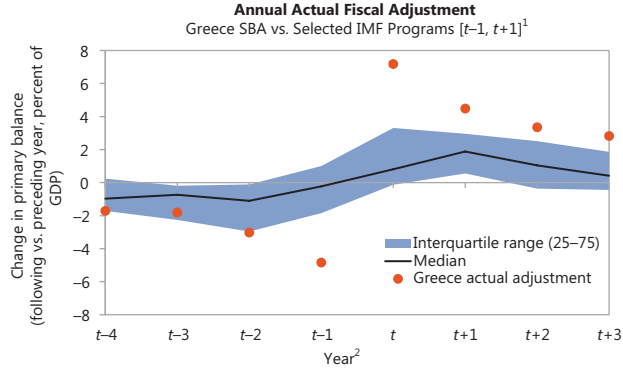
declining path from 2013, given that upfront debt relief had been ruled out and that additional financing—either by the IMF or by the euro partners—would have been politically infeasible.

The extent of the fiscal adjustment envisaged was exceptional by international and historical standards (Figures 7.9 and 7.10). Just as exceptional is the fact that Greece broadly achieved the planned fiscal adjustment in the face of worse-than-expected economic conditions. Its overall public deficit came down from above 15 percent of GDP in 2009 to around 3 percent at the end of 2013. While part of this improvement can be explained by the large drop in interest payments that resulted from improvements to the terms of lending by the EFSF/ESM and from the private debt restructuring agreement

Figure 7.10. Greece: Planned and Actual Fiscal Adjustment in International Perspective



Source: IMF, *WEO*.
[1] For rest of market access countries, projections refer to the spring *WEO* vintage in each year.



Sources: IMF, *WEO* and MONA database.
[1] Selected IMF programs denote the same sample of IMF programs featuring in Figure 7.1.
[2] *t* indicates the year of the program request.

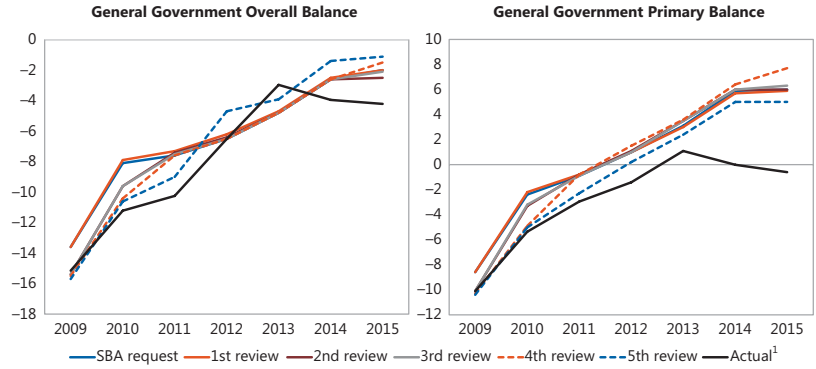
of February 2012, the actual improvement in the primary balance was also remarkable.

The improvement in the primary balance turned out to be almost as strong as initially envisaged, despite the dramatic deterioration that took place in growth vis-à-vis expectations and despite the starting point being worse than it was thought to be when the 2010 Stability Program was drawn up (Figure 7.11).[20] Even though the revenue base clearly shrank much more

[20] In April 2010, the estimated fiscal deficit for 2009 was revised to 13½ percent of GDP from the 12½ percent of GDP estimate that prevailed when the 2010 Stability Program was

Figure 7.11. Greece: Headline and Primary Fiscal Balance, Projections over the Stand-By Arrangement

(*In percent of GDP*)



Sources: IMF Country Reports and IMF, *WEO*.
[1] Refers to IMF, *WEO* (Spring 2016).

significantly than originally foreseen, the change in the primary deficit during 2010–11 was 8 percentage points of GDP—slightly above target despite the deep recession and revised-down budget numbers for 2009. However, starting from the second review it became clear that the ambitious primary balance cash targets were being met by running arrears and by unsustainable postponement of social security and defense spending. As a result, a tightening of conditionality was required and a new performance criterion for arrears introduced. To support this additional performance criterion, more ambitious structural benchmarks on commitment controls were also introduced (see the section "Structural Conditionality" below).

The automatic stabilizers were not allowed to operate and adjustments to the fiscal targets were not made until end-2011. When GDP contracted more than originally anticipated, the nominal deficit ceiling was routinely tightened in order to achieve the original targets (which were set in relation to GDP) and maintain the official financing envelope (Kopits, 2017). This tightening was tantamount to disallowing the operation of automatic stabilizers, thus aggravating the pro-cyclicality of the fiscal policy, which exacerbated the contraction. An explicit relaxation of the fiscal targets against a background of worse-than-expected economic conditions was made only at the time of the fifth review of the program, in December 2011. Once again, while an earlier adjustment of the targets could have been beneficial by tempering

formulated. The estimated 2009 fiscal deficit was revised again in December 2010, from 13½ percent to 15½ percent of GDP.

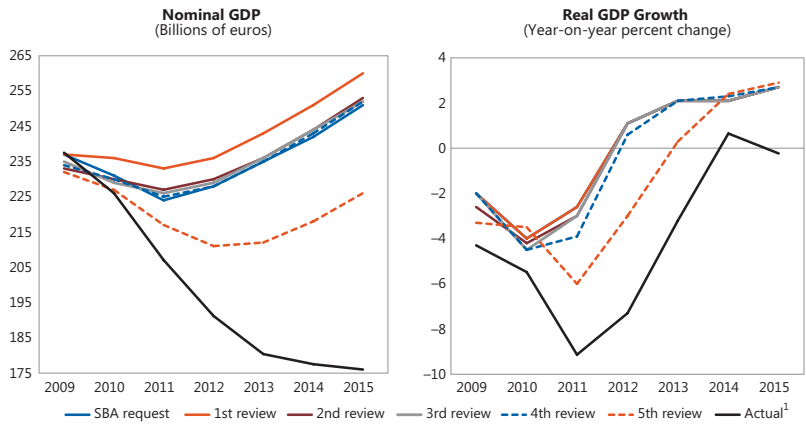
the contraction, the program would have ultimately required additional financing—a politically unpalatable option.

The drop in revenues thus had to be offset by further cuts in public spending.[21] About half of the adjustment in the primary deficit reflected lower spending. The expenditure measures focused on reducing public sector wages and social benefits, but with safeguards intended to protect the most vulnerable. Measures that were implemented in 2010–11 included cuts in public sector salaries, bonuses, and allowances, and steps to reduce health care spending on drugs. Other measures included cuts in capital spending and a reorganization of subnational governments (*kalikrates*). Revenue measures, including increases in VAT rates, had already been taken in May 2010 under the 2010 Stability Program. Additional tax policy measures that were implemented during the SBA-supported program comprised increases in indirect tax rates, including further VAT rate hikes; a new property tax; and somewhat higher income taxes. Efforts were also made to strengthen tax administration and raise tax collection rates.

Growth Forecasts and Fiscal Multipliers

Greece's economic slowdown proved much more severe than the program had anticipated (Figure 7.12). Data revisions complicate the comparison,

Figure 7.12. Greece: Nominal GDP and Real Growth, Projections over the SBA



Sources: IMF Country Reports and IMF, *WEO*.
[1] Refers to IMF, *WEO* (Spring 2016).

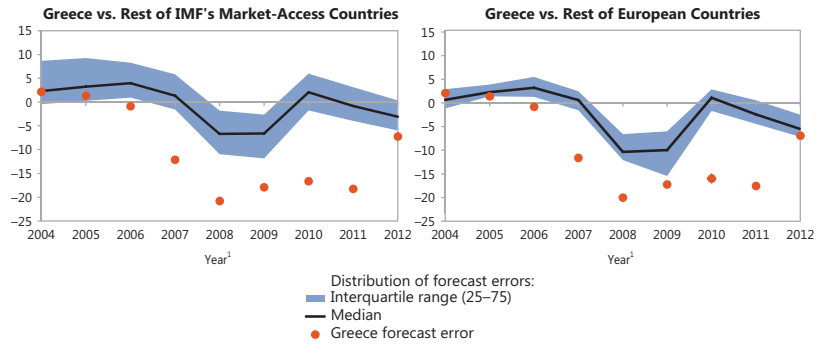
[21] The authorities introduced additional measures in 2011 (Medium-Term Fiscal Strategy, amounting to 10½ percent of GDP during 2011–14) once it became clear that the initial set of fiscal measures was insufficient to deliver the consolidation target.

but real GDP in 2012 was 17 percent lower than in 2009, compared to the 5½ percent decline that was projected in the SBA-supported program. Over the same period, nominal GDP was almost one-fifth lower, compared to the 2 percent decline initially forecasted. The original growth projections were largely maintained until the fifth review (December 2011) but were then marked down, with the expected recovery delayed until 2014. Projections for unemployment were raised in line with the severity of the contraction. The unemployment rate in 2012 was 25 percent, compared to the original program projection of 15 percent.

It is not unusual for IMF programs to disappoint in comparison to initial forecasts, but orders of magnitude are usually much smaller than those in the SBA for Greece. On the basis of an assessment of 159 programs, an earlier IEO evaluation found that growth disappointed in about 60 percent of programs, and that over a two-year period the average output shortfall was 1.5 percent, and was 6.4 percent in cases of capital account crises (IEO, 2003). An output shortfall as large as Greece's is thus exceptional even by IMF program standards. Also, in comparison with IMF forecasts made for other market access countries over the same crisis years (2010–12), the magnitude of Greece's growth forecast errors looks extraordinary (Figure 7.13).

The reasons behind these exceptional forecast errors were manifold. A first important reason why the Greek economy contracted more than expected was that the program over-relied on the confidence effects, restoration of market access, and improvements in the investment climate that its designers hoped would result from program implementation and completed structural reforms. In the event, confidence was badly affected by domestic social and political turmoil as well as by European policymakers' talks of a Greek exit from the euro (Meghir and others, 2016). Some of the adverse political developments were endogenous and followed from limited ownership of the program (see the section "Limited Ownership" below). The result was a sharp fall in private

Figure 7.13. Greece: Growth Forecast Errors in International Perspective
(Three-year cumulated growth forecast error (actual projection, in percent))



Source: IMF, *WEO*.
[1] For comparator countries, projections refer to the Spring *WEO* vintage of each year.

investment, as noted below (see the section "Weakening Program Performance" below). This outcome was in stark contrast to what was optimistically assumed in the program, where positive confidence effects were expected to lead to higher private sector growth, ultimately offsetting the contractionary effects of the fiscal retrenchment. To be sure, even if structural reforms had been transformative, a quick supply response was unlikely (IMF, 2015c).

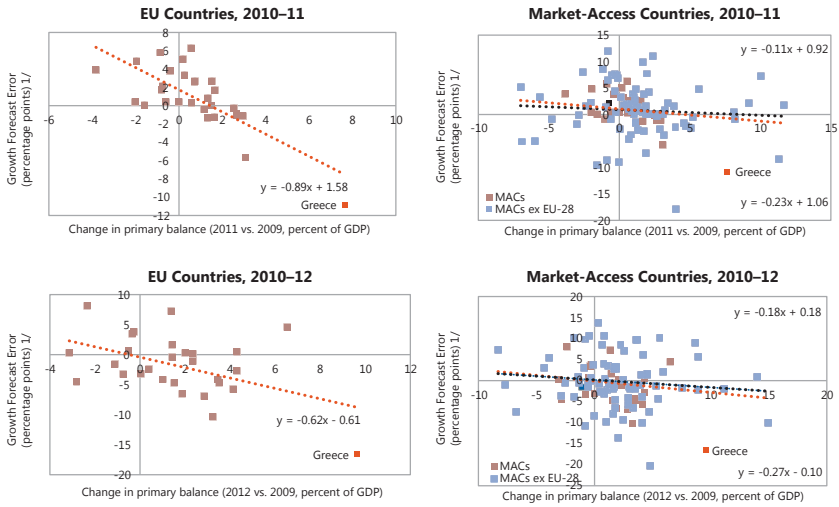
Second, the assumed fiscal multipliers were too low, implying a fiscal consolidation less costly than it actually turned out to be. The program initially assumed a multiplier of only 0.5 despite the staff's recognition that Greece's relatively closed economy and lack of an exchange rate tool would magnify the fiscal shock. Recent iterations of the Greek program have assumed a multiplier twice this size. Blanchard and Leigh (2013) admit that the IMF generally underestimated the contractionary impact of the fiscal stabilizations under its watch over the period 2010–12, particularly in the case of European countries.[22] They show that multipliers tend to be higher when households are short of liquidity and when monetary policy cannot provide an offset—influences that appear not to have been fully appreciated when the SBA-supported program for Greece was designed. Arguably, the contractionary impact of the simultaneous deficit stabilization programs that were conducted as part of the EC's efforts to implement the Stability and Growth Pact might have been also underestimated (Figure 7.14).

A third reason for the larger-than-expected contraction was that the peculiarities of the Greek export structure were not well taken into account when judging the program's ability to foster external adjustment. As noted by Gros and Alcidi (2010), the Greek economy is a rare case of a small closed economy: only a small part of Greek exports could be expected to depend on competitiveness; a more substantial part (food, commodities, and maritime services) could not be expected to respond to lower unit labor costs. Awareness of the peculiar structure of exports should have lowered the expectation of the potential contribution that exports could make to growth.

Finally, the size of potential GDP may have been overestimated. That is to say, actual growth before the crisis may have significantly outpaced potential growth as conventionally estimated. Part of the contraction after 2009 could be thus seen as a return to a potential growth path which was significantly lower than assumed in the program. If so, this implies that the fiscal policy (and export) multiplier may not have been as underestimated as it may appear. Regardless, it remains legitimate to ask why the IMF was so optimistic about the underlying growth potential of the economy and waited so long before revising downward its growth forecasts and adjusting the fiscal targets accordingly.

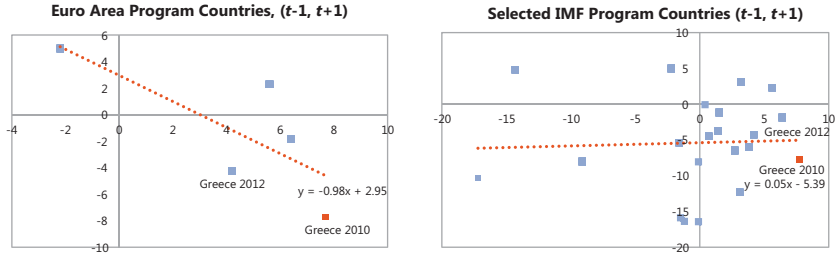
[22] For previous studies and commentaries identifying larger multipliers, see for example Fatas and Mihov (2001); Blanchard and Perotti (2002); Auerbach and Gorodnichenko (2010); Corsetti (2010); Ilzetzki, Mendoza, and Vegh (2013).

Figure 7.14. Growth Forecast Errors and Fiscal Consolidation Plans: International Comparison



Source: IMF, *WEO*.

[1] Vertical axis displays forecast error for real GDP growth in year 2010 and 2011 made in April 2010 *WEO* (top panel) and corresponding forecast error in year 2010, 2011 and 2012 made in spring 2010 *WEO* (bottom panel). Horizontal axis displays forecast of change in primary balance to GDP ratio between 2011 and 2009 made in April *WEO* 2010 (top panel) and forecast of change in primary balance to GDP ratio between 2012 and 2009 made in April 2010 (bottom panel).



Note: *t* denotes year of program request.

Source: IMF, MONA database.

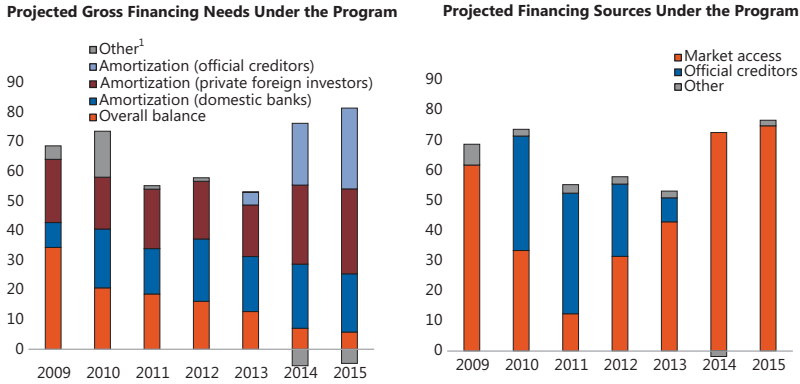
[1] Vertical axis displays forecast error for real GDP growth in year *t* and *t*+1. Horizontal axis displays forecast of change in primary balance to GDP ratio in year *t* and *t*+1.

Other Program Financing Assumptions

The financing strategy assumed that Greece would have regained market access from 2012. However, markets were concerned about the problem of large repayment obligations in 2014 and 2015 after the program expired (Figure 7.15). In addition, the prospects of an eventual private sector involvement (PSI)—and thereby of a migration of private debt into official

Figure 7.15. Greece: Projected Gross Financing Needs and Sources Under the Stand-By Arrangement

(*In billions of euros*)



Source: IMF Country Report No. 10/110.

[1] Includes bank assistance and stock-flow adjustments.

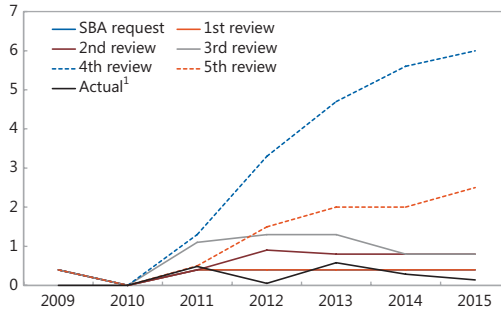
hands—might have deterred private lenders, given the seniority of official lenders. Subsequent research also suggests that the implicit assumptions about market access—assessed in terms of rollover rates—were overly sanguine compared to past experience in emerging markets facing exogenous shocks (see IMF, 2015c).

The three-year financing period of the SBA seemed relatively short. Given that the Greek program had so large a structural component, the question arises as to whether the Extended Fund Facility (EFF) should not have been utilized from the outset. Beyond the initial reservations of the Executive Board about using a facility that was originally intended for low-income countries for exceptional access by an advanced economy, there was the more crucial issue of whether the European partners were prepared to provide longer-term financing comparable to EFF terms (as the IMF would not want to be the last creditor standing). Tellingly, the conversion of the SBA into an Extended Arrangement that took place in 2012 was internally considered as early as a few months into the program, but the discussion was deferred pending consensus with the euro partners on a similar lengthening of their lending terms and agreement on PSI.

Despite the limited progress made in implementing the government's privatization plans, the fourth program review (July 2011) made highly optimistic assumptions about the privatization receipts compared to the original SBA request: the estimate was raised from €12.5 billion to €50 billion over the period 2010–15 (Figure 7.16). The optimism about privatization revenues signaled a virtual admission that the program was underfinanced, at a time when worse-than-expected economic conditions caused the underlying

Figure 7.16. Greece: Privatization Receipts, Projections over the Stand-By Arrangement

(*In percent of GDP*)



Sources: IMF Country Reports and IMF, *World Economic Outlook*.
[1] Refers to IMF, *WEO* (Spring 2016).

debt dynamics to start overshooting program projections by a large margin (Pisani-Ferry, Sapir, and Wolff, 2013; IMF, 2013c). The assumptions about privatization receipts were subsequently reversed and marked down substantially in the fifth review, in December 2011, once a deal over private sector involvement had been reached and more favorable official financing terms had been agreed with the European partners.

Structural Conditionality

Structural conditionality in the Greek SBA extended to three areas: (i) fiscal reforms; (ii) financial sector reforms; and (iii) competitiveness reforms. The detailed list of structural benchmarks (SBs) and prior actions (PAs) is summarized in Annex 7.3. For each measure, the annex also reports the date on which the structural benchmark or prior action was set, the corresponding target date, and the final status (e.g., "met," "not met," "partially met").

Fiscal reforms

The program focused heavily on structural fiscal reforms. These included: pension reform; tax administration reform; overhaul of the public financial management and the fiscal framework; reform of the debt management framework; strengthening of public sector reporting mechanisms, including statistical aspects. Supported by extensive IMF technical assistance, these reforms were meant to boost fiscal sustainability by helping strengthen control over revenues and expenditures.

Strengthening fiscal institutions was inevitably a complex and time-consuming task. Greece entered the crisis with a dysfunctional revenue

administration, as repeatedly acknowledged by earlier IMF Article IV consultations and technical assistance reports. Problems plagued all stages of the collection process. The VAT gap and the size of the informal economy as a proportion of the total economy were the highest in the EU, while the collection of tax debt and verifications of tax payers were among the lowest in the OECD. In 2010, the Greek authorities started to implement a medium-term plan for revenue administration, but long delays prevented the launch of basic operational functions such as collection enforcement. Greece also had a very weak public financial management system, as reflected in domestic arrears that amounted to 2½ percent of GDP at end-2009. Problems marred all stages of the spending process, including budgeting, spending control, and reporting. To address these, the SBA program supported a new budget framework law, enhanced spending control, and fiscal reporting mechanisms. By the end of the SBA, commitment-based controls had started to become operational, but arrears and lack of detailed data for general government entities remained an issue.

Financial sector reforms

The establishment of a Financial Stability Fund (FSF) was intended to cope with solvency pressures in Greece's financial sector. As the banking system was expected to undergo a period of disinflation—with likely negative repercussions on profits and balance sheets—the program envisaged the creation of a fully independent FSF that the government would fund out of the resources made available under the program (a structural benchmark for end-June 2010). FSF funding initially amounted to €10 billion, to accommodate expected losses under a stress-test scenario. The FSF was expected to have governance arrangements in place to ensure the safeguarding of international financial resources. To mitigate potential liquidity pressures, the government's support facilities for banking liquidity were extended. The ECB's suspension of the application of the minimum credit rating threshold in the collateral eligibility requirements on debt instruments issued by the Greek government was also intended to serve as a useful liquidity backstop.

The FSF was designed to provide capital support to the banks through the purchase of preference shares. To help limit the FSF's participation in the shareholder base of the banks, the preference shares were convertible into ordinary shares, with the benefit of strengthening the banks' core capital base. By providing investors with a stronger equity base, the FSF was expected to facilitate banks' re-access to capital markets and thus to limit their recourse to Eurosystem facilities. Should banks have been unable to expeditiously raise additional capital on their own and repay the FSF, a restructuring process was expected to take place, in line with EU requirements on competition and state

aid. The authorities were also expected to maintain close coordination with home and host country authorities within the EU framework of cross-border banking supervision.

As the recession intensified and liquidity tightened, the Greek financial sector became increasingly vulnerable. Financial sector distress was a result of the protracted recession combined with sovereign debt problems. By 2011, deleveraging in the financial sector and restructuring of state-owned banks were perceived to be necessary. ATE, the largest state-owned bank and the only Greek bank to fail the Europe-wide stress tests in mid-2010, had to be recapitalized. Sizable deposit outflows began in mid-2011, fanned by fears of a Greek euro exit.

The banks' capital needs dwarfed the FSF provision. As of the fourth review of the SBA-supported program, the purpose of the FSF changed: from topping up the capital of banks that had failed to raise private capital, to providing a substantial injection of public funds for banks that had been severely affected by the deep recession and prospects of PSI. In the context of the EFF-supported program, the amount needed for the FSF was estimated at €50 billion, up from the initial €10 billion estimated at the time of the SBA request. One reason for this large increase was that a sizable proportion of the government debt instruments that were disposed of by foreign banks and investors had ended up on the balance sheets of Greek banks. This migration of debt was the predictable consequence of the two-year delay in PSI, and served to wipe off the whole core capital of the banks (see the section "Bail Ins and Bail Outs" below).

Competitiveness reforms

The structural policies supported by the SBA were intended to boost competitiveness by enhancing the flexibility and the productive capacity of the economy. Lacking an external devaluation option, the program sought to ensure that wage and price developments would restore and then sustain international competitiveness, and progressively alter the structure of the economy towards a more investment- and export-led growth model. To this aim, the program envisaged a comprehensive structural reform agenda aimed at reducing rigidities in the labor market, liberalizing services, and improving the business environment.

Competitiveness-related structural conditions became more numerous as the review process progressed. The SBA request contained only one structural benchmark (SB) related to competitiveness: the preparation of a privatization plan. The second review set an SB on reforming the collective bargaining system and the third review set one on repealing closed professions. The fourth and fifth reviews contained numerous competiveness-related structural conditions. In this context, the Greek government was expected to work closely with the European Commission and the ECB to pursue reforms as specified in the memorandum of understanding attached to the IMF's Memorandum

of Economic and Financial Policies, particularly in the following areas: modernizing public administration; strengthening labor markets and income policies; improving the business environment and bolstering competitive markets; managing and divesting state enterprises; and improving the absorption of EU structural and cohesion funds.

After a good start, the bold structural reform program fell into uneven implementation. Despite good initial steps such as labor market reforms that addressed high entry/exit costs, implementation weakened due to capacity constraints, lack of a management structure overseeing the reform process, and resistance from vested interests.

In spite of strong commitments to privatization plans, outcomes were disappointing. In mid-2011, Greece launched a very ambitious privatization program to help support growth and debt reduction, with parliamentary approval of a privatization and real estate development strategy. The preparation of the assets, however, revealed that they were often encumbered by multiple problems that would take time to resolve, including unclear titles and ownership, debts, complicated contractual obligations, state-aid issues, and resistance by incumbents or related parties to bring the assets to market or restructure them. In addition, the recession generally reduced the value of all Greek assets, eroding sale proceeds. The IMF should have accounted appropriately for these risks, by reflecting them in more conservative projections about the expected timing and receipts from asset disposal.

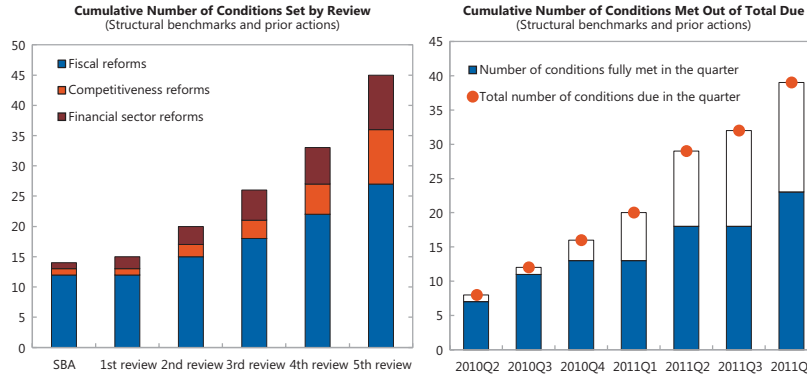
Program Follow-Up

Limited Ownership

According to program reviews, inadequate program implementation was a problem throughout 2011 and even until the fall of 2012. In fact, some measures that were adopted by the Parliament were not implemented by the administration, because the government was either unable or unwilling to act. As a result, structural conditionality eventually became much more detailed and less parsimonious, with further negative implications for the ownership of the program (Figure 7.17).

Little progress was made with politically difficult measures such as privatization, product and labor market reforms. As explicitly acknowledged by the staff in internal documents, the IMF recognized that vested interests had fiercely opposed structural reforms in Greece in the past, but at the beginning of the program it drew comfort from a number of factors: (i) the program was backed at the highest political levels in Greece and Europe; (ii) the most difficult actions had been taken as prior actions; and (iii) IMF technical assistance would support Greece's adjustment efforts. As it turned out, none of these factors proved compelling and the ownership of the program in Greece fell short of what was initially assumed.

Figure 7.17. Greece: Structural Conditionality Under the Stand-By Arrangement



Source: IMF Country Reports.

The IMF had concerns that implementation capacity might be weak based on its history of providing fiscal technical assistance to Greece. However, the extent to which administrative capacity was lacking in the public sector seems to have come as a surprise. In hindsight, it is debatable whether the program ever met the Fund's fourth criterion for exceptional access (i.e., a reasonably strong prospect of the program's success, taking into account institutional and political capacity to deliver adjustment).

As noted, structural conditionality became detailed as the program progressed. The IMF in general has, in recent years, moved toward focus on macro-critical structural reforms in programs and become more parsimonious in setting conditionality. Bucking these trends, the number of structural conditions set under the SBA-supported program for Greece was relatively large, and grew larger as the program progressed. By the fifth review, one of the fiscal structural prior actions had nine sub-prior actions. This proliferation of conditions partly reflected the IMF's recognition of the weaknesses in administrative capacity. The Fund's unprecedented TA programs in Greece, especially on revenue administration, may have gone beyond providing technical advice and taken on an institution-building dimension (Annex 7.4). The detailed conditionality was considered macro-critical and essential given the dire need to strengthen Greek fiscal institutions.

The burden of adjustment was not sufficiently spread across different strata of the society. Reform efforts in Greece under the program might have been more enduring had more visible progress been made in getting people on high incomes to pay their taxes. The risks to public support for the program from not reducing tax evasion were continually flagged by the Fund, but the lack of political will to make clear progress with improving tax compliance was a considerable obstacle to the program's success. As evidenced in several internal

documents, the program also made an attempt to reflect distributional concerns by shielding people on low incomes from cuts in state pensions and by calling on protected sectors (like closed professions and product markets) to play their role.

Weakening Program Performance

In October 2010, the debt crisis in Europe reached a watershed at the Summit in Deauville, where a permanent European crisis-resolution mechanism "comprising the necessary arrangements for an adequate participation of the private sector" was called for. Although the Deauville statement referred not to the handling of the ongoing European crisis but to a European crisis-resolution framework that was intended to replace the EFSF in 2013, the statement was widely interpreted as an official signal that sovereign debt restructuring would henceforth be acceptable in European Union countries. The result was a sharp widening of the bond spreads of peripheral European countries. In this setting, Greece's prospects of a quick return to international capital markets by early 2012—as envisaged in the May 2010 SBA program—looked increasingly unlikely.

The program remained roughly on track until the third review in March 2011. Then a sharp deterioration took place between spring 2011 and spring 2012. Instead of stabilizing, as had been expected in March 2011, the decline in domestic demand accelerated sharply in 2011 and continued in 2012. In 2011, fixed investment declined by close to 20 percent. The tumbling in domestic demand was not offset by an expansion in foreign trade. The astounding collapse in demand largely mirrored the extreme uncertainty surrounding the prospects of the Greek economy as exit fear spiked.

In spite of growing evidence of their lack of realism, the underlying assumptions of the program were left largely unrevised until the fifth review in December 2011. Thanks only to more favorable official financing terms (through the EFSF as agreed at the July 21, 2011 Summit) and to the PSI deal reached at the October 26, 2011 Summit, it became possible to recalibrate the whole macro-framework on the basis of more realistic assumptions, without conceding that the debt was no longer sustainable. Thus in the fifth review, the debt sustainability analysis was cast with more conservative assumptions. At the same time, the projections for privatization receipts were dramatically lowered, possibly reflecting the fact that these receipts had become less important for debt sustainability once PSI was in prospect—and that equity prices had, by that stage, come down sharply. After three months, in March 2012, the SBA was converted into an Extended Arrangement.

Overall, the need to reach agreement with other creditors on macro-critical issues in order to receive their financing assurances limited flexibility. The Fund's scope to modify key macroeconomic assumptions and

targets, flag concerns about the financing assurances, and adhere to the parsimony principle on structural reforms during the first four program reviews was very limited, and significantly smaller than what had normally been the case in exceptional access programs. Program reviews are typically the vehicle to recalibrate IMF's program assumptions and targets incorporating all the information available since the approval of the program. And they are particularly useful, and widely used, in exceptional access arrangements. However, the need to reach agreement with other troika partners on macro-critical issues in order to receive their financing assurances virtually eliminated this option, as any change had to be mutually agreed by all the institutions.

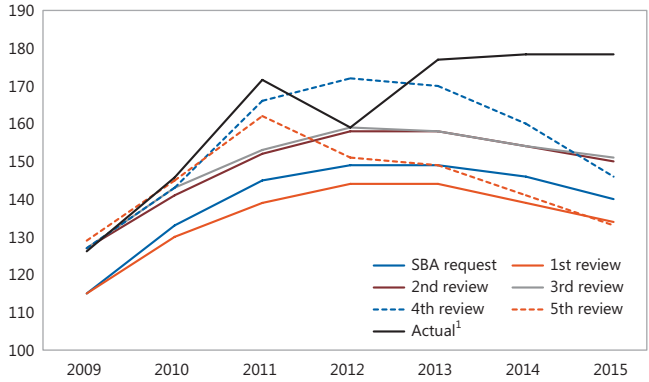
Debt Dynamics

While for the first year or so the IMF staff concluded that the Greek debt was sustainable, "on balance," the IMF gave up such a view by October 2011. Then, the Fund's DSA noted a more severe drop in output than expected, a slower expected recovery, continued exclusion from capital markets, and lower privatization proceeds. Under the revised macro-policy assumptions—but without accounting for the PSI—Greece's public debt could not be considered sustainable any longer, failing to decline or stabilizing at very high levels for even small deviations from the macro and program targets.

Despite the steep consolidation carried out, debt-to-GDP levels expanded much more significantly than forecast in the debt sustainability analysis (Figure 7.18). The most important factor explaining the more unfavorable debt dynamics was the effect of lower GDP. The worse-than-expected growth

Figure 7.18. Greece: Gross Public Sector Debt, Projections over the Stand-By Arrangement

(*In percent of GDP*)



Sources: IMF Country Reports and IMF, *WEO*.

[1] Refers to IMF, *WEO*, Spring 2016.

outlook did not just make deficit reduction harder, but it also made it impossible to translate this successful reduction into lower debt-to-GDP ratios. Contingent liabilities associated with banking recapitalization also increased as the recession deepened, as noted earlier.[23]

In the fifth review, the IMF explicitly admitted that "experience to date under the program suggests that Greece may not be able to set a new precedent by realizing at the same time and from very weak initial conditions a large internal devaluation, fiscal adjustment and privatization program." A fundamental problem of the program was the inconsistency between attempting to regain price competitiveness and simultaneously trying to reduce the debt-to-nominal GDP ratio. If the assessment that Greece needed a price-competitiveness adjustment of 20–30 percent was right, debt sustainability had to prove testing; ceteris paribus, a downward adjustment in prices implies a worsening of conditions for debt sustainability. Indeed, despite higher inflation, nominal GDP was significantly short of the rebound that was expected at the outset of the program. By the end of the program, it was more than 25 percent lower than the expected level (as shown earlier in Figure 7.12).

More favorable official financing conditions and debt restructuring only partially offset these adverse debt dynamics. Thus, by the end of the SBA, the reduction in the Greek debt-to-GDP ratio with respect to the initial forecast was quite limited, in spite of the substantial reductions that had taken place in interest payments and gross financing needs.

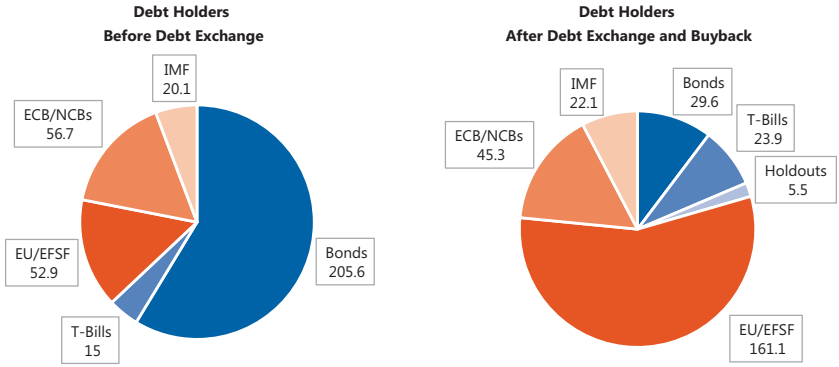
Bail Ins and Bail Outs

The possibility of restructuring private claims on the Greek sovereign—initially rejected as an option—was eventually reconsidered in the fall of 2011. By then, the deepening recession in Greece and the difficulties of the EU and IMF in agreeing on a credible package of structural reforms with the Greek government had lowered expectations of the growth path that Greece might realistically achieve and had exacerbated worries about the country's debt-servicing capacity. This view was corroborated by a new debt sustainability analysis that the IMF prepared for the October 26, 2011 Euro Summit. That analysis concluded that Greece's debt was no longer sustainable except "with much stronger PSI." This recognition set the stage for a new round of PSI negotiations, which finally resulted in a major debt exchange in spring 2012.

By late April 2012, Greece had successfully completed the exchange of approximately €200 billion in debt held by the private sector for 10- to 30-year exchange bonds, with a face value of 31.5 percent of the original bonds and paying 2 to 4.3 percent interest plus an up-front payment of 15 percent of their original face value over two years (Zettelmeyer, Trebesch, and Gulati, 2013). This achieved a €107 billion direct reduction in gross debt

[23] An additional important factor was the higher-than-expected initial debt level, which was in fact corrected after the start of the program by more than 14 percent of GDP.

Figure 7.19. Greece: Restructuring of Sovereign Debt, 2012



Note: The figure shows Greek government and government-guaranteed debt owed to private creditors (blue) and official creditors (orange) in billions of euros. "ECB/NCBs" debt refers to ECB SMP holdings as well as holdings by national central banks in the euro area. "EU/EFSF" loans include the GLF loans as well as the EFSF loans. "T-bills" are privately held short-term debt instruments. "Bonds" include also guaranteed debt issued by banks.
Source: Zettelmeyer, Trebesch, and Gulati (2013).

(€200 billion less €137 billion forgiven, plus a €30 billion up-front "sweetener"), representing a 53.5 percent cut in the nominal value of Greek debt held by private investors and exchanged (and 51.9 percent of the total eligible privately held debt) (Figure 7.19).

However, the €200 billion in debt exchanged accounted for only 56.2 percent of Greece's total debt at end-2011. Almost all of the rest was exempt—including, importantly, about €21 billion held by the IMF; €53 billion held by euro area governments in the Greek Loan Facility; and €57 billion held by the ECB from its Securities Markets Program purchases as well as by national central banks. In addition, losses by Greek banks on their holdings as a result of the debt exchange required recapitalization, necessitating new official borrowing to cover these needs (IMF, 2013b).[24]

The net debt reduction was thus €85 billion—or 23.9 percent of Greece's total public debt at end-2011—and as such it was insufficient to reestablish solvency decisively. Nonetheless, it had dramatically affected Greece's creditor structure. In less than a year, the structure of Greek government debt had been turned upside down, with privately held debt (bonds and T-bills) now accounting for only about 20 percent of the total. Most strikingly, privately-held sovereign bonds had been virtually eliminated. In mid-February 2012, banks and other investors still held almost €206 billion of Greek bonds. But after the April exchange and the subsequent buyback this figure had shrunk to a mere €35 billion (€29.5 billion in the form of new bonds and €5.5 billion of old Greek

[24] The banks' recapitalization needs following the 2012 debt restructuring amounted to €40.5 billion. The bulk of it—€37.7 billion—were direct losses from the PSI on banks holding of the restructured debt.

government bonds held by holdouts). At the same time, holdings of official loans by other euro area governments increased from €58 billion in early 2012 to more than €160 billion in late 2012, with a further €35 billion committed for 2013. In this respect, the 2012 Greek PSI can be labeled as the most dramatic credit migration from private into official hands in the history of sovereign debt.

Was the restructuring successful? On the one hand, the exchange succeeded in meeting the conditions imposed by the troika—that is, reaching the ambitious nominal debt-reduction target set in October 2011, excluding the holdings of the ECB, and avoiding financial collapse in Greece and beyond. On the other hand, its timing, execution, and design delivered too little from the perspective of Greece, created a large risk for European taxpayers, and set precedents that are likely to make future debt restructuring in Europe more difficult. The experience clearly calls for a more systematic approach to future debt restructuring.

Conclusion and Lessons

The need to innovate often arises in an emergency and nimbleness is an essential element of effective crisis management. While the IMF must thus retain flexibility to respond to a crisis, management and staff must ensure that any crisis response should be grounded in in-depth analyses and follow a transparent decision-making process. To be sure, responding to a crisis in the euro area posed new challenges to the IMF. Even so, the prospect of financing a potentially very large program in an advanced, financially developed and financially open economy should not have come as a surprise. Neither should the prospect of working with a regional partner have been unthinkable, given the proliferation of regional financing arrangements in various parts of the world. As it turned out, however, both the revision of the exceptional access framework to account for the risk posed by "systemic spillovers" and the modality of engagement with euro area institutions were decided with little preparation and inadequate analysis:

(a) The decision-making process that ultimately led to the revision of the exceptional access policy clearly lacked transparency. The need for a policy change was not disclosed to the Board until the staff report had been circulated. The policy change was embedded in the report requesting the Greek SBA and, therefore, was to be implicitly approved along with the formal and explicit request for Fund resources. Neither management nor staff drew the attention of the Board to the proposed decision itself or to the fact that the exceptional access criteria would effectively be modified by approving the SBA. A transparent and informed internal decision-making process, though it may not have led to a different outcome, certainly would have enhanced the legitimacy of the decision itself and weakened the perception that the IMF yielded to political pressures.

(b) Before 2013, the Fund never seriously considered how best to engage a regional partner in joint conditional lending operations (IMF, 2013a). An ad hoc collaboration approach—such as the one adopted for Greece—risks reducing the predictability of financial assistance and

> delaying assistance when it is needed. Discrepancies across institutions can lead to situations where one institution may be in a position to lend when the other is not, especially when their objectives differ. At the same time, too much flexibility on the part of the IMF may give rise to a perception of lack of evenhandedness and differentiated treatment among its members. In this perspective, a set of mutually agreed cooperation principles with regional financing arrangements should be established, ensuring a consistent approach to coordinating conditional lending between such arrangements and the Fund (Kincaid, 2017).

Departures of outcomes from predictions are often unavoidable in crisis situations. Program design must factor in uncertainty regarding both data and economic knowledge, including models used for forecasts and policy analysis. In the case of Greece, departures of outcomes from baseline predictions were unusually large. Irrespective of any particular methodological approach used by the Fund, it must always be borne in mind that mean forecasts are necessarily subject to considerable uncertainty. This is particularly the case in a crisis situation, where unexpected external developments are bound to happen and where the economic and social costs associated with worse-than-expected outcomes can be potentially large. In this context, staff should be encouraged to produce policy analyses based on a range of alternative assumptions or "fan charts" of the kind used by major central banks. Policy decisions, in turn, should weigh the worst case scenario in line with the Fund's risk aversion and set aside contingency plans if risks materialize.[25] This could help bolster the robustness of the Fund's decision-making process to adverse shocks and dispel the suspicion of politically-motivated optimism.

Burden-sharing (domestic, regional, and global) must be an integral part of program design and crisis resolution. This will help ensure broad political support for needed adjustment measures and—in the end—a greater chance of their success. In Greece, inadequate concern about domestic burden-sharing undermined efforts at improving tax compliance and led to limited efforts at liberalizing the product markets. At the global level, considerations of burden sharing and moral hazard would have weighed the obligation of borrowers to service debt and the recognition that lenders should be penalized for unwise decisions. If preventing international contagion was an essential concern, as argued at the time, the cost of its prevention should have been borne—at least in part—by the international community as the prime beneficiary (Mody, 2015; Sandri, 2015). In this context, the Greek experience is a reminder that the global cost of a sovereign debt crisis can be lessened by a well-designed mechanism for sovereign debt resolution (Gelpern, 2015). Such reforms should be part of the IMF's broader and continuous effort to reduce the cost of crisis resolution through a market-based solution (Hagan, 2014).[26]

[25] There is a wide body of literature on decision-making that develops the theory of avoiding worst-case scenarios (see, for example, Hansen and Sarget, 2007).

[26] On this point, see also the 2014 reform of the Fund's lending framework in the context of sovereign debt vulnerabilities and the 2016 modification of the exceptional access criteria (IMF, 2014b; IMF, 2016a; IMF, 2016b; and Box 7.3).

Annex 7.1. The European Lending Framework: An Overview

Arrangement	Establishment/ Origin	Objectives	Type	Resource Size and Funding Structure	Size Relative to GDP/IMF Quota (2011, Percent)	Lending Instruments/ Conditionality	Fund Engagement	Institutional Frameworks
1. Balance of Payments Assistance Facility	Established in 2002 to provide medium-term financial assistance for non-euro area EU member states in financial difficulties.Originally the medium-term financial assistance set up in 1971 to avert balance of payments crises in the context of European integration.	To achieve orderly exchange rate conditions, encourage applicable member states to adopt economic policy measures likely to prevent the occurrence of an acute balance of payments crisis and to support its efforts towards convergence.	Lending facility financed by market borrowing by the EU.	Maximum lending capacity is €50 billion. Financed through capital markets using the creditworthiness of the EU, and lent under the same conditions under which it was borrowed (back to back loans).	1.5/212.3	Loans and appropriate financing facility. Can be used for precautionary financing. Amount, duration, and other terms are decided by the Council. Program and conditionality are presented in an MOU and loan agreement.	No formal link to Fund-supported program but organized jointly in recent cases; members obliged to consult EU before approaching IMF	Council Regulation No. 332/2002. Decisions are made by qualified majority of the Council acting on a proposal from the Commission made after consulting with the Economic and Financial Committee.

(*Continued*)

Annex 7.1. The European Lending Framework: An Overview *(concluded)*

Arrangement	Establishment/ Origin	Objectives	Type	Resource Size and Funding Structure	Size Relative to GDP/IMF Quota (2011, Percent)	Lending Instruments/ Conditionality	Fund Engagement	Institutional Frameworks
2. European Financial Stabilization Mechanism (EFSM)	Established in 2010, essentially reproducing EU balance of payments assistance facility for all EU member states.	As above, but available to all EU member states.	Lending facility financed by market borrowing by the EU.	Maximum lending capacity is €60 billion. Financed through capital markets using the creditworthiness of the EU.	0.5/69.6	Loans and appropriate financing facility. Can be used for precautionary financing. Amount, duration, and other terms are decided by the Council. Program and conditionality are presented in an MOU and loan agreement.	The EFSM Regulation states that its activation will be in the context of a joint EU/IMF support.	Council Regulation No. 407/2010. Decisions are made by qualified majority of the Council acting on a proposal from the Commission made after consulting with the Economic and Financial Committee.
3. European Financial Stability Facility (EFSF)	Established in May 2010 as a temporary mechanism to support euro area member states until June 2013.	Preserve the financial stability of the Economic and Monetary Union by providing temporary stability support to euro area member states.	Lending and other financing facility financed by market borrowing.	Maximum lending capacity was €440 billion when first set up. Borrowings are backed by guarantees of euro area member states in accordance with their share in paid-up capital of the ECB.	4.7/702.4	(i) Loans to member states in financial difficulties; (ii) intervention in debt primary and secondary markets; (iii) precautionary assistance; (iv) loans to governments for bank recapitalization.	The Framework Agreement envisages that financial support shall be provided in conjunction with the IMF.	Private company set up under Luxembourg law.

Arrangement	Establishment/ Origin	Objectives	Type	Resource Size and Funding Structure	Size Relative to GDP/IMF Quota (2011, Percent)	Lending Instruments/ Conditionality	Fund Engagement	Institutional Frameworks
4. European Stability Mechanism (ESM)	Inaugurated in October 2012 as a permanent crisis resolution mechanism designed to safeguard financial stability in the euro area.	To provide financial assistance to euro area member states experiencing or threatened by financing difficulties	Loan and other financing facility drawn from pooled member resources (via capital contributions), supplemented by market borrowing.	Maximum lending capacity is €500 billion (combined lending capacity of EFSF/ESM is €700 billion) against capital contribution of €700 billion. €80 billion is paid-in capital, provided in 5 equal installments. In addition, €620 billion callable capital from 17 euro area member states.	5.6/798.1	(i) Loans to member states in financial difficulties; (ii) Intervention in debt primary and secondary markets; (iii) precautionary assistance; (iv) Loans to governments for bank recapitalization.	A euro area member state requesting financial assistance from ESM is expected to address, wherever possible, a similar request to the IMF.	Intergovernmental institution under international law. Board of Governors are the finance ministers of euro area member states. Most important decisions require unanimity. Emergency voting procedure allows approval of financial assistance by a qualified majority of 85% of the votes cast.

Source: IMF (2013a).

Annex 7.2. Greece: Quantitative Performance Criteria, 2010–13

(In billions of euros)

	2010							2011									2012		2013
	Jun		Sep		Dec			Mar		Jun		Jul		Sep		Dec	Mar	Dec	Dec
	Target	Actual	Target	Actual	Target	Adj. Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Target	Target [1]	Target [1]
I. Quantitative performance criteria																			
Floor on the modified general government primary cash balance	–5.0	–3.9	–4.0	–3.5	–5.7	–5.7	–5.5	–2.0	–0.9	–4.3	–4.9	–5.1	–4.9	–5.0	–5.3	–5.1	–0.4	1.3	7.4
Ceiling on state budget primary spending	34.0	28.4	50.0	42.4	67.0	67.0	61.3	14.7	13.4	30.0	28.4	34.7	33.5	44.5	42.0	60.8	13.7	58.7	69.0
Ceiling on the overall stock of central government debt	342.0	316.7	342.0	327.5	342.0	366.0	340.0	394.0	365.9	394.0	364.5	394.0	377.3	394.0	371.1	394.0	408.9	408.9	…
Ceiling on the new guarantees granted by the central government	2.0	0.3	2.0	1.2	2.0	2.0	1.3	1.0	0.1	1.0	0.3	1.0	0.3	1.0	0.6	1.0	0.0	0.0	0.0
Floor on privatization receipts	…	…	…	…	…	…	…	…	…	…	…	0.4	0.4	1.7	0.4	1.7	5.0	11.0	20.0
II. Continuous performance criteria																			
Ceiling on the accumulation of new external payments arrears on external debt contracted or guaranteed by general government	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
III. Indicative targets																			
Ceiling on the accumulation of new domestic arrears by the general government	0.0	1.0	0.0	0.8	0.0	0.0	3.0	0.0	4.3	0.0	4.0	0.0	3.9	0.0	3.8	0.0	0.0	0.0	0.0

Source: IMF Country Reports.

[1] Indicative.

Annex 7.3. Greece: Structural Conditionality

Measures		Date	
Prior actions (PAs) and structural benchmarks	**Set**	**Target**	**Status**
Fiscal sector			
Reduce public wage bill by cutting bonuses/allowances; and pension bonuses (except minimum pensions).	Request	PA	Met
Increase standard VAT rate from 21 to 23 percent and reduced rate from 10 to 11 percent and excise tax rates on alcohol, tobacco, and fuel with a yield of at least €1.25 billion in the remainder of 2010.	Request	PA	Met
Appoint staff team and leader in General Accounting Office responsible for general government in-year cash reporting.	Request	PA	Met
Adopt and start to implement a reorganization of sub-central government with the aim to reduce the number of local administrations and elected/appointed officials (*kalikrates*).	Request	Jun-10	Met
Submit to Parliament amendments to Law 2362/1995 to (i) require the Ministry of Finance to present a three-year fiscal and budget strategy, (ii) introduce topdown budgeting with expenditure ceilings for the State budget and multi-year contingency margins, (iv) require a supplementary budget for any overspending above the contingency, (v) and introduce commitment controls. The amended law should be immediately effective, including in the context of the 2011 budget.	Request	Jun-10	Met
The National Actuarial Authority to produce a report to assess whether the parameters of the new system significantly strengthen long-term actuarial balance.	Request	Jun-10	Met with delay
Adopt a comprehensive pension reform that reduces the projected increase in public spending on pensions over the period 2010-60 to 2½ percent of GDP.	Request	Sep-10	Met
Establish a commitment register in all line ministries and public law entities. Begin publishing monthly data on general government in-year fiscal developments (including arrears).	Request	Sep-10	Met
Publish 2009 financial statements of the ten largest loss-making public enterprises, audited by chartered accountants, on the official website of the Ministry of Finance.	Request	Sep-10	Met
Put in place an effective project management arrangement (including tight MOF oversight and five specialist taskforces) to implement the anti-evasion plan to restore tax discipline through: strengthened collection funds—of the largest debtors; a reorganized large taxpayer unit focused on the compliance of the largest revenue contributors; a strong audit enforcement and recovery of tax arrears—coordinated with the social security program to defeat pervasive evasion by high-wealth individuals and high-income self-employed, including prosecution of the worst offenders; and a strengthened filing and payment control program.	Request	Sep-10	Met

(*Continued*)

(Continued)

Measures		Date	
Prior actions (PAs) and structural benchmarks	**Set**	**Target**	**Status**
Publish a detailed report by the ministry of finance in cooperation with the single payment authority on the structure and levels of compensation and the volume and dynamics of employment in the general government.	Request	Dec-10	Met with delay
Adopt new Regulation of Statistical Obligations for the agencies participating in the Greek Statistical System.	Request	Dec-10	Met with delay
Pass legislation to: (i) streamline the administrative tax dispute and judicial appeal processes; (ii) remove impediments to the exercise of core tax administration functions (e.g. centralized filing enforcement and debt collection, indirect audit methods, and tax returns processing); and (iii) introduce a more flexible human resource management system (including the acceleration of procedures for dismissals and of prosecution of cases of breach of duty).	2nd review	Feb-11	Met with delay
Appointment of financial accounting officers in all line ministries and major general government entities (with the responsibility to ensure sound financial controls).	2nd review	Mar-11	Met with delay
Publish the medium-term budget strategy paper, laying out time-bound plans to address: (i) restructuring plans for large and/or lossmaking state enterprises; (ii) the closure of unnecessary public entities; (iii) tax reform; (iv) reforms ot public administration; (v) the public wage bill; and (vi) military spending.	2nd review	Apr-11	Met with delay
Articulate a strategic plan of medium-term revenue administration reforms to fight tax evasion.	3rd review	Jun-11	Met with delay
Publish three consecutive months of consistent arrears and consolidated general government fiscal reports (excluding small local governments).	3rd review	Jun-11	Met with delay
Adopt the necessary changes to enact the plan to reform the general government personnel system.	3rd review	Jun-11	Met with delay
Parliament to approve medium-term budget strategy (MTFS).	4th review	PA	Met
Government to legislate key fiscal-structural reforms in an MTFS Implementation Bill.	4th review	PA	Met
Government to enact legislation in the context of MTFS implementation (phase II) to: (i) introduce pension adjustment bill stipulating freezes through 2015, introducing individual social security numbers, caps, means testing, and rationalizing benefits of pension funds; (ii) introduce single public pay scale bill, temporarily freeze automatic progression, and halve productivity allowance; and (iii) close 40 small public entities, merge 25 more small entities, and close an additional 10 large entities under line ministries and in the social security sector.	4th review	Aug-11	Met with delay
Government to achieve quantitative targets set under its anti-tax evasion plan.	4th review	Dec-11	n.a.
Government to complete key actions to implement the various measures approved in the context of the first MTFS reform bill and anticipated in the second set of reforms bills, including the reform of the public sector wage grid and the closure and/or merger of extra- budgetary funds.	5th review	PA	Met

Measures		Date	
Prior actions (PAs) and structural benchmarks	**Set**	**Target**	**Status**
Government to enact spending reductions (including pensions and earmarked spending and advanced removal of the heating fuel subsidy) and revenue measures (including reducing PIT thresholds and reductions) as described in Memorandum of Economic and Financial Policies paragraph 6.	5th review	PA	Met
Parliament to approve a tax reform package, including (i) a simplification of the code of Books and Records, (ii) the elimination of several tax exemptions and preferential regimes under the corporate income tax and the VAT; (iii) simplification of the VAT and property tax rate structures; and (iv) a more uniform treatment of individual capital income.	5th review	Mar-12	n.a.
Government to undertake a thorough review of public expenditure programs to identify 3 percent of GDP in additional measures (including a 1 percent of GDP buffer of potential additional measures).	5th review	Jun-12	n.a.
Government to meet newly introduced and more ambitious targets for audits and debt collection and the resolution of administrative appeals.	5th review	Dec-12	n.a.
Competitiveness reforms			
Prepare a privatization plan for the divestment of state assets and enterprises with the aim to raise at least 1 billion euro a year during the period 2011-2013.	Request	Dec-10	Met
Table legislation to reform the system of collective bargaining, including to eliminate the automatic extension of sectoral agreements to those not represented in negotiations, and guarantee that firm level agreements take precedence over sectoral agreements without undue restrictions.	2nd review	Dec-10	Met
The Council of Ministers to adopt a comprehensive privatization plan through 2015.	3rd review	Jul-11	Met with delay
Parliament to approve privatization and real estate development strategy.	4th review	PA	Met
Government to legislatively establish a Privatization Agency (a private law vehicle into which privatizable assets will be transferred to be sold).	4th review	PA	Met
Government to (i) shift a second group of assets into the privatization fund covering transactions to be completed through end-2012; and (ii) appoint legal, technical, and financial advisors for 14 projects to be completed by end-2012.	5th review	PA	Met
Government to enact legislation to (i) allow worker representatives to negotiate both special and regular firm-level agreements; (ii) suspend the "favorability clause" in wage negotiations until at least 2015; and (iii) suspend until at least the end of 2014 the possibility to extend sectoral agreements to parties not represented in the negotiations.	5th review	PA	Met
Government to screen specific service sector legislation and repeal or modify unnecessary and outdated regulations to ensure full consistency with the new law liberalizing all professions and income-generating economic activities.	5th review	Mar-12	n.a.

(*Continued*)

(Continued)

Measures		Date	
Prior actions (PAs) and structural benchmarks	**Set**	**Target**	**Status**
Government to enact legislation to (i) reduce the employers' share of social security contributions, including by rationalizing and consolidating small earmarked funds and broadening the base ; and (ii) improve the administration of security contribution collections, including by combining collection functions.	5th review	Jun-12	n.a.
Financial sector			
Establish the independent Hellenic Financial Stability Fund (HFSF) to preserve the financial sector's soundness and thus its capacity to support the Greek economy by providing equity support to banks as needed.	Request	Jun-10	Met
Enactment of €25 billion bond guarantee for bank liquidity.	1st review	PA	Met
Pass legislation to separate the core consignment activity from the commercial activities of the Hellenic Consignment and Loan Fund.	2nd review	Mar-11	Met with delay
Government to put forward for legislative adoption a new tranche of government guarantees for uncovered bank bonds.	3rd review	Mar-11	Met with delay
Commercial banks to submit medium-term funding plans to the ECB and the Bank of Greece.	3rd review	May-11	Met
Parliament to pass legislation revising the HFSF operating framework (to address conditions for recapitalization) and revising the bank resolution framework (in particular, the deposit guarantee scheme, and the early intervention and bank liquidation frameworks).	4th review	Sep-11	Met with delay
Government to enact legislation to address outstanding issues regarding the governance arrangements for financial oversight agencies, including (i) organizational arrangements for the Bank of Greece; (ii) the corporate governance arrangements for the HFSF; and (iii) the governance arrangements for the Hellenic Deposit and Investment Guarantee Fund.	5th review	Dec-11	n.a.
Bank of Greece and HFSF to complete a memorandum of understanding to further strengthen their cooperation (sharing of appropriate supervisory information).	5th review	PA	Met
Bank of Greece to complete bank capital needs assessment.	5th review	Feb-12	n.a.

Annex 7.4. IMF Technical Assistance in Greece, March 2010–March 2012

Department	Purpose	Date
MCM	Banking supervision	March 2010
FAD	Public financial management: initial analysis and priority reforms	April 2010
FAD	Revenue administration: initial analysis and reform priorities	April 2010
STA	Data quality and misreporting (K-1 Report)	April 2010
FAD	General tax policy	May 2010
MCM/FAD/LEG	Financial instruments	May 2010
FAD	Expenditure Policy	June 2010
FAD	Public financial management: follow-up on priority reforms	June 2010
LEG/MCM	Implementation of financial sector components of the SBA program	June 2010
FAD	Tax administration: design of the anti-evasion plan	July 2010
MCM	Implementation of financial sector components of the SBA program	September 2010
FAD	Tax administration: implementation of the anti-evasion plan	September 2010
FAD	Public financial management: implementation status of priority reforms	September 2010
STA	Monitoring of fiscal data for the program	September 2010
FAD	Tax administration: anti-evasion and structural reforms	October 2010
FAD	Health system analysis and proposals	October 2010
STA	Government finance statistics	December 2010
FAD	Tax administration: anti-evasion and structural reforms	February 2011
FAD	Role of accounting officers	February 2011
STA/FAD	Government finance statistics/fiscal reporting	March 2011
FAD	Tax administration: strategic planning	March 2011
FAD	Public financial management: follow-up on implementation of priority reforms	April 2011
FAD/LEG	Tax administration: anti-evasion and structural reforms	April 2011
LEG	Legal framework for privatization	April 2011
MCM/LEG	Review of the Legal and Operational Framework for Bank Resolution	June 2011
FAD	Tax administration: strategic planning and taxpayer audit	June 2011
FAD	Tax administration: tax collection and tax administration reform	July 2011
LEG	AML and anti-tax evasion: strengthening BoG's supervisory process	September 2011
LEG	AML and anti-tax evasion: review of cross-border financial flows	September 2011
FAD	Safeguarding revenue and encouraging growth	September 2011
FAD	Modernizing the General Accounting office	September 2011
FAD	Preparing the 2012 budgets	September 2011
STA	Fiscal Reporting	December 2011
FAD	Expenditure Policy: OECD Review of Social Programs	January 2012
FAD	Tax administration	January 2012
LEG	Reform of central bank governance for banking supervision and resolution	January 2012

(*Continued*)

(Continued)

Department	Purpose	Date
LEG	AML and anti-tax evasion: strengthening BoG's supervisory process	January 2012
FAD	Public financial management: Accounting Officers and 2013 Budget Preparation	February 2012
FAD	Tax Administration: Collection and analyzing taxpayer compliance data	February 2012
STA	Fiscal Reporting	February 2012
FAD	Expenditure Policy: Spending Review Mission	March 2012
FAD	Tax administration: Follow up	March 2012
FAD	Revenue Administration: Social contribution complaisance	March 2012

Source: IMF Country Reports.

References

Auerbach, Alan, and Yuriy Gorodnichenko, 2010, "Measuring the Output Responses to Fiscal Policy," VoxEU, September 3.

Baldwin, Richard, and Francesco Giavazzi, eds., 2015, *The Eurozone Crisis: A Consensus View of the Causes and a Few Possible Solutions*, VoxEU.org Book (London: Centre for Economic Policy Research).

Baldwin, Richard, and others, 2015, "Rebooting the Eurozone: Step I—Agreeing a Crisis Narrative," CEPR Policy Insight No. 85, November (London: Centre for Economic Policy Research).

Bastasin, Carlo, 2012, *Saving Europe: Anatomy of a Dream* (Washington: Brookings Institution Press).

Blanchard, Olivier, and Daniel Leigh, 2013, "Growth Forecast Errors and Fiscal Multipliers," *American Economic Review* 103 (3): 117–20.

Blanchard, Olivier, and Roberto Perotti, 2002, "And Empirical Characterization of the Dynamic Effects of Changes in Government Spending and Taxes on Output", *Quarterly Journal of Economics* 117(4): 1329–68.

Blundell-Wignall, Adrian, and Patrick Slovik, 2010, "The EU Stress Test and Sovereign Debt Exposures," OECD Working Papers on Finance, Insurance, and Private Pensions, No. 4, August (Paris: OECD Financial Affairs Division).

Blustein, Paul, 2015, "Laid Low: The IMF, the Euro Zone, and the First Rescue of Greece," CIGI Papers No. 61, April (Waterloo, Canada: Centre for International Governance Innovation).

Boeckx, Jef, 2012, "What Is the Role Played by the Eurosystem During the Financial Crisis?" *Economic Review*, National Bank of Belgium, issue ii, pages 7–28, September.

Corsetti, Giancarlo, 2010, "Fiscal Consolidation as a Strategy to Exit the Global Crisis", VoxEU, 7 July.

De Grauwe, Paul, 2012, "The Governance of a Fragile Eurozone," Economic Policy, CEPS Working Documents (Brussels: Centre for European Policy Studies).

De Haas, Ralph, and others, 2012, "Foreign Banks and Vienna Initiative: Turning Sinners into Saints?" IMF Working Paper No. 12/117 (Washington: International Monetary Fund).

De las Casas, Miguel, 2017, "The IMF Executive Board and the Euro Area Crisis: Accountability, Legitimacy, and Governance" (Chapter 1 in this volume).

Dhar, Sanjay, and Shinji Takagi, 2017, "IMF Surveillance of the Euro Area: From Conception Through Crisis" (Chapter 4 in this volume).

Donnan, Shawn, 2015, "IMF's Lagarde Shows Tough Love to Greece over Bailout," *Financial Times*, February 26.

Economist, The, 2010a, "Rebuilding Greece's Finances," February 4, 2010.
———, 2010b, "A Very European Crisis," February 4, 2010.
———, 2010c, "The Cracks Spread and Widen," April 29, 2010.
El-Erian, Mohamed A., 2015, "IMF Gets Smart about a Third Greek Bailout," *Bloomberg*, July 31.
European Council, 2010, "Statement by the Heads of State or Government of the Euro Area," March 25.
European Court of Auditors (ECA), 2015a, "Financial Assistance Provided to Countries in Difficulties," Special Report No. 18.
———, 2015b, "More Attention to Results Needed to Improve the Delivery of Technical Assistance to Greece," Special Report No. 19.
Evans-Pritchard, Ambrose, 2015, "IMF Has Betrayed Its Mission in Greece, Captive to EMU Creditors," *The Telegraph*, June 5.
Fatas, Antonio, and Ilian Mihov, 2001, "The Effects of Fiscal Policy on Consumption and Employment: Theory and Evidence," Discussion Paper 2769 (London: Centre for Economic Policy Research).
Fernández-Villaverde, Jesús, Luis Garicano and Tano Santos, 2013, "Political Credit Cycles: The Case of the Eurozone," *Journal of Economic Perspectives*, 27(3): 145–66.
Gelpern, Anna, 2015, "Thoughts on the Greek Referendum and the Democracy Mismatch in Public Debt Crises," Credit Slips, October 22. Available at: http://www.creditslips.org/creditslips/2015/07/thoughts-on-the-greek-referendum-and-the-democracy-mismatch-in-public-debt-crises.html.
Giavazzi, F., and Spaventa, L., 2010, "Why the Current Account May Matter in a Monetary Union: Lessons from the Financial Crisis in the Euro Area," CEPR Discussion Paper No. 8008 (London: Centre for Economic Policy Research).
González-Hermosillo, Brenda, and Christian Johnson, 2014, "Transmission of Financial Stress in Europe: The Pivotal Role of Italy and Spain, But Not Greece," IMF Working Paper No. 14/76 (Washington: International Monetary Fund).
Gros, Daniel, and Cinzia Alcidi, 2010, "Is Greece Different? Adjustment Difficulties in Southern Europe," Vox, April 22.
Gulati, Mitu, and Lee C. Buchheit, 2010, "How to Restructure Greek Debt," Duke Law Working Paper 47, May 7 (Duke University).
Hagan, Sean, 2014, "Acting Collectively: A Better Way to Restructure Government Debt", IMFdirect, November 24).
Hansen, Lars Peter, and Thomas J. Sargent, 2007, *Robustness* (Princeton, New Jersey: Princeton University Press).
Holinski, Nils, Clemens Kool, and Joan Muysken, 2012, "Persistent Macroeconomic Imbalances in the Euro Area: Causes and Consequences," *Federal Reserve Bank of St. Louis Review*, January/February.
Ilzetski, Ethan, Enrique Mendoza and Carlos Végh, 2013, "How Big (Small?) Are Fiscal Multipliers," University of Maryland.
Independent Evaluation Office of the International Monetary Fund (IEO), 2002, *Evaluation of Prolonged Use of IMF Resources,* (Washington: International Monetary Fund).
———, 2003, *The IMF and Recent Capital Account Crises* (Washington: International Monetary Fund).
———, 2011, *IMF Performance in the Run-Up to the Financial and Economic Crisis: IMF Surveillance in 2004-07* (Washington: International Monetary Fund).
———, 2016, *Behind the Scenes with Data at the IMF: An IEO* Evaluation (Washington: International Monetary Fund).
International Monetary and Financial Committee (IMFC), 2011, "Communiqué of the Twenty-Third Meeting of the International Monetary and Financial Committee of the Board of Governors of the International Monetary Fund," April 16 (Washington: International Monetary Fund).

International Monetary Fund (IMF), 1999, "Greece: Selected Issues" IMF Country Report No. 99/138 (Washington).
———, 2001, "Greece: 2000 Article IV Consultation—Staff Report; Public Information Notice on the Executive Board Discussion; and Statement by the Authorities of Greece," IMF Country Report No. 01/52 (Washington).
———, 2002a, "Greece: 2001 Article IV Consultation—Staff Report; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director of Greece," IMF Country Report No. 02/56 (Washington).
———, 2002b, "Guidelines on Conditionality," September 25 (Washington).
———, 2003a, "The Acting Chair's Summing Up—Review of Access Policy Under the Credit Tranches and the Extended Fund Facility, and Access Policy in Capital Account Crises—Modifications to the Supplemental Reserve Facility and Follow-Up Issues Related to Exceptional Access Policy, Executive Board Meeting 03/16," February 26 (Washington).
———, 2003b, "IMF Concludes Discussion on Access Policy in the Context of Capital Account Crises; and Review of Access Policies in the Credit Tranches and the Extended Fund Facility," Public Information Notice No.03/37, March 21 (Washington).
———, 2003c, "Greece: 2003 Article IV Consultation—Staff Report; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director of Greece," IMF Country Report No. 03/156 (Washington).
———, 2003d, "Greece: Report on the Observance of Standards and Codes—Data Module; Response by the Authorities; and Detailed Assessments Using the Data Quality Assessment Framework," IMF Country Report No. 03/318 (Washington).
———, 2005a, "Greece: 2004 Article IV Consultation—Staff Report; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director of Greece," IMF Country Report No. 05/43 (Washington).
———, 2005b, "Greece: Report on the Observance of Standards and Codes—Data Module—Update," IMF Country Report No. 05/45 (Washington).
———, 2006a, "Greece: 2005 Article IV Consultation Consultation—Staff Report; Staff Supplement; Public Information Notice; and Statement by the Executive Director for Greece," IMF Country Report No. 06/04 (Washington).
———, 2006b, "Greece: Financial System Stability Assessment, including Reports on the Observance of Standards and Codes on the following topics, Banking Supervision, Insurance Supervison, Securities Regulation, and Anti-Money Laundering and Combating the Financing of Terrorism," IMF Country Report No. 06/06 (Washington).
———, 2006c, "Greece: Report on Observance of Standards and Codes—Fiscal Transparency Module," IMF Country Report No. 06/49 (Washington).
———, 2007, "Greece: 2006 Article IV Consultation Consultation—Staff Report; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for Greece," IMF Country Report No. 07/26 (Washington).
———, 2008, "Greece: 2007 Article IV Consultation—Staff Report; Staff Supplement; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for Greece," IMF Country Report No. 08/148 (Washington).
———, 2009a, "Greece: 2009 Article IV Consultation —Staff Report; Staff Supplement; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for Greece," IMF Country Report No. 09/244 (Washington).
———, 2009b, "Greece: Selected Issues" IMF Country Report No. 09/245 (Washington).
———, 2010a, "Ex Post Evaluations of Exceptional Access Arrangements—Revised Guidance Note," March 1 (Washington).

———, 2010b, "Statement by IMF Managing Director Dominique Strauss-Kahn on Greece," Press Release 10/143, April 11 (Washington).
———, 2010c, "IMF Reaches Staff-Level Agreement with Greece on €30 Billion Stand-By Arrangement," Press Release 10/176, May 2 (Washington).
———, 2010d, "Greece: Staff Report on Request for Stand-By Arrangement," IMF Country Report No. 10/110 (Washington).
———, 2010e, "Greece: Stand-By Arrangement—Review Under the Emergency Financing Mechanism," IMF Country Report No. 10/217 (Washington).
———, 2010f, "Greece: First Review Under the Stand-By Arrangement," IMF Country Report No. 10/286 (Washington).
———, 2010g, "Greece: Second Review Under the Stand-By Arrangementt—Staff Report; Press Release on the Executive Board Discussion; and Statement by the Executive Director for Greece," IMF Country Report No. 10/372 (Washington).
———, 2011a, *Fiscal Monitor: Addressing Fiscal Challenges to Reduce Economic Risks*, September (Washington).
———, 2011b, "IMF Executive Board Discusses Modernizing Fiscal Policy Framework and Public Debt Sustainability Analysis," Public Information Notice No. 11/118, September 12 (Washington).
———, 2011c, "Greece: Third Review Under the Stand-By Arrangement—Staff Report; Informational Annex; Press Release on the Executive Board Discussion; Statement by the Staff Representative on Greece; and Statement by the Executive Director for Greece," IMF Country Report No. 11/68 (Washington).
———, 2011d, "Greece: Fourth Review Under the Stand-By Arrangement and Request for Modification and Waiver of Applicability of Performance Criteria," IMF Country Report No. 11/175 (Washington).
———, 2011e, "Greece: Fifth Review Under the Stand-By Arrangement, Rephasing and Request for Waivers of Nonobservance of Performance Criteria; Press Release on the Executive Board Discussion; and Statement by the Executive Director for Greece," IMF Country Report No. 11/351 (Washington).
———, 2012a, "Greece: Request for Extended Arrangement Under the Extended Fund Facility—Staff Report; Staff Supplement; Press Release on the Executive Board Discussion; and Statement by the Executive Director for Greece," IMF Country Report No. 12/57 (Washington).
———, 2012b, "The Acting Chair's Summing Up—Review of Conditionality, Executive Board Meeting 12/84," September 5 (Washington).
———, 2012c, "IMF Executive Board Concludes Discussion of 2011 Review of Conditionality," Public Information Notice No. 12/109, September 17 (Washington).
———, 2012d, *Fiscal Monitor—Taking Stock: A Progress Report on Fiscal Adjustment*, October (Washington).
———, 2013a, "Stocktaking the Fund's Engagement with Regional Financing Arrangements," April (Washington).
———, 2013b, "Sovereign Debt Restructuring—Recent Developments and Implications for the Fund's Legal and Policy Framework," April (Washington).
———, 2013c, "Greece: Ex Post Evaluation of Exceptional Access under the 2010 Stand-By Arrangement," IMF Country Report No. 13/156 (Washington).
———, 2013d, "Staff Guidance Note for Public Debt Sustainability in Market Access Countries," May (Washington).
———, 2014a, "Revised Operational Guidance to IMF Staff on the 2002 Conditionality Guidelines," July (Washington).
———, 2014b, "IMF Executive Board Discusses the Fund's Lending Framework and Sovereign Debt," Press Release No. 14/294, June 20 (Washington).
———, 2014c, "The Chairman's Summing Up: IMF Response to the Financial and Economic Crisis—An IEO Assessment," October 28 (Washington).

———, 2015a, "Ireland: Ex Post Evaluation of Exceptional Access under the 2010 Extended Arrangement," IMF Country Report No. 15/20 (Washington).
———, 2015b, "The Acting Chair's Summing Up: Independent Evaluation Office—Self-Evaluation at the IMF, An IEO Assessment; Executive Board Meeting 15/89," September (Washington).
———, 2015c, "Crisis Program Review," November (Washington).
———, 2015d, "IMF Executive Board Concludes Review of Fund-Supported Programs During Global Financial Crisis," Press Release No.15/563, December 16 (Washington).
———, 2016a, "IMF Executive Board Approves Exceptional Access Lending Framework Reforms," Press Release No. 16/31, January 29 (Washington).
———, 2016b, "IMF Reforms Policy for Exceptional Access Lending," *IMF Survey Magazine*, January 29 (Washington). Available at: http://www.imf.org/external/pubs/ft/survey/so/2016/POL012916A.htm.
Ilzetzki, Ethan, Enrique G. Mendoza, and Carlos A. Vegh, 2013, "How Big (Small?) Are Fiscal Multipliers? Journal of Monetary Economics 60 (2): 239–54.
Irwin, Neil, 2013, *The Alchemists: Three Central Bankers and a World on Fire* (New York: Penguin Press).
Ito, Takatoshi, 2015, "Someone Needed to Speak Truth to Europe," *Financial Times*, July 7.
Janssen, Ronald, 2010, "Greece and the IMF: Who Exactly is Being Saved?" July (Washingto: Center for Economic and Policy Research).
Karas, Othmar, and Liem Hoang Ngoc, rapporteurs, 2014, "Report on the Enquiry on the Role and Operations of the Troika (ECB, Commission, and IMF) with Regard to the Euro Area Programme Countries," European Parliament, Committee on Economic and Monetary Affairs, February.
Kincaid, G. Russell, 2017, "The IMF's Role in the Euro Area Crisis: What Are the Lessons from the IMF's Participation in the Troika? (Chapter 5 in this volume).
Kirchegaard, Jakob Funk, 2010, "The Biggest Losers: Who Gets Hurt from a Greek Default or Restructuring," Realtime Economic Issues Watch, April 28, Washington, DC: Peterson Institute for International Economics. Available at: https://piie.com/blogs/realtime-economic-issues-watch/biggest-losers-who-gets-hurt-greek-default-or-restructuring.
Kopits, George, 2017, "The IMF and the Euro Area Crisis: The Fiscal Dimension" (Chapter 6 in this volume).
Lachman, Desmond, 2011, "Fund Must Turn Away from DSK's Economic Mistakes," *Financial Times*, May 18.
Lee, Jong-Wha, 2015, "Asia's View on the Greek Crisis," Project Syndicate, July 16. Available at: https://www.project-syndicate.org/commentary/greek-reform-imf-asian-financial-crisis-by-lee-jong-wha-2015-07?barrier=true.
Meghir, Costas, Chris Pissarides, Dimitri Vayanos, and Nikos Vettas, forthcoming, "The Greek Economy Before and During the Crisis—and Policy Options Going Forward," in *Beyond Austerity: Reforming the Greek Economy*, ed. by Costas Meghir, Chris Pissarides, Dimitri Vayanos, and Nikos Vettas (Cambridge, Massachusettts: MIT Press).
Merler, Silvia, and Jean Pisani-Ferry, 2012a, "Sudden Stops in the Euro Area," Policy Contribution, March (Brussels: Bruegel). Available at: http://bruegel.org/2012/03/sudden-stops-in-the-euro-area-2/
———, 2012b, "Who's Afraid of Sovereign Bonds?" Policy Contribution 2012|02, February (Brussels: Bruegel).
Mody, A., 2015, "Professor Blanchard Writes a Greek Tragedy" (Brussels: Bruegel).
Nelson, R., Belkin, P., and D. Mix, 2010, "Greece's Debt Crisis: Overview, Policy, Responses, and Implications," U.S. Congressional Research Service. Available at: https://www.fas.org/sgp/crs/row/R41167.pdf.

Olivares-Caminal, Rodrigo, 2011, "The EU Architecture to Avert a Sovereign Debt Crisis," *OECD Journal: Financial Market Trends*, Vol. 2011(2): 167–97.
Palaiologos, Yannis, 2014, *The 13th Labour of Hercules: Inside the Greek Crisis* (London: Portobello Books).
———, 2015, "Greece's Long and Painful Odyssey," *Wall Street Journal Europe*, April 23.
Panagiotarea, Eleni, 2013a, *Greece in the Euro: Economic Delinquency or System Failure?* ECPR Monograph (Colchester, United Kingdom: European Consortium for Political Research).
———, 2013b, "IMF in the Eurozone: A Case of Too Close to Fail," Research Paper No. 6/2013 (Athens: Hellenic Foundation for European and Foreign Policy).
Pelagidis, Theodore, and Michael Mitsopoulos, 2014, *Greece: From Exit to Recovery?* (Washington: Brookings Institution Press).
Pisani-Ferry, Jean, 2011, *The Euro Crisis and Its Aftermath* (Oxford, United Kingdom: Oxford University Press).
———, 2013, "The Known Unknowns and Unknown Unknowns of European Monetary Union," *Journal of International Money and Finance*. 34: 6–14.
Pisani-Ferry, Jean, André Sapir, and Guntram B. Wolff, 2011, "TSR External Study—An Evaluation of IMF Surveillance of the Euro Area," background study for the Triennial Surveillance Review, July 19 (Washington: International Monetary Fund).
———, 2013, "EU-IMF Assistance to Euro-Area Countries: An Early Assessment," Blueprint 19 (Brussels: Bruegel).
Sandri, Damiano, 2015, "Dealing with Systemic Sovereign Debt Crises: Fiscal Consolidation, Bail-ins or Official Transfers?" IMF Working Paper No. 15/223 (Washington: International Monetary Fund).
Sapir, André, Guntram B. Wolff, Carlos de Sousa, and Alessio Terzi, 2014, "Committee Study on the Troika and Financial Assistance in the Euro Area: Successes and Failures," Study at the request of the Economic and Monetary Affairs Committee, European Parliament, February.
Seitz, Franz, and Thomas Jost, 2012, "The Role of the IMF in the European Debt Crisis," HAW im Dialog – Weidener Discussionspapiere No. 32, January (Amberg-Weiden: University of Applied Sciences).
Shin, H. S., 2011, "Global Banking Glut and Loan Risk Premium," 2011 Mundell-Fleming Lecture (Washington: International Monetary Fund). Available at: https://www.imf.org/external/np/res/seminars/2011/arc/pdf/hss.pdf.
Spiegel, Peter, 2014, "How the Euro Was Saved," *Financial Times*, May 11, May 14, May 15.
———, and Kerin Hope, 2013, "EU's Olli Rehn Lashes Out at IMF Criticism of Greek Bailout," *Financial Times*, June 7.
Steinkamp, Sven, and Frank Westermann, 2014, "The Role of Creditor Seniority in Europe's Sovereign Debt Crisis," *Economic Policy*, July: 495–552.
Sterne, Gabriel, 2014, "The IMF Crisis and How to Solve It," Research Briefing, *Oxford Economic*s, July. Available at: http://www.macropolis.gr/?i=portal.en.the-agora.1428.
Summers, Lawrence, 2012, "Growth Not Austerity Is Best Remedy for Europe," *Financial Times*, April 29.
Takagi, Shinji, Carlos de Resende, Jerome Prieur, Franz Loyola, and Tam Nguyen, 2014, "A Review of Crisis Management Programs Supported by IMF Stand-By Arrangements, 2008–11," IEO Background Paper No. BP/14/07 (Washington: International Monetary Fund).
Tan, Ling Hui, 2017, "IMF Engagement with the Euro Area Versus Other Currency Unions" (Chapter 3 in this volume).
Tsoukalis, Loukas, 2011, "The Shattering of Illusions—And What Next?" *Journal of Common Market Studies*, 49: 19–44.

Véron, Nicolas, 2016, "The IMF's Role in the Euro Area Crisis: Financial Sector Aspects," IEO Background Paper No. BP/16-02/10 (Washington: International Monetary Fund).

Walker, Marcus, and Charles Forelle, 2011, "In Euro's Hour of Need, Aide Gets 'Madame Non' to Say Yes," *Wall Street Journal*, April 14.

———, and Brian Blackstone, 2010a, "On the Secret Committee to Save the Euro, a Dangerous Divide," *Wall Street Journal*, September 24.

———, 2010b, "Currency Union Teetering, 'Mr. Euro' Is Forced to Act," *Wall Street Journal*, September 27.

Warner, Jeremy, 2011, "Lessons of Argentina Crisis Ignored in Handling of Greece," *Telegraph*, July 4.

Watson, Max, 2008, "IMF Surveillance in Europe: Progress in Refocusing," external consultant report prepared for the IMF 2008 Triennial Surveillance Review, September (Washington: International Monetary Fund).

Wolf, Martin, 2013, "Austerity in the Eurozone and the UK: Kill or Cure?" *Financial Times*, May 23.

Wroughton, Lesley, Howard Schneider, and Dina Kyriakidou, 2015, "How the IMF's Misadventure in Greece Is Changing the Fund," *Reuters*, August 28.

Wyplosz, Charles, 2013, "The Eurozone Crisis and the Competitiveness Legend," *Asian Economic Papers* (MIT Press) 12 (3): 63–81.

———, 2014, "The Eurozone Crisis: A Near-Perfect Case of Mismanagement," *Economia Marche/Journal of Applied Economics*, Universita' Politecnica delle Marche, 33 (1), November: 1–13.

Xafa, Miranda, 2014, "Sovereign Debt Crisis Management: Lessons from the 2012 Greek Debt Restructuring," CIGI Papers No. 22, June (Waterloo, Ontario: Centre for International Governance Innovation).

Zettelmeyer, Jeromin, Christoph Trebesch, and Mitu Gulati, 2013, "The Greek Debt Restructuring: An Autopsy," *Economic Policy*, July: 513–63.