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IMF AND EUROPEAN INSTITUTIONS DURING THE SOVEREIGN DEBT CRISIS

Ziyu Yan
University of Pennsylvania, ziyuyan@wharton.upenn.edu

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IMF AND EUROPEAN INSTITUTIONS DURING THE SOVEREIGN DEBT CRISIS

Abstract

While the European Sovereign Debt crisis presented unprecedented challenges to the European institutions in addressing the vulnerabilities of its financial sector, it gave rise to the effective cooperation between the European Commissions, the European Central Bank (ECB), and the International Monetary Fund (IMF), collectively known as the Troika. This paper reviews the interactions between the IMF and the euro area official lenders in three programme countries: Greece, Portugal, and Ireland. A close examination of the lending terms changes revealed an evolving understanding of the crisis by the European institutions. This paper analyzes the impact that the IMF had on the lending term changes to enrich a better understanding of the evolution of the European crisis management framework.

Keywords

IMF, ESM, European Sovereign Debt Crisis, Lending Term, Crisis Management

Disciplines

Macroeconomics | Political Economy

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IMF AND EUROPEAN INSTITUTIONS DURING THE SOVEREIGN DEBT CRISIS

By

Ziyu Yan

An Undergraduate Thesis submitted in partial fulfillment of the requirements for the

JOSEPH WHARTON SCHOLARS

Faculty Advisor:

David Skeel

S. Samuel Arsht Professor of Corporate Law, University of Pennsylvania Law School

THE WHARTON SCHOOL, UNIVERSITY OF PENNSYLVANIA

MAY 2020

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I. Abstract

While the European Sovereign Debt crisis presented unprecedented challenges to the European institutions in addressing the vulnerabilities of its financial sector, it gave rise to the effective cooperation between the European Commissions, the European Central Bank (ECB), and the International Monetary Fund (IMF), collectively known as the Troika. This paper reviews the interactions between the IMF and the euro area official lenders in three programme countries: Greece, Portugal, and Ireland. A close examination of the lending terms changes revealed an evolving understanding of the crisis by the European institutions. This paper analyzes the impact that the IMF had on the lending term changes to enrich a better understanding of the evolution of the European crisis management framework.

II. Introduction

The European Stability Mechanism (ESM) is a permanent bailout program established in 2012 by the European Union to succeed previous temporary financial programs such as European Financial Stability Facility (EFSF) in response to the European debt crisis. The ESM has motivated a lot of scholarly debate regarding the need for its existence, optimal size and lending capacity, economic governance setup, and sustainability in the long-term. Most of the existing literature focuses on the framework and future viability of the ESM as a crisis management vehicle in the European monetary union. Less scholarly attention has been given to the previous temporary financial programs and the drivers behind their evolution.

This paper examines the institutional interactions between the euro area official lenders and the International Monetary Union (IMF). By comparing the similarities and divergence in the lending terms between the IMF rescue packages and EFSF/ESM programmes, the paper

analyzes the drivers, conditions, and mechanisms that ultimately led to the development of a eurozone specific permanent crisis management framework, and equally importantly, the role that the IMF played in the process. The paper will begin with a background overview of eurozone debt crisis in order to illustrate the evolution of the eurozone's crisis management capability. A section on methodology will be followed by literature review that focuses on two parts: 1) scholarly discussions on the roles and interactions between the IMF and official eurozone lenders, 2) official reports on lending terms for three programme countries: Ireland, Greece, and Portugal. This paper will then draw implications and conclusions about the changes of lending terms of the IMF and eurozone rescue packages.

III. Background of European Sovereign Debt Crisis

Although the 2008 Global Financial Crisis started in the U.S. as a result of credit burst in the subprime mortgage markets, it impacted many parts of the world in varying degrees. The euro area suffered non-negligible repercussion for many reasons due to it nature as a monetary union with coordinated currency and policies. The euro area experienced a period of the collapse of financial institutions and high government debt, formally known as the European Sovereign Debt Crisis. Vast research has been conducted on the causes of the eurozone crisis. While scholars differ on the chronological order of importance of the causes, most agree that the crisis was caused and exaggerated by 1) years of unsustainable government macro-economic policies that had caused the build-up of deficits, fiscal imbalances, and debt burdens; 2) the lack of effective institutional means to control and manage crisis. As the 2008 financial crisis first hit peripheral countries such as Ireland and Spain with large housing market booms, a sovereign debt crisis stroke through more countries with rising fiscal problems (Rabobank, 2015). The

crisis began when the new Greek Prime Minister George Papandreou announced the country's gross violation of the permissible deficit to GDP ratio (Sinha, 2018). Heavy fiscal spending over years and failure to undertake reforms caused the dramatic downgrade of Greece's credit rating by Fitch, Standard Poor's and Moody's in 2009 (ESM, 2019). The inability of the Greek government to finance its debt on the market indicated the loss of investor confidence and inevitably triggered concerns of other peripheral member states in 2010 (Rabobank, 2015). The crisis quickly spread to Portugal, Ireland, Spain, and Cyprus, who were all unable to repay their government debt and needed assistance from third-party financial institutions in varying degrees.

The European response to the euro area crisis at first followed the IMF approach, which uses lending facilities to preserve short-term financial stability, but then evolved into developing its own temporary and permanent crisis management frameworks. The initial European response to the crisis was controversial as scholars and policymakers debated the scope, model, and goals of official lending (Corsetti, Erce and Uy, 2017). In examining the learning development in the area of practical lending and programme implementation, Schwarz highlights that the initial ad hoc policy response of the European institutions to the debt crisis was considered highly lacking both in view of the crisis dynamics and the political economy of eurozone lending (Schwarz, 2015). The European Central Bank played an undisputable role in saving the banking sector at the beginning of the crisis, particularly mitigating the impact of reverse cross-border private capital flows through its long-term refinancing operations (Rabobank, 2015). However, other sources of finance and rescue packages were desperately needed to specifically target the debt crisis and balance-in-payment crisis. With endless nights of debates and discussions, Euro area leaders sought assistance form the International Monetary Fund (IMF).

Scholarly sources disagree on how dependent Europe was on the IMF assistance: while the Eurozone official sources such as the ESM Evaluation Report and *The Inside Story of the ESM* both argue that Europe was never entirely dependent upon on it, Bruegel Blueprint and other sources that represent the IMF evaluation treat the participation of the IMF as actively needed and sought after. As it later became an integral manager of the crisis, the IMF participated in five rescue packages jointly with the European Commission (EC) and the European Central Bank (ECB), forming the so-called "Troika" in 2010 (Schwarz, 2015). Ultimately, the euro area recognized the contagion threatened not only to peripheral member states, but also to the common currency, so it decided to establish its own firewall alongside the financial assistance provided by the IMF (ESM, 2019). Signing the European Financial Stability Facility (EFSF) in June 2010, the eurozone countries came together to establish a temporary, yet lean and cost-efficient bailout fund that signals to the public European commitment to the preservation of the common currency with a €440 bn guarantee structure (ESM Evaluation Report). The eurozone officials soon recognized the importance of creating a permanent entity that is more robust and credible than the EFSF (ESM Evaluation Report). The European Stability Mechanism (ESM) was thus created in 2010 and went into operation in 2012 to succeed its predecessor EFSF as a permanent bailout fund with key operations such as funding, lending, investment, risk, legal, policy, and other corporate functions (ESM Evaluation Report). Together, the EFSF and ESM have disbursed a total amount of €295 bn to five countries: Ireland, Spain, Portugal, Cyprus and Greece (ESM Website). The success of EFSF and ESM in facilitating the European economic recovery is undeniable, but one ought to examine the effect of the two eurozone programmes considering the IMF participation in the crisis.

IV. Scope, Methodology and Data

The focus of this paper is on the euro-area countries within the EU, as their situations represented a joint effort between the European institutions and the IMF. There are three roles of distributing assistance within the IMF, namely "programme negotiation and monitoring," "decision to assist," and "lending" (IMF website). Correspondingly, these three roles are assumed by many different parts of the European partners: the actual lending is conducted by EFSF/ESM, program negotiation is handled by EC and ECB and the ultimate decision to assist is made by the ESM Board of Governors (Pisani-Ferry, Sapir, Wolff, 2013). Due to the unprecedented, complicated nature of the joint financial assistance programmes between the eurozone official lenders and the IMF, this paper only focuses on the lending role of the two institutions as it provides a direct comparison of the IMF and ESM frameworks.

Three countries are selected: Greece, Portugal, and Ireland, which are the only euro countries that received bilateral assistance from the IMF and euro-area lenders. In the case of Greece, the IMF is not involved in the Third Economic Adjustment Programme (commonly known as the third bailout package), so the paper excludes this from the analysis.[1]

The data for analysis of the euro-area's role comes from a variety of resources produced by the ESM. In 2017, the ESM board appointed an independent evaluator to publish an EFSF/ESM Evaluation Report. This report is one of the primary sources of data for packages disbursed from the EFSF/ESM. Additional data for rescue programs from the EU sources are all provided on the ESM official website, which presents detailed descriptions of the financial

[1] European Council: "*In the case of the third programme for Greece, the decision of the Fund to provide further financial support to Greece will depend on its assessment of the policy reforms that are undertaken and the public debt sustainability of the country.*" https://www.consilium.europa.eu/en/policies/financial-assistance-eurozone-members/greece-programme/#

assistance given to each programme country. Following the 2017 ESM Evaluation Report, the ESM created a database that congregated a repository of data for the six types of financial assistance programmes that the EFSF and ESM funded between 2011 and 2018. For each programme country, the repository provides numerical and visual data on *lending information* and *programme overview*. *Lending information* consists of data related to loan disbursement, repayment, and interest and fees over time. Specifically, tracking changes in terms such as interest rates drop and maturity extension over time will be helpful to analyze in comparison with changes in IMF lending terms.

Since the end of 2009, the IMF was involved in the rescue process of the sovereign debt crisis by participating in the economic adjustment programs for Greece, Ireland, and Portugal. In total, the IMF contributed around one third to the emergency funds in a "Troika" model with the European Commission (EC) and the European Central Bank (ECB) (Seitz and Jost, 2012). A significant source of data on the IMF involvement in the sovereign debt crisis will be secondary, coming from scholarly research. Research has been conducted on why the IMF became involved in the eurozone crisis and how it coordinated the financial assistance with the eurozone lenders. For example, discussion paper from the IMF website "The Role of the IMF in the European Debt Crisis" by Franz Seitz and Thomas Jost provides a detailed overview of the rescue packages and the involvement of the IMF during the crisis. The main part of the article discusses the pros and cons of the participation of the IMF in elaborating and monitoring the economic adjustment programs for the countries in crisis. Seitz and Jost argue that by participating in the sovereign debt crisis, the IMF was able to continue carrying out its mission, as many observers doubted the necessity of the IMF due to its low ending before 2017 and 2018 (Sietz and Jost, 2012). Lastly, scholarly work on lending term changes have provided valuable data for the construction of

graphs and tables in this study. The authors of "Official Sector Lending Strategies During the Euro Area Crisis" collected data for interest rates built by modifying the time series provided through the ESM website to repayment profiles for EFSF and ESM loans as of the end of 2016 (Corsetti, Erce & Uy, 2017).

V. Research Motivation and Questions

In researching the European sovereign debt crisis, this study noticed that scholarly debates not only reveal the fundamental issues regarding fiscal coordination among Eurozone members, but also the complicated relationship between the IMF and European institutions during the long crisis resolution process. Pisani-Ferry, Sapir, and Wolff published an early assessment of the EU-IMF cooperation in specifically Greece, Ireland and Portugal. They concluded that the joint programmes have largely benefited all three countries from the perspective of the current account deficit shrinking, but economic and social problems remained severe by the time of the study (Pisani-Ferry, Sapir, Wolff, 2013). The authors argued qualitatively that the participation of the IMF was very necessary as the EU lenders lacked expertise, but the IMF took on a more operationally involved role than desired and sustainable (Pisani-Ferry, Sapir, Wolff, 2013). Pisani-Ferry et al represent a group of scholars who studied the IMF-EU cooperation as a potential template for future global and regional financial cooperation. Other scholars such as Nicolas Veron took the IMF side of argument, arguing that the IMF generated major positive impact and claiming that the euro-area was not prepared for handling a crisis of this nature and scale (Veron, 2016).

This paper therefore aims to contribute to existing literature on the interactions between the IMF and the euro area official lenders during the euro area crisis. In examining how the

lending terms have changed for each EFSF/ESM and IMF programme, this paper analyzes the impact that the IMF had on those changes and divergences to enrich a better understanding of the evolution of the European crisis management framework. The goal of the research is to examine the changes and whether the IMF played a role in the process.

V. Discussion

Greece Overview

Although the Hungarian program in October 2008 was the first joint EU/IMF program during the financial crisis, Greece set a milestone as it was the first eurozone member country to receive bilateral support from both institutions. In cooperating with the IMF in providing loans to Hungary, the EU was able to reflect on the strengths and weaknesses of its own organizational expertise and develop guidelines for joint programs (Seitz & Jost). The efficiency of the institutional framework in the EU was soon tested by the financial situations of its eurozone members. In October 2009, the Greek government adjusted its projection of the 2009 budget deficit from 3.7% to 12.5% of GDP, marking the beginning of the sovereign debt crisis (EEAG Report, 2011). When Greece initially informed the European officials about its financial condition and indicated need for help, there was no formalized blueprint for a recovery strategy, besides requesting the Greek government to carry out fiscal reforms. As the market confidence continued to worsen over the next few months, Greece officially requested help in early 2010 and the euro area partners agreed to involve the IMF. The Troika provided the first economic adjustment program to Greece to focus on its high public debt and failing domestic economy. Totaling 110 billion EUR, the Greek programme marks the first financial collaboration between the IMF and the euro area members for an eurozone member during the crisis (Table 1).

It is important to point out that Greece received financial assistance from the euro area institutions in the form of bilateral loans from many countries. At the time of the first Greek assistance program, the EU countries had not yet established a systematic assistance framework. Soon after the EU announced collaboration with the IMF for Greece, it established two funds with a total of 500 billion EUR, namely the European Financial Stabilization Mechanism (EFSM) and the European Financial Stability Facility (EFSF). While the EFSM was set up as a lending facility similar to that previously used for non-euro countries like Hungary and Latvia, the EFSF was established as a temporary, special purpose vehicle to make loans to euro area countries other than Greece. It was not until March 2011 that the EU decided to create a permanent rescue fund named the European Stability Mechanism (ESM) to replace the temporary EFSF starting in 2013. These changes in the form of institutional support reflected the attitude change of the euro area officials towards the nature of the crisis.

Ireland Overview

The origin of Ireland's problems was a quite different story than that of Greece. Triggered by the combined effects of the collapse of real estate prices and the disastrous bailout of its banking system, the Irish crisis officially began in 2010 with the country requesting support from both the EU and the IMF. The financial assistance programme for Ireland was a 3-year rescue package totaling 85 billion EUR, with 62.5 billion EUR coming from the newly established EFSM and EFSF funds and 22.5 billion EUR from the IMF. The IMF loan took the form of an Extended Fund Facility (EFF), in contrast to the Stand-By-Agreement (SBA) for the first Greek programme. The EFF is typically used to assist countries with payment imbalances due to structural problems (IMF website). In the case of Ireland, the program targets

“vulnerabilities in the banking system” and aims to restore market confidence and correct structural impediments to the business environment (Table 2)

Portugal Overview

Portugal was the third eurozone member to receive financial assistance from both the EU and the IMF. Unlike other programme countries, Portugal suffered from an illusion created by its low interest rate environment: easy access to credit contributes to high debt levels for all market and non-market players. In May 2011, Portugal began a 3-year economic adjustment program totaling 78 billion EUR, with 52 billion EUR coming from the EFSM and the EFSF, and the remaining 26 billion EUR from the IMF. The loan was approved to help Portugal finance the budget and recapitalize its banks, with conditions of the government committing to a number of domestic reforms similar to those placed upon Greece and Ireland. The EU official loans from the EFSM and the EFSF featured the same maturity as those granted to Ireland, 7.5 years (Table 2).

Although the financial assistance programs were quickly established, the financial outlook was consistently deteriorating. Responding to the overall negative pressure, the euro area authorities ultimately decided to set up the European Stability Mechanism (ESM) in June 2011 (ESM Evaluation Report). The ESM would address problems with a wide scope, ranging from direct intervention of the sovereign bond markets to the recapitalization of financial institutions. It is worth noting that the bank recapitalization tool allowed for official support programmes without the IMF’s involvement.

Greece Second Economic Adjustment Programme

As the economic situation in Greece continued to worsen after its first program in May 2010, the Greek government requested further financial assistance. In March 2012, the EU and

the IMF together approved the second bailout package for Greece, a deal that is worth 130 billion EUR and includes 53.5% debt write-down (Corsetti, Erce & Uy, 2017). The second programme for Greece led to debates about sovereign debt restructuring among scholars and policymakers, as the bailout package required an exchange of Greece significantly reducing its debt-to-GDP ratio, resulting in the completion of the world's largest restructuring deal. On the EU side, the newly established EFSF provided 144.7 billion EUR, and the IMF continued its support for Greece with an additional 28 billion EUR in the form of Extended Fund Facility. While the EU loan has a maturity of 10 years, the IMF's EFF was issued with a maturity of 8 years (Table 1).

Lending Terms Analysis

Along the evolution of the build-up of a euro area infrastructure for handling the Greek, Irish, and Portuguese crisis, the EFSF and EFSM played a critical role. The creation of these two institutions, in the midst of managing the euro area crisis and relationship with an external player, fundamentally changed the way programmes are funded: from direct bilateral loans to public guarantees on market financing. The creation of the ESM was thus the result of this change, which became the main source of support for Italy and Spain as the crisis spread to more countries. However, the IMF made a significant contribution to helping the euro area identify the dynamic of the crisis in its financial sector and addressing the challenges of each individual country. The changes in lending terms for the four programmes described above could shed light on the IMF's ground-breaking role in aiding the EU institutions and national authorities to manage the euro-area crisis. In what follows, the paper examines the changes in lending terms

with data drawn mostly from "Official Sector Lending Strategies During the Euro Area Crisis" (Corsetti, Erce and Uy 2017).

At the high level, the IMF programmes for Greece, Ireland, and Portugal featured a substantial lending facility change from SBA to EFF. The Stand-by-Agreement (SBA) is the most widely used tool by the IMF since its creation in 1965, providing lower rates than what crisis countries would typically be able to finance from the private markets (IMF website). Whereas SBA addresses general financing needs and macroeconomic imbalances, EFF is typically used to help countries address structural problems that cause difficulties with balance of payments (IMF website). The shift from SBA, which was only disbursed to Greece in the first economic adjustment programme, to EFF for the following three for Portugal, Ireland, and Greece (2nd time) indicates the IMF's deeper understanding of the nature of the euro-area crisis. When the crisis first began in late 2007, the IMF followed the language of the EU institutions in addressing the severity of the crisis, despite the growing concerns of market participants. In many of its public statements and discourses, the IMF staff commented that the area's financial system remained sound and only entered a period of turmoil (IMF, 2008 Article IV Consultation). However, as the crisis moved into late 2008, the IMF began to acknowledge the inherent vulnerabilities of the euro-area financial sector, including issues such as undercapitalization, funding, and asset equity (Veron, 2016). This shift in perspective was again evident in the public statements that the IMF made. For example, the Global Financial Stability report (GFSR) published in April 2009 highlighted the unaddressed challenges of the European banking sector by comparing it to that of the U.S. and Japan. In the subsequent months, the IMF pressed for more stress-tests of European banks and the release of those results, effectively pushing the European leaders into acknowledging the nature of the crisis (Veron, 2016). Thus,

the IMF's early leading role in identifying the unaddressed challenges of the euro-area financial sector was monumental in shaping the European official support, which underwent a series of renegotiations and changes in its lending terms.

There are a few contextual reasons that explain why it was difficult for eurozone officials to assess the right course of action. First, the lack of institutional set-up for a monetary crisis within EMU and the lack of historical experience to learn from both resulted in the reality that many policies and actions had to be invented in real time. Second, the strong interdependence between sovereigns and banks, without the flexibility to change exchange rates, enlarged the potential effects of spillover (Bruegel Blueprint). Because of this exchange rate phenomenon, a further complicating factor is the fact that conditionality had to be made about structural and fiscal policies (Corsetti, Erce and Uy 2017).

Bilateral loans from Greek Loan Facility lowered spread over reference rate three times from May 2010 to December 2012, reducing margins from 300 - 400 bps down to 50 bps (Table 4). Under GLF, the reference point was the floating 3-month Euro Interbank Offered Rate (EURIBOR). The initial 300 - 400 bps spread charge was 100 bps over that on the IMF's SBA loan for the first Greek adjustment programme. A more salient softening of lending policy was the extensions of the loan maturity from 5 to 30 years, and of the grace period from 3 to 10 years. Interest rates on the second Greek adjustment program that began in 2012 were also lowered once from 150 bps over the reference point to 0 bps. Under the loan vehicle EFSF, the reference rate was the cost of funding, which matched the funds raised from bill and bond sales to Greece's disbursement schedule. Loan maturity was also extended from 20 to 30 years. Why did the European public sector loans change their lending terms so drastically with such favorable conditions for Greece?

The relief was due to primarily the Troika's belief that the Greek debt was unsustainable. The principles of the IMF lending apply to countries whose financial distress were a result of illiquidity rather than insolvency. The rationales behind such lending framework are presented and justified by both the official lenders and scholars over time. For example, one reason cited was the need to protect taxpayer resources (Schumacher 2015). As Greece received both loans from the European official sector and the IMF, there existed a need to constantly check and test whether such lending principles could still be upheld by the IMF. The softening of the lending terms for Greece under both GFL and EFSF indicated the nature of these programs as a "quick fix" rather than real, sustainable solutions to address debt sustainability. These two facilities were successful in circumventing the "no bailout clause," but pointed to the need for a longer-term commitment (Schumacher 2015). The IMF's lending framework on debt sustainability motivated the changes in lending terms for Greece to service its debt burden, as the debt sustainability level depends highly on the maturity and spread of official lending (Corsetti, Erce and Uy 2017). The nature of GLF as bilateral loans also explains the motivation of an extension of loan maturity to bring down Greece's projected financing needs at unfavorable market terms, preventing aggravated spillovers to other member countries. According to the IMF country report on Greece published in 2013, Greece's debt appeared to be considerably more manageable after adjusting for the maturity extensions on loans (IMF, 2013). The flexibility of the lending vehicles and structures to lower financing costs for Greece in fact serves the purpose of reducing risks of default and spillover. However, reducing interest rates for Greece in three steps also showcases an overall initial underestimation and misdiagnosis of the severity of the crisis.

For Portugal and Ireland, changes in lending terms were almost paralleled. For Ireland, the three-year joint programme of EUR 85 billion granted in December 2010 had the first change

in lending terms in July 2011 (Table 4). The margins on the loans from the EFSF/EFSM were lowered from 250 bps to 0 bps and the average maturity was extended to 15 years. This change coincided with the IMF Staff Report published in July 2011, which emphasized the intertwining issues of banks and sovereigns (IMF, 2011). As previously discussed, the IMF took some time to adjust its assessment of the euro-area crisis, from making relatively positive statements of the financial sector's health to pressing for stress testing of European banks. This shift culminated in the identification of the bank-sovereign vicious circle (Veron, 2016). Not only did the IMF lead the international conversation around this relationship, it also shaped the interpretation of the European institutions about the nature of the crisis. The bank-sovereign link is a unique euro-area feature characterized by an explicit commitment by EU leaders to provide national funding and capitals to respective banks, thereby establishing direct and indirect financial linkages within the economy (Council of the European Union, 2008). In the context of the area's single currency and single market, this bank-sovereign link can become a vicious circle between the credit conditions of domestic banks and the sovereign credit of their home countries. At the time, the EU had not acquired this understanding of the bank-sovereign relationship. However, the influence of the IMF finally appeared less than a year later in 2012, when the Euro Area Summit included a discussion on the bank-sovereign vicious cycle (Euro Area Summit Statement, 2012). According to Veron, an interview conducted with ECB officials confirmed that the IMF preceded and influenced the EU in identifying this relationship (Veron, 2016).

The second change took place in May 2013, where the EU members agreed for another extension of weighted average maturity limit from 15 years to 22 years. Similar to Ireland, Portugal also received two significant changes. When the programme first began in May 2011, the loan disbursed by the EFSF/EFSM demanded a margin of 210 bps, with an average maturity

of 7.5 years. The first changes in the terms were made to be aligned with those of Ireland: margins reduced to 0 bps and loan maturity was extended to 15 years. In May 2013, Portugal was granted another maturity extension to 22 years. As shown in Figure 1.1, the extended maturities of EFSF/EFSM had a positive effective on the maturity structure of debt in Portugal and Ireland smoothing repayment profiles and thereby reducing financing risks (ESM Evaluation Report). In comparison, the debt repayment profiles graphed by Corsetti et al. in Figure 1.2 show that debt repayment to euro sector official loans are more backloaded, second in line to the IMF loans.

Further motivations of lending term changes for Ireland and Portugal differed from those for Greece. The IMF, however, did not play a significant role in these later lending term changes for Ireland and Portugal, as it transitioned its resources into analytical work and policy advocacy for a European banking union (Veron, 2016). While debt sustainability was still on the radar of analysis for the European institutions, helping crisis countries to access market normally seemed to have risen to the top of priority. By smoothening repayments and shifting them into the future, the lending terms of government loans could potentially affect market expectations and confidence. Corsetti et al. analyzed the yield curve of the secondary sovereign bond market with an event analysis around the times when lending terms changed (Corsetti, Erce & Uy, 2017). They found that bid-ask spreads narrowed for all maturities after the announcements of lending term changes for Ireland and narrowed for the 10-year maturity in the case of Portugal. Further, they concluded that the announcement of the changes was accompanied by increased in the volumes of bond issuance in sovereign primary markets. Combined with the narrowing of bid-ask spreads, improvements in secondary markets translated to better access to new funding. This

result directly addressed the goal of those economic adjustment programmes to lessen liquidity concerns.

VII. Conclusion

The European sovereign debt crisis, particularly that faced by the euro-area countries, presented an unprecedented challenge to the European leaders, institutions, and policymakers. However, the crisis gave rise to the formation of the Troika, a unique construction that allowed for cooperation between regional institutions and a major global financial institution. As the IMF acted in coordination with the European Central Bank and European Commission with its country-specific programmes, it played a significant role in shaping the understanding of the nature of the crisis in a few aspects. At the high level, the established lending frameworks of the IMF informed its European partners in the Troika the dynamics of the bank-sovereign relationship and motivated the euro-area to establish long-term commitment to address debt sustainability. The shift of the types of IMF arrangements from shorter-term SBA to longer-term EFF revealed an institutional acknowledgement of the greater potential impact of the crisis. The IMF lending framework on debt sustainability further motivated the euro-area lenders to account for the projected financing needs of programme countries, as evident in the change in Greece's debt sustainability after the loan extension. Last but not the least, the IMF was the leader in identifying the bank-sovereign link and the potential vicious circle that the European nations were in. By contributing its resources into analytical research and advocating for an emphasis on the need of the financial sector, the IMF appropriately led its European partners to realize the urgency of the situations in Ireland and Portugal.

The three Troika programmes discussed in this paper are atypical IMF programmes because of their longer durations, size of loans, and cooperation with other financial institutions. The outcome of the EFSF and other smaller euro-area official support was generally regarded to be successful, paving the road to the subsequent design and implementation of the European Stability Mechanism. This learning and adjustment process for the European institutions was well captured by the changes of the lending terms, in the context of the critical role that the IMF played in facilitating the understanding of the crisis.

VIII. Appendix

Table 1 Greece Programmes Overview

			European Official Support				IMF Support			
Programme Date	Programme Description	Total Loan Size	Form and Contribution	Loan Maturity	Blended Lending Rate	Total Disbursed	Form and Contribution	Maturity	Interest Rate	Total Programme Loan Disbursed
May-2010	First economic adjustment programme called Greek Loan Facility (GLF), participated by euro area countires and IMF	€110 Bn	€80 Bn (up to €30 Bn first year) Bilateral loans from euro area countries pooled by the European Commission	5 years	4.041	52.9	€30 Bn Stand-By Agreement (SBA)	3 years	3.23	73
Jun-2010	*EFSF established*									
Feb-2012	›mic adjustment programme partipated by the EFSF and IMF		€144.7 Bn	10 years	3.78	141.8	€28 Bn Extended Fund Facility EFF	8 years		153.8
Aug-2015	ESM economic adjustment programme	€86 Bn	€86 Bn Financial Assistance Facility Agreement (FFA) from Esm	20 years	0.50%	61.90%	N/A	N/A	N/A	

Table 2 Ireland Programme Overview

				European Official Support			IMF Support		
Programme Country	Programme Date	Programme Description	Total Loan Size	Form and Contribution	Loan Maturity	Interest Rate	Form and Contribution	Loan Maturity	Interest Rate
Ireland	Dec-2010	Three year joint programme	€85 Bn	€62.5 Bn EFSM loan (€22.5 bn) EFSF loan (€17.7 bn) Supplemented by bilateral loans from other European official lenders	7.5 years	5.25	€ 22.5 billion Extended Fund Facility (EFF)	7 years	**3.37**

Table 3 Portugal Programme Overview

				European Official Support			IMF Support		
Programme Country	Programme Date	Programme Description	Total Loan Size	Form and Contribution	Loan Maturity	Interest Rate	Form and Contribution	Loan Maturity	Interest Rate
Portugal	May-2011	Three year joint programme	€78 bn	€ 52 Bn EFSM loan (€26 bn) EFSF loan (€26 bn)	7.5 years	5.47	€ 26 billion Extended Fund Facility (EFF)	7 years	3.37

Table 4

Source:

Corsetti, Giancarlo, Aitor Erce, and Timothy Uy. "Official Sector Lending Strategies During the Euro Area Crisis." Centre for Macroeconomics (CFM), 2017. https://EconPapers.repec.org/RePEc:cfm:wpaper:1720.

Table 2. Evolution of the terms of official support in the euro area

		European Official Support					International Monetary Fund Support				
		Vehicle	Program Duration	Size	Loan Maturity	Spread over reference rate[1]	Program Type	Program duration	Size	Loan Maturity	Spread over 3-month SDR
Greece	May-10	GLF	3 years	80 bill	5 years (+3 grace period)	300-400 bps	SBA*	3 years	30 bill	3 years	200-300 bps
	June-2011	GLF			10 years	200-300 bps					
	March-2012	GLF			20 years	150 bps					
	March-2012	EFSF	3.5 years	144.7 bill	20 years	150 bps	EFF	4 years	28 bill	8 years	200-300 bps
	December-2012	EFSF			30 years (+10 grace period)	0 bps					
	December-2012	GLF			30 years (+10 grace period)	50 bps					
Ireland	December-2010	EFSM	3 years	22.5 bill	7.5 years	250 bps					
	December-2010	EFSF	3 years	17.7 bill	7.5 years	250 bps	EFF	4 years	22.5 bill	8 years	200-300 bps
	July-2011	EFSF/EFSM			15 years	0 bps					
	June-2013	EFSF/EFSM			22 years						
Portugal	May-2011	EFSM	3 year	26 bill	7.5 years	215 bps					
	May-2011	EFSF	3 year	26 bill	7.5 years	210 bps	EFF	4years	26 bill	5 years	200-300 bps
	July-2011	EFSF/EFSM			15 years	0 bps					
	June-2013	EFSF/EFSM			22 years						
Spain	Nov-12	ESM	2 years	100 bill**	12.5 years	30 bps	-	-	-	-	-
Cyprus	May-13	ESM	3 years	9 bill	15 years	10 bps	EFF	4 years	1 bill	4 years	200-300 bps
Greece	Sep-15	ESM	3 years	86 bill	32 years	10 bps					

Sources: International Monetary Fund, European Commission, European Financial Stability Facility (EFSF) and European Stability Mechanism (ESM). EFSM stands for European Financial Stability Mechanism.* The SBA program was replaced by the susequent EFF. [1] For EFSM loans the reference rate is the EU funding cost, for the EFSF the EFSF's funding cost and for the GLF the 6 month Euribor. ** Only 41.3 billion were actually disbursed. *** On December 2021, the EFSF waived Greece the payment of the guarantee commitment fee and deferred interest payments for 10 years.

Figure 1.1: Loan Maturity Structure Prior to and After Extensions

Source: ESM Evaluation Report Figure 4.2

Figure 4.2

Maturity structure prior to and after extensions

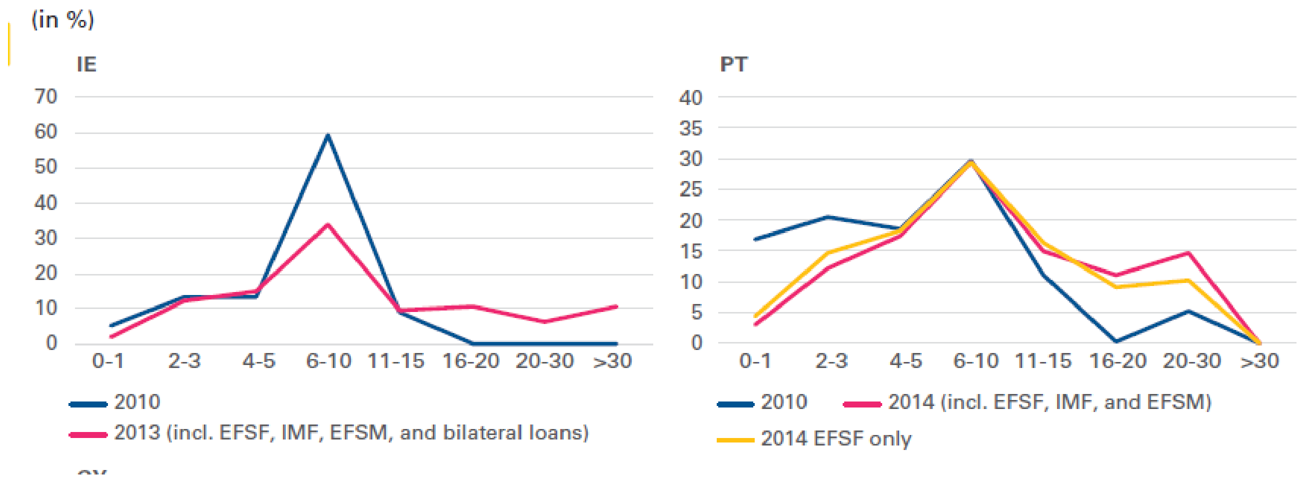
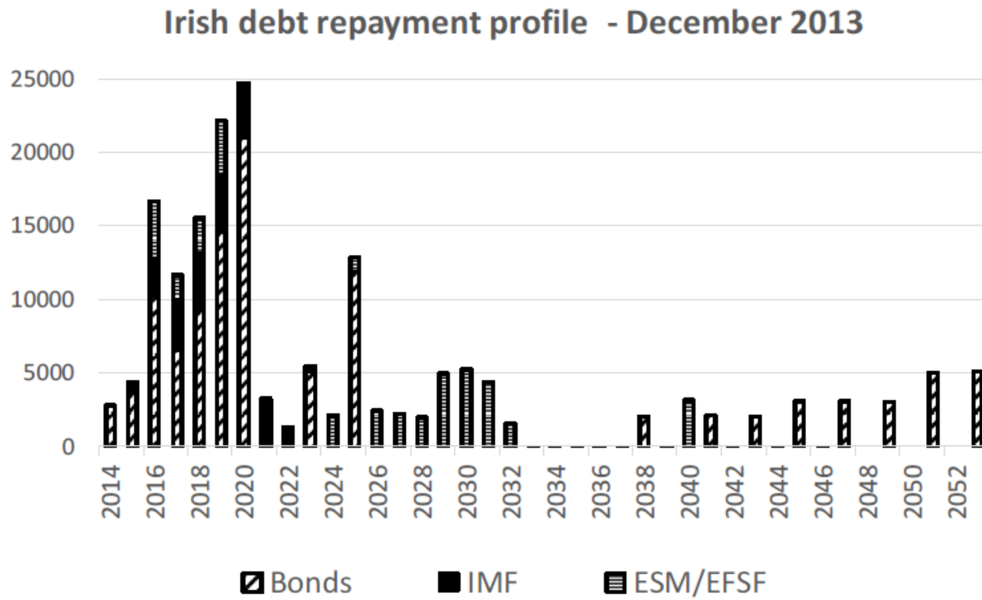


Figure 1.2: Irish Debt Repayment Profile by Creditor Type

Source: Corsetti, Giancarlo, Aitor Erce, and Timothy Uy. "Official Sector Lending Strategies During the Euro Area Crisis." Centre for Macroeconomics (CFM), 2017.



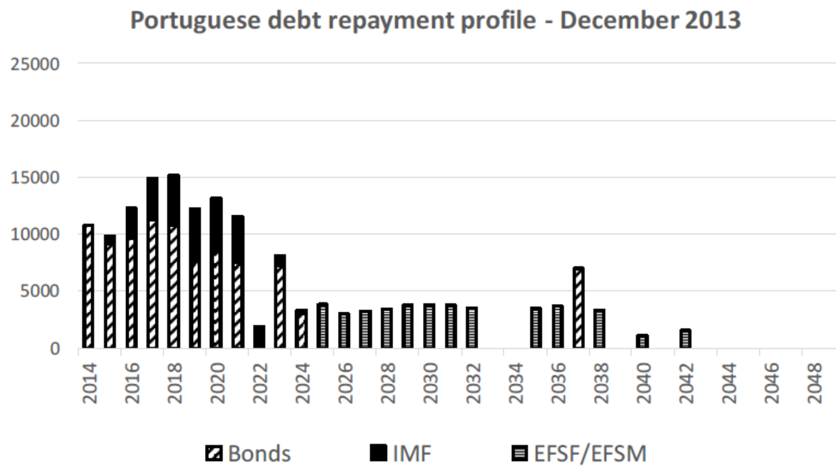


Figure 2.1 Greece EFSF Blended Rate

Graph made by author from data compiled by Corsetti, Giancarlo, and Uy

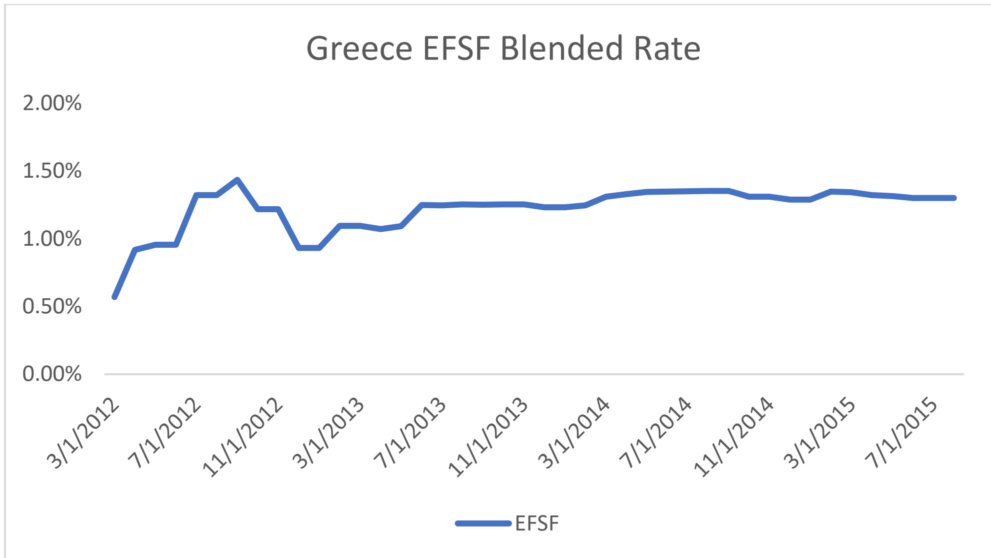


Figure 2.2 Portugal EFSF Blended Rate

Graph made by author from data compiled by Corsetti, Giancarlo, and Uy

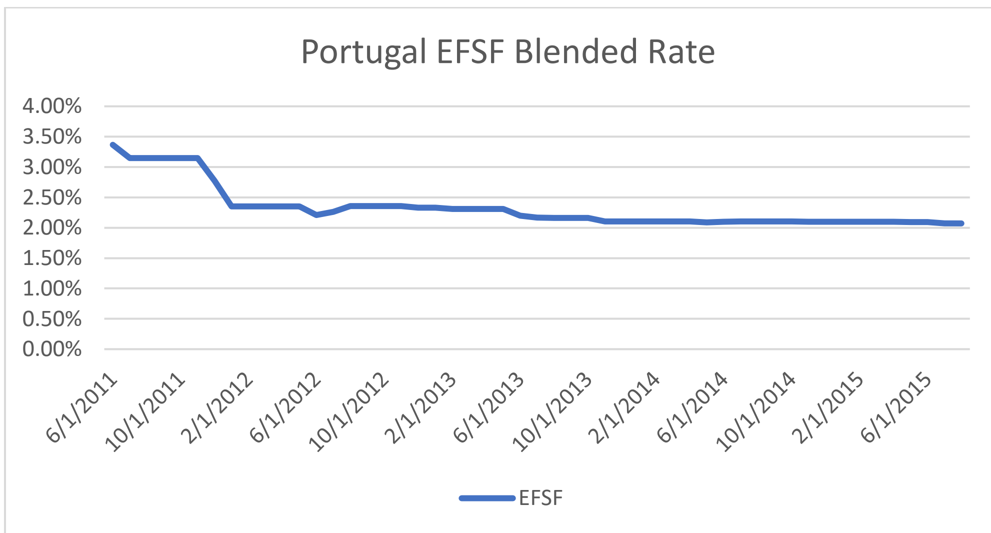
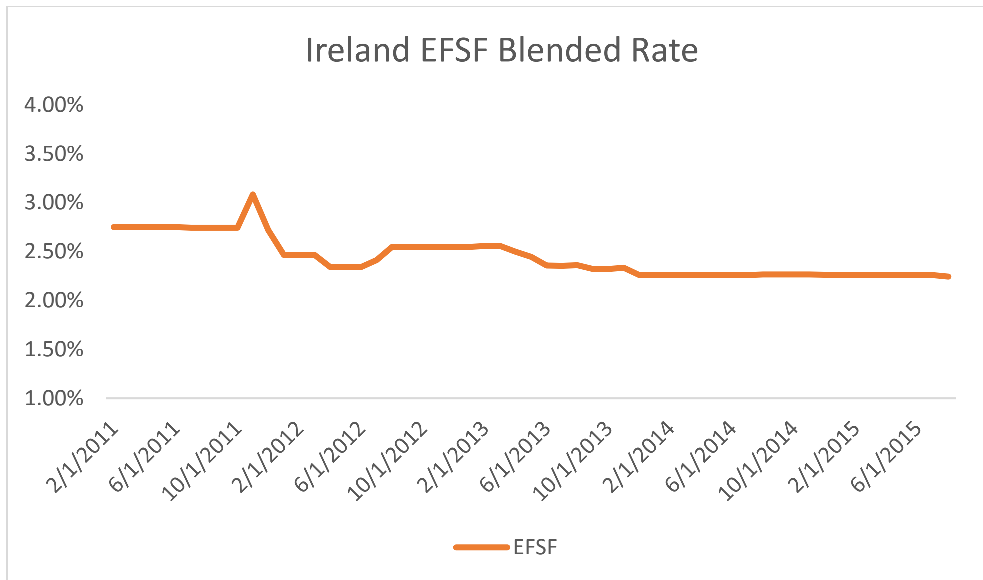


Figure 2.3 Ireland EFSF Blended Rate

Graph made by author from data compiled by Corsetti, Giancarlo, and Uy



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