

**The London School of Economics and  
Political Science**

**Sovereign Risk and Financial Crisis**

**The International Political Economy of the  
Euro Area Sovereign Debt Crisis**

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## **DECLARATION**

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## **ABSTRACT**

For decades, scholars, investors and policymakers treated sovereign default risk as a defining feature of emerging market economies. Recently, sovereign risk has re-emerged as an empirical issue for advanced economies, raising new questions for academic research. This thesis investigates the link between political economy factors and financial market perceptions of sovereign risk during the Euro area debt crisis, representing one of the timeliest academic analyses of this episode. It combines an innovative international political economy framework applicable to developed democracies with in-depth analysis of government bond market fluctuations during the Greek and Irish sovereign debt crises.

The thesis argues that political factors influence sovereign risk premia in developed democracies, particularly in crisis periods. This is in contrast to the dominant claim that politics has no or little direct impact on government bond yields in advanced economies. Specifically, it highlights the importance of the domestic political system, finding a role for socio-political contestation and its interaction with institutional checks and balances. Moreover, it expands the analysis to the international sphere, integrating the so far mostly separate analyses of the domestic and international sources of sovereign credibility. Specifically, it argues that external de-facto veto players and the degree of proximity between sovereign borrower and international creditors are also significant. Finally, it shows that investment analysis evolves over time, so that the categorisation of sovereign borrowers as either developed democracies or emerging markets, found to prevail during a specific historical phase, may not hold in the longer term.

Both the Greek and the Irish sovereigns suffered government bond market reversals in 2010, but their overall sovereign debt crisis experiences differed in length and severity. When compared with the Greek experience, Ireland's lower degree of socio-political contestation and greater proximity to international creditors contributed to supporting the sovereign's financial market credibility.

## **ACKNOWLEDGEMENTS**

When the theme of this thesis was being defined four years ago, it was far from obvious that the issue of Euro area sovereign risk would become as prominent as it has in the last two years. Meanwhile, a severe financial crisis hit the United States and Europe, and governments emerged as the only remaining lifeline for failing banks and a collapsing real economy. Since then, a number of Euro area governments have come into the firing line, burdened by bank rescues, automatic stabilisers and countercyclical fiscal policy, and one of the main events in the financial history of the last few decades has unfolded.

In this light, I owe huge thanks to my supervisor Andrew Walter and the LSE Department of International Relations for recognising the prospective interest of my research proposal early on and being supportive through the inevitable fluctuations in external conditions. The constantly evolving nature of the Euro area sovereign debt crisis during the timeframe of this PhD added a number of challenges, but the project will as a result hopefully have gained in timeliness and interest for the academic and policy community. Thanks go also to Willem Buiter, who contributed as advisor in the first stages of the research project.

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# Chapter 1

## *Overview of the research project*

### **1.1 INTRODUCTION**

For a number of decades, sovereign risk was considered by most a defining feature of emerging markets. While emerging market economies experienced repeated cycles of booming capital inflow followed by financial crisis, the environment appeared much calmer in advanced economies, with no default reported in the post-war period. Reflecting this, the direct academic study of sovereign risk was mostly concentrated on the emerging world.

However, things have changed dramatically in the last few years. In the aftermath of the global financial crisis, advanced economies saw a sharp rise in their actual and contingent liabilities, making medium-term public debt sustainability increasingly challenging. As a result, a number of developed democracies lost their status as 'risk-free' borrowers in financial markets: some have seen a significant increase in their financing costs in global markets, while a few have lost access outright to international finance. The Euro area sovereign debt crisis represents most dramatically the increased difficulties of developed democracies in global financial markets.

The deterioration in public finances and growth prospects is common to a number of developed economies, including the US, the UK and Japan, as well as most Euro area economies. However, financial markets have thus far punished Euro area sovereigns, and particularly the weaker economies in the Euro area<sup>1</sup>, more severely than stand-alone

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<sup>1</sup> Greece, Ireland, Portugal, Spain and Italy.

developed democracies<sup>2</sup>. The particular nature of Euro area sovereign debt, as argued by De Grauwe (2012), has likely contributed to accelerating market concerns about sovereign creditworthiness. At the time of writing, however, it is too early to tell whether the remaining developed-world sovereigns will remain immune to market reversals in the coming years. Against this uncertain backdrop, the re-emergence of sovereign risk as an empirical issue for a new group of countries is bound also to ignite interest in academia in studying its features.

This thesis places itself in the historical and empirical context described above. It aims to contribute to understanding how international financial markets price sovereign risk in developed democracies, and specifically in the developed democracies of the Euro area. Specifically, it alerts readers to the role that the political economy backdrop can play in influencing sovereign credibility, particularly during a sovereign debt crisis. Indeed, the overarching hypothesis of this research project is that politics matters for investors' assessment of developed democracies as well as for emerging markets sovereigns.

In particular, as a result of the theoretical and empirical analysis, and in a departure from the prevailing literature (mainly Mosley, 2003), this thesis argues that the socio-political landscape influences government bond pricing in developed democracies, particularly during sovereign debt crisis. In so doing, it breaks with the prior academic tradition arguing that politics has little or no impact on bond spreads in advanced economies. Moreover, it extends the coverage of political economy factors from the domestic to the international sphere, integrating the domestic and international perspectives that have so far mostly been analysed separately.

The empirical focus on the Euro area sovereign debt crisis provides a timely and policy-relevant analysis of an issue of high importance from both positive and normative perspectives. For Euro area countries, issues related to sovereign creditworthiness go well

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<sup>2</sup> Iceland was the first advanced economy to require external support, in 2008. The sovereign did not formally default on its debt, but four of its banks failed and the country received an IMF loan. So far it has been the only stand-alone developed democracy to need one. Meanwhile, a number of new EU member states needed programmes (Hungary, Latvia and Romania).

beyond the boundaries of national policymaking, reaching to the heart of the monetary union's governance infrastructure.

The core of this project is concerned with the interaction of politics, economics and financial markets. In particular, it focuses on an area where interactions between an unusually heterogeneous set of factors blend into observable variables in financial markets. To address such an interdisciplinary issue, it gathers insights from a variety of disciplines and aims to avoid artificial boundaries between political and economic sciences, in line with the international political economy tradition.

This first chapter introduces the research project. The next section (1.1.1) summarizes the key arguments of the thesis in the context of the relevant international political economy literature. Section 1.2 illustrates the re-emergence of sovereign risk as an issue for developed democracies and defines the relevant concept of sovereign risk. Section 1.3 introduces the experience of the Euro area sovereign debt crisis and identifies the peculiar features of sovereign risk in the monetary union. Section 1.4 defines more specifically the focus and origins of the research project. Section 1.5 presents the overall research strategy and the empirical methodology to be applied. Section 1.6 concludes with the chapter structure of the thesis.

### **1.1.1. Key arguments and literature**

This research project investigates the domestic and international political economy factors that impacted sovereign credibility during the Euro area sovereign debt crisis. We carry out the analysis in two steps. First, we develop an international political economy framework for the analysis of sovereign risk perceptions in developed democracies that can be applied to Euro area countries<sup>3</sup>; second, we test the framework empirically through the investigation of two events: the sovereign debt crises that hit Greece and Ireland in 2010.

This thesis advances three key arguments in the interpretation of the Euro area sovereign debt crisis and the events observed in Greece and Ireland in particular. First, investment analysis evolves over time, so static categorisations of countries such as the traditional

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<sup>3</sup> This is as opposed to the traditional focus on emerging markets.

division between developed democracies and emerging markets may not hold in the long term. Second, the domestic socio-political system affects sovereign risk perceptions in developed democracies, particularly during a sovereign debt crisis. Third, the financial market credibility of a sovereign under fiscal stress is influenced also by the role of external de-facto veto players and the degree of proximity between debtor and international creditors.

The existing literature has typically found limited direct impact of political factors on sovereign risk premia in developed democracies. In her analysis of government bond markets between 1981 and 1997, Mosley (2003) finds that investors in developed democracies focus on a limited number of macroeconomic short-cuts to inform their country choices, with little interest in politics. Bernhard and Leblang (2006b) identify an impact of political processes on interest rate volatility, but do not analyse the broader role of institutional and societal features. Similarly, Alesina and Roubini (1997) uncover some evidence that US bond markets are impacted by fluctuations in opinion polls ahead of presidential elections, consistent with the predictions of partisan political cycle theories. Empirical studies of Euro area government bond spreads (for example those of Codogno, Favero and Missale, 2003; Manganelli and Wolswijk, 2008; Attinasi, Checherita and Nickel, 2009) do not engage with the role of political factors. This is particularly striking since the fundamentally political nature of sovereign debt itself (as highlighted by Eaton, Gersovitz and Stiglitz, 1986) and a preliminary observation of events during the Euro area sovereign debt crisis suggest that political institutions and the international political economy context should be found to assume considerable relevance for financial markets.

In order to explain the narrower focus of investors in developed democracies, Mosley (2003) argues that investors distinguish between developed democracies, which are assumed to be 'good credits', and emerging markets, which carry default risk. While financial markets impose broad constraints on government policy autonomy in emerging markets, they impose only narrow constraints in developed democracies. In contrast to Mosley's static perspective, we propose a dynamic model of investor behaviour, where markets update their pricing strategies over time. In so doing, we place financial market behaviour in an intermediate position between full efficiency and complete irrationality, as in the work of Lo (2004) and Willett (2000).

Specifically, we argue that whenever default risk becomes salient, and typically in a sovereign debt crisis, investors will broaden the scope of their analysis to include political factors, in developed democracies as well as in emerging markets. When a sovereign borrower approaches a situation where a choice concerning default is potentially to be made, political trade-offs emerge that may not have been as strong, or even relevant, in good times. As a result, politics becomes increasingly important in assessing sovereign creditworthiness, and financial markets will take account of this, adapting valuation models to changing circumstances.

North and Weingast (1989) provide the seminal paper for analysing the domestic political sources of sovereign credibility. Comparing the experiences of England and France in the early modern era, they argue that a higher number of institutional checks and balances in the political system boosts sovereign credibility in financial markets. The findings of North and Weingast and their disciples appear, however, to conflict with the predictions of the ‘consolidation’ literature – represented, for example, by Roubini and Sachs (1989) and by Alesina and Roubini (1997) – which postulates that that higher political fragmentation makes fiscal consolidation more difficult. MacIntyre (2001) proposes a compromise between the two approaches to explain differing degrees of capital outflows across countries during the Asian financial crisis of the 1990s: financial markets dislike excesses in both policy volatility and rigidity, and thus prefer intermediate veto-player configurations. MacIntyre’s focus is strictly on institutional veto players and on emerging markets<sup>4</sup>. Developed democracies, however, present considerably less variation in the distribution of formal veto authority and do not occupy the extremes found in emerging markets.

In the context of this debate, we argue that differences in institutional veto player constellations are not sufficient for understanding how markets distinguish between

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<sup>4</sup> MacIntyre (2001) uses Tsebelis’s (1995, 2002) veto-player framework to operationalise the concept of ‘checks and balances’ and compare different political systems. The definition of veto players used by MacIntyre follows the definition of veto players by Tsebelis (2002), which includes both strictly defined constitutional veto players and partisan veto players, determined by the party system within the constitutional veto players. In our framework, we use the terms “institutional” or “formal” veto players to refer to veto players as defined by MacIntyre (2001) and Tsebelis (2002). Meanwhile, our broader concept of veto players includes both “formal” and “de facto” players as identified in the following pages.

sovereign borrowers in developed democracies. Instead, we posit that investors take into account the broader socio-political system. In particular, we identify the degree of socio-political contestation, as well as the interaction between the number of formal veto players and socio-political contestation, as relevant for sovereign credibility.

Moreover, strong external creditors may act as external de-facto veto players, particularly when the possibility of external bail-out - from the International Monetary Fund (IMF), European institutions or bilateral sources – emerges as an additional option available to a government under fiscal stress<sup>5</sup>. In these circumstances, we argue that also the preferences of those players will influence sovereign risk perceptions in the debtor country. Broadly, we argue that financial markets will assess sovereign borrowers more favourably when there is greater economic, financial and ideological proximity between debtor and creditor countries. Indeed a sovereign borrower is less likely to default on its debt to external creditors the higher the direct and indirect costs are perceived to be. The issue-linkages approach to sovereign debt highlights, for example, that trade sanctions can act as an incentive to sovereign debt repayment (Burlow and Rogoff, 1989). Indirectly, reputational theories of sovereign debt (Eaton and Gersovitz, 1981; Tomz, 2007) also underscore the importance that external considerations have for the decisions of ailing sovereign borrowers. On the other hand, the strong creditor country is more likely to be willing to provide assistance if it faces a high level of exposure (and thus potential losses) towards the debtor, either directly or indirectly through its banks or companies. In a similar vein, the literature on the political economy of IMF lending highlights the role of US interests in IMF lending decisions (Woods, 2003; Oatley and Yackee, 2004).

Crucially, the focus of this thesis on the analysis on political economy factors is not intended to downplay the importance of economic and financial variables as sources of sovereign debt crisis and indicators of sovereign stress. Sovereign debt crises are very complex events and a huge set of factors can interact to determine the overall crisis outcomes. Political factors should be seen as contributory factors to a sovereign debt crisis, rather than as exclusive drivers. With regard to the Euro area sovereign debt crisis, in particular, a number of scholars have highlighted the specific fragilities of the EMU

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<sup>5</sup> In our approach, external creditors are either foreign sovereigns or international institutions. The category includes both existing creditors and potential rescuers.



governance system that increase the vulnerability of member countries to sovereign debt crisis, (for example De Grauwe, 2012; De Grauwe and Ji, 2012; Featherstone, 2010). We take a different approach, adopting concepts from the international political economy sphere in order to analyse the crisis as it unfolded, rather than focussing on the economic and institutional conditions that led to it.

## **1.2 SOVEREIGN RISK, DEVELOPED DEMOCRACIES AND FINANCIAL CRISIS**

### **1.2.1 A major test for state-market relations**

The global financial crisis which started in 2007 shook many of the convictions prevailing among economists, financial market practitioners and policy makers. In particular, the relationship between financial market players and national governments assumed new, unexpected contours.

The financial crisis followed a period when the balance of power had appeared to be shifting from national governments towards the increasingly globalised marketplace (Strange, 1996). But, as crisis hit, national governments, central banks and international institutions had to intervene forcefully to shore up markets, bail out financial institutions and support the real economy. Public money flowed in billions from governments to banks in the United States, the United Kingdom and many other countries. In the process, numerous banks were nationalised, *de jure* or *de facto*. Public authorities made it a priority to strengthen their regulatory and supervisory grip on financial institutions and markets.

In these circumstances, the contradictory position of financial markets with respect to the desired role of the state emerged starkly. In spite of their advocacy in good times of a retrenchment in the role of the state, markets more than welcomed state protection during the crisis. As Walter and Sen pointed out: “The financial turmoil ...brought home once again the lesson that financial sector actors prefer rapid and deep state intervention during crisis” (2009, p. 168). Meanwhile, the rescue programmes of the US administration received mixed reviews outside the financial institutions that benefited from these. Stiglitz (2009a) highlighted the risks of “the privatizing of gains and the socializing of losses”, while

suggesting that the toxic asset purchase plan outlined in late March 2009 amounted to a "robbery of the American people" (Stiglitz, 2009b).

By unveiling striking weaknesses in financial markets and institutions, the crisis appeared at first to have put some power back into the hands of nation-states. Willingly or under compulsion, states found themselves the determinant forces in the future of financial markets, choosing which institutions and sectors to support, owning a large part of the banking sector, and dictating new and increasingly more pervasive rules. However, this also raises the question of whether the new state of affairs was one additional symptom of 'regulatory capture' or represented a real re-balancing of power away from the globalised private sector and towards the nation-state. Indeed, the additional financing needs faced by sovereigns soon started to push in the opposite direction: sovereigns were more than ever in need of raising abundant and reasonably priced financing in international financial markets, and this strengthened a key channel for financial market capacity to sanction government policies and to influence these.

Indeed, the flip side of the increase in the real or perceived role of the state was a burgeoning financial burden. In many cases, the financial risks assumed by financial institutions were transferred wholesale to national governments. The destiny of banking systems and the reference sovereigns became inextricably linked. While smaller countries with proportionally huge banking sectors (as in the case of Iceland, where bank assets amounted at more than 1000% of GDP prior to the collapse) tipped over relatively quickly, larger or more diversified countries, such as the UK and the US, faced a massive increase in public debt, set to haunt the nations for years to come.

The increase in actual and contingent liabilities assumed by the public sector in financial sector rescues was compounded by a sharp underlying deterioration in public finances as a consequence of real estate crisis, recession and surging unemployment, as well as by the cost of expansive fiscal policy measures put in place to try and cushion the fallout of the financial crisis for the real economy and society in general. The situation was made worse by the fact that a number of advanced economies had failed to adjust their public finance situation during good times, and aging populations added to the longer-term sustainability risks.

The fulcrum of the global financial crisis and its real economy and public finance repercussions was in developed democracies, while emerging market economies fared much better overall. In the advanced economies as a whole, public debt rose sharply from 74% of GDP in 2007 to 104% of GDP in 2011, having already been on an upward trajectory in the preceding three decades. Meanwhile, over the same period, public debt was fairly stable in emerging markets, hovering in a range between 33% and 39% (IMF, 2012). Existing projections, for example those of the Organisation for Economic Cooperation and Development (OECD, 2012), point to further increases in 2012 and 2013. In the OECD forecasts, the United States, the United Kingdom and Japan, as well as a number of Euro area countries, are expected to have general government debts exceeding 100% of GDP by next year (Figure 1.2.1-1). Only a few advanced economies, such as Australia, Switzerland, Sweden and Norway, have maintained healthy public finances. Overall, the deterioration since the 2008 financial crisis has left “public finances in the majority of advanced industrial countries...in a worse state today than at any time since the industrial revolution, except for wartime episodes and their immediate aftermaths” (Buiter, 2010, p. 3). True, the extent and nature of the deterioration in the last few years and the magnitude of overall problems differ across countries; nevertheless this remains a widespread trend in the advanced economies.

Figure 1.2.1-1 Developed democracies: key fiscal data

Source: OECD (2012), % of GDP, 2013 data is OECD forecast

	<u>Gross Government Liabilities</u>			<u>Government Financial Balance</u>		
	2006	2009	2013	2006	2009	2013
<b>United States</b>	66.4	89.7	111.2	-2.2	-11.6	-6.5
<b>Japan</b>	166.7	188.8	222.6	-1.3	-8.8	-10.1
<b>UK</b>	46.0	72.4	108.2	-2.7	-11.0	-6.6
<b>Canada</b>	70.4	82.4	81.4	1.6	-4.9	-2.4
<b>Australia</b>	15.6	19.4	27.8	2.3	-4.5	0.4
<b>Sweden</b>	53.9	51.8	46.0	2.2	-1.0	0.3
<b>Euro area</b>	74.7	87.8	99.9	-1.4	-6.4	-2.0
<b>Germany</b>	69.8	77.4	87.8	-1.7	-3.2	-0.6
<b>France</b>	71.2	91.2	107.3	-2.4	-7.6	-3.0
<b>Italy</b>	116.7	127.7	122.1	-3.4	-5.4	-0.6
<b>Spain</b>	46.2	62.9	90.9	2.4	-11.2	-3.3
<b>Greece</b>	117.0	134.0	173.1	-6.0	-15.6	-4.9
<b>Portugal</b>	77.3	92.9	130.1	-4.6	-10.2	-3.5
<b>Ireland</b>	29.0	71.1	126.9	2.9	-14.0	-7.6

In turn, the increase in debt did not go unnoticed in financial markets, which started to require higher rewards in order to provide funding for the governments of a number of advanced economies and to insure against government default. As the 'risk-free' status of developed democracies, as a group, was put in doubt, investors started to differentiate more markedly among sovereign borrowers within the category.

On the one hand, borrowing conditions deteriorated sharply for troubled advanced economy sovereigns: government bond yields rocketed for countries like Greece, Portugal and Ireland, hit by outright sovereign debt crisis, and increased significantly in other developed democracies, such as Italy and Spain. By the end of June 2012, ten-year government bond yields were 5.8% in Italy, 6.3% in Spain, 10.2% in Portugal and 25.8% in Greece.

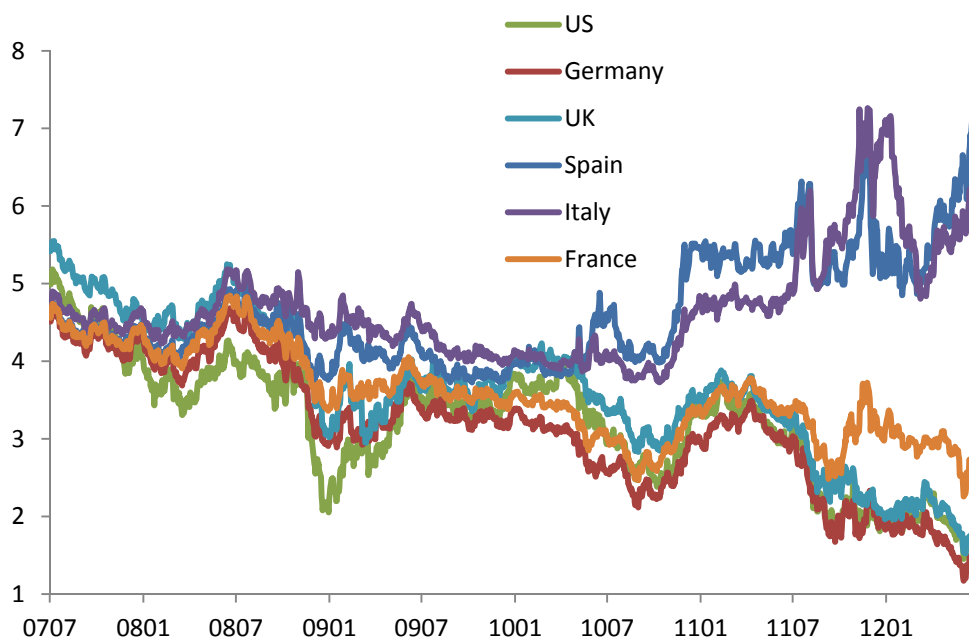
On the other hand, sovereigns considered relatively stronger have seen falling funding costs in the period since the beginning of the global financial crisis: government bonds in these countries benefitted from a mixture of safe-haven flows, monetary easing and in some cases outright central bank purchases<sup>6</sup>. By the end of June 2012, ten-year government bond yields had fallen to 1.6% in the US, 1.7% in the UK, and 1.5% in Germany (Figure 1.2.1-2).

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<sup>6</sup>'Quantitative easing' in the US and the UK, for example, led to central bank purchases of a sizeable share of the stock of outstanding government debt in both countries.

**Figure 1.2.1-2 Ten-year government bond yields in selected developed democracies**

% per annum, daily data, source: Bloomberg



While diverging moves in government bond yields reflected a number of factors besides the pure market assessment of government creditworthiness, sovereign credit default swap (CDS)<sup>7</sup> premia increased more broadly, pointing to a fairly widespread deterioration in perceived creditworthiness across developed democracies. The price (or spread) of a credit default swap can be interpreted as the costs of insuring against the default of the reference entity, so it represents a good approximation of perceived sovereign risk in financial markets<sup>8</sup>. In the sovereign crisis-stricken economies of Greece, Ireland and Portugal, sovereign CDS spreads reached levels consistent with default or generally distressed conditions. Significant increases were also recorded in countries on the cusp of a crisis, namely Italy and Spain. While other countries saw more moderated moves, increases were

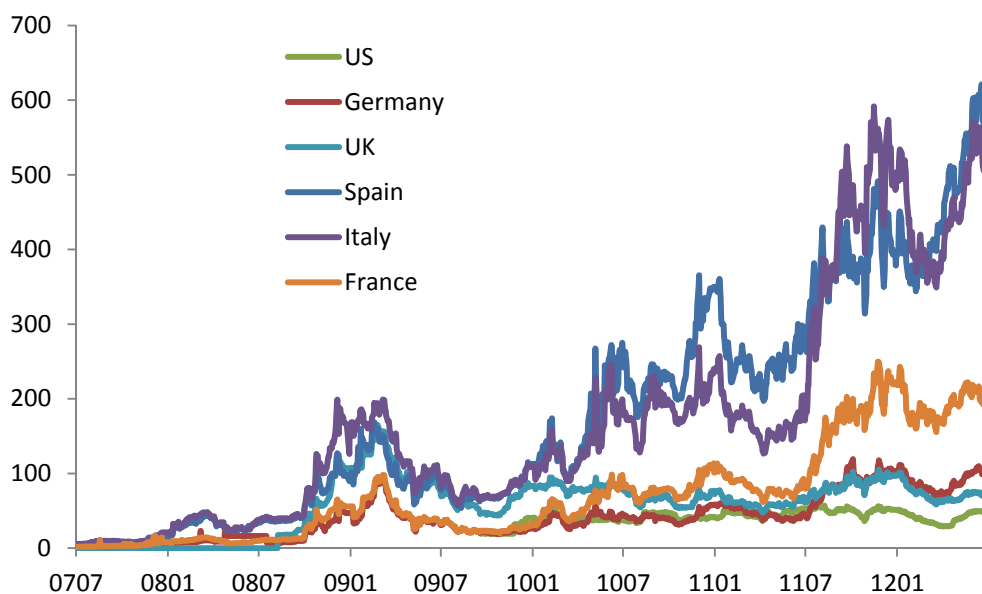
<sup>7</sup> A credit default swap (or CDS) is a credit derivative contract where the buyer pays a periodic fee, typically expressed in basis points per annum, paid on the notional amount, in return for a payoff by the seller if the reference entity defaults (JPMorgan, 1999). Thus the price of a credit default swap is often loosely interpreted as the cost of insuring against the default of the reference entity.

<sup>8</sup> A caveat here is that CDS prices can at times be distorted by technical factors, primarily market liquidity and demand supply mismatches, particularly as the CDS market is an over-the counter market. That said, the broad underlying message remains rather clear.

reported in most developed economies, including France, the UK and Japan. Even the US and Germany saw some - although comparatively modest - increases in CDS price over the period (Figure 1.2.1-3).

**Figure 1.2.1-3 5-year sovereign CDS spreads in selected developed democracies**

basis points , daily data, source: Bloomberg



## 1.2.2 Sovereign risk and developed democracies

As a result of the developments described above, the issue of sovereign default risk in developed democracies re-emerged in financial markets, with investors discriminating more carefully within the group. In this context, the concept of 'risk-free' government debt in developed democracies was a crucial casualty of the financial crisis. Doubts about the absolute credibility of developed democracies' capacity and willingness to repay their debts in the near and distant future emerged first and most dramatically in developed economies considered to be in the most vulnerable positions, but it was not limited to these and reached all the way to US Treasury debt. Some even started to question whether academics and market practitioners could still use Treasury yields as the reference 'risk-free' interest rate (De Keuleneer, 2008).

The marked deterioration in the ratings attributed to the government bonds of developed democracies by specialised agencies (as shown for example by BIS<sup>9</sup>, 2012) is another symptom of this trend. The sharp downgrades in the debt of the most troubled countries, such as Greece and Portugal, are not surprising and indeed came late relative to underlying and market developments, but it is remarkable how even the US and French governments lost their AAA credit ratings. The US's loss of its Standard and Poor's AAA rating in August 2011 is most striking from this perspective, and is clearly symptomatic of the progressive deterioration in the perceived creditworthiness of advanced economy sovereigns.

For decades before these developments, sovereign default risk had been identified with developing and emerging economies. Anderson, Breedon, Deacon, Derry and Murphy (1996) point out that "Investors don't perceive default risk for developed country bonds" (p. 2). Similarly, Mosley (2003) finds that investors distinguish between developing and developed economies on the basis of presence or lack of outright sovereign default risk<sup>10</sup>.

The increase in perceived sovereign default risk across the globe since the 2008 financial crisis suggests that scholars and practitioners need to allow for the possibility that doubts about the solvency of developed economies may emerge in extreme situations, such as in the case of a financial crisis. The absence of perceptions of default risk for developed democracies in recent decades may indicate that investors and scholars were unduly influenced by the lack of outright sovereign default experiences in advanced economies since the 1950s.

Another feature that may have encouraged investors and academics to consider advanced economy debt as risk-free is the fact that it is normally issued in domestic currency. While emerging market economies often suffer from so-called 'original sin' (Eichengreen, Hausman, and Panizza, 2003, p. 1) and thus need to raise finance in foreign currency, developed democracies typically issue debt in domestic currency. Domestic currency denomination opens the additional option of debt monetisation for a sovereign difficulty,

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<sup>9</sup> Bank for International Settlements.

<sup>10</sup> Accordingly, even a country like Japan, which in the 1990s and 2000s experienced a vicious cycle of financial crisis, recession, deflation, deterioration in public finances and some credit rating downgrades, continued to enjoy very low bond yields and easy access to financial markets.



as an alternative to outright default or fiscal tightening. Debt monetisation can be seen as an indirect form of debt default, albeit with different distributional implications, and historically inflation has often been seen as a less controversial way of eroding the real value of domestic debt (Reinhart and Rogoff, 2009, p. 174). However, inflationary default may not always be the route of choice, particularly when the costs in terms of output loss and rampant inflation become extremely elevated. Indeed, Reinhart and Rogoff (2008b) show that outright default on domestic debt has occurred a number of times in history, although “under situations of greater duress than for pure external default” (p. 3). Moreover, in the current institutional setting, a significant subset of developed democracies, the Euro area countries, have lost the option of unilaterally monetising their debt.

Accordingly, recent experience shows that investors can at times face the eventuality of one or more developed democracies moving into the ‘bad credit risk’ category previously considered to include only emerging markets. A longer historical perspective (that is, looking also at the period before World War II) confirms that a specific set of countries cannot forever be considered completely immune from default risk, particularly in the event of severe financial crisis. In a series of papers reviewing historical episodes of financial crisis, Reinhart and Rogoff highlight the following points:

- Sovereign defaults are much more frequent in emerging markets and no major sovereign credit event had occurred in advanced economies since 1952. However, a number of governments now considered highly creditworthy did experience credit events (including default, debt restructuring, cuts or delays in payments) in the first part of the twentieth century. Only a small set of countries had never defaulted (Reinhart and Rogoff, 2008a, p. 14).
- Sovereign debt defaults are most frequent for foreign-denominated and foreign-held debt, but they do occur also in the case of domestic-denominated debt (Reinhart and Rogoff, 2008b, p. 10).
- The incidence of sovereign defaults increases in the event of severe financial crises, in the case of both emerging and developed markets. In particular, during the Great

Depression sovereign debt defaults picked up for both developed and developing economies (Reinhart and Rogoff, 2009, p. 73).

- Severe banking crises dramatically weaken fiscal positions in both emerging and developed economies (Reinhart and Rogoff, 2008c, p. 1).

### 1.2.3 Defining sovereign risk

The term 'sovereign risk' is widely used and rarely specifically defined, and can include a broader or narrower range of specific risk factors, depending on the user and the context. Business practitioners often attribute to the term 'sovereign risk' a broad meaning, akin to 'country risk', representing the mix of all the risks involved in investing in or doing business with a particular country. Meanwhile, credit rating agencies use sovereign ratings to quantify a narrower concept of sovereign risk, and specifically the "credit risk of national governments"<sup>11</sup> (Standard and Poor's, 2008, p. 19). This is also the prevailing (albeit not unique) interpretation among financial market practitioners and policy-makers.

Thus, before progressing further, it is important to specify the definition of sovereign risk that will be used throughout this thesis. By 'sovereign risk' we mean the risk that a national government ('sovereign borrower') will default (i.e. will not repay its debts), a concept that can also be better specified as 'sovereign default risk' or 'sovereign credit risk', in line with the credit rating agencies use of the term.

The next step is to define more specifically what we mean by the term 'default' itself: this is particularly important given the specificities of sovereign borrowing in developed democracies. When a sovereign borrows in domestic currency, it can reduce the net

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<sup>11</sup> Standard and Poor's specifies the difference between "sovereign ratings" and "country ratings" as follows: "Sovereign ratings address the credit risk of national governments but not the aggregate of the specific risks involved in doing business within or from a particular country. Thus, sovereign ratings are not country ratings, and do not speak specifically to exchange-rate or regulatory risk or to any of a host of country characteristics that affect the operating and financial environment of a non-sovereign entity. However, sovereign ratings and country risk are highly correlated. Sovereigns with the highest ratings (the least sovereign risk) tend to be in countries with the least country risk, as evidenced by stable political systems, well-developed legal frameworks, and market-oriented economies." (2008, p. 19).

present value of its outstanding obligations in two key ways: either by ceasing to make interest and or/principal payments on its debt ('outright default'), or by eroding the value of the debt by creating inflation and depreciating the currency ('inflationary default'). As highlighted in Section 1.2.3, the option of monetising debt reduces the need to resort to 'outright default', but does not cancel it completely. Domestic currency denomination is typical for developed democracies, with the exception of Euro area countries.

In their analysis of domestic debt, Reinhart and Rogoff (2008b) make a clear distinction between "de-jure" or "overt" default on the one hand and inflation, hyperinflation or currency debasement on the other hand. In their survey and classification of financial crisis in the past eight centuries, they define sovereign default as "the failure of a government to meet a principal or interest payment on the due date (or within the specified grace period)" (Reinhart and Rogoff, 2009, p. 11). On the basis of this definition, they identify episodes of outright default ("debt crisis") as separate from episodes of inflation and currency crisis, while referring to default through debasement as "an old favourite" (p. 174).

The concept of "sovereign default" adopted by Reinhart and Rogoff corresponds to the definition employed by rating agencies. Indeed, it matches Standard and Poor's general definition of default: "the failure to meet a principal or interest payment on the due date (or within the specified grade period) contained in the original terms of a debt issue" (2008, p. 22). Standard and Poor's further clarifies that sovereign default includes "a sovereign's failure to service its debt as payments come due" as well as "distressed debt exchanges (even when no payment is missed)" (p. 21).

In this thesis, we follow the stricter definition of default used both by Reinhart and Rogoff and by credit rating agencies. The analysis of default risk as a separate issue from that of inflation risk puts us in the tradition of Alesina, De Broeck, Prati and Tabellini (1992) and of Lemmen and Goodhart (1999); both these papers make a distinction between sovereign credit risk and inflation (or exchange rate) risk components in their analysis of OECD government bond yields. For Euro area countries, where exchange rate risk differentials

have disappeared, bond spreads to Germany are generally considered to reflect outright default risk perceptions (see, for example, De Grauwe and Ji, 2012)<sup>12</sup>.

The focus on the stricter definition of sovereign default risk in this thesis allows us to concentrate on the analysis of the sovereign default decision, independent of the monetisation option, and therefore of the particular monetary setting of the country in question.

#### **1.2.4 Defining sovereign debt crisis**

Sovereign debt crises are rarely defined *per se*. Meanwhile, analyses of sovereign debt crises tend to be focussed on episodes involving outright sovereign defaults. This research project employs a broader definition of sovereign debt crisis, encompassing a broader set of episodes characterised by a sovereign's actual or perceived difficulty in servicing its debt and reflected in bond market turbulence. Pescatori and Amadou (2007) propose a similar approach for emerging markets, defining sovereign debt crises as "events occurring when either a country defaults or its bond spreads are above a critical threshold". In this broader definition, outright sovereign default as defined in section 1.2.3 is just one of the possible outcomes of a sovereign debt crisis. Alternative outcomes include various forms of rescheduling, external bail-out - including for example IMF loans -, as well as domestic measures such as freezing of bank deposits or public finances consolidation.

As shown in Reinhard and Rogoff (2009), sovereign debt crises can be considered a type of financial crisis. Other key types of financial crisis include banking crises and exchange rate crises (Reinhard and Rogoff, 2009, pp. 3-14). Importantly, Reinhardt and Rogoff (2009) find that a financial crisis can often be broken down into a sequence of sectoral crises, with banking and exchange rate crises typically proceeding sovereign debt crises (p.271), and sovereign debt crises in turn exacerbating banking crises. The 2008 global financial crisis

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<sup>12</sup> As for CDS spreads, here too other factors (including liquidity and overall risk aversion) may play a role in driving spreads, but, as we will see in more detail in later sections, they provide a reasonable approximation in most instances, with the advantage of being based on developments in the much more liquid and transparent government bond market. Measurement issues will be dealt with in more detail in Chapter 4.

also reflects this pattern, with banking crisis followed by sovereign debt crisis in a number of countries.

The empirical part of this thesis investigates the sovereign debt crises in Greece and Ireland, identified on the basis of government bond market turbulence, rather than on the basis of the fundamental source of the crisis. Indeed, while both Greece and Ireland suffered a government bond market run and required external assistance as market funding dried up, the sources of Greece's troubles can more clearly be linked to public finances mismanagement, while the Irish sovereign suffered from its intervention in what was originally a banking crisis. Still, both sovereign faced government bond market turbulence, as seen in both a sharp acceleration in bond yields in secondary markets (both in absolute terms and relative to Germany) and difficulty in raising market financing in primary markets.

Regarding more specifically the critical bond spread threshold for the identification of a sovereign debt crisis, this is likely to vary depending on the type of debt (emerging markets, Euro area, developed democracies) and be influenced by the particular circumstances of the event. Pescatori and Amadou (2007) estimate the spreads threshold for emerging market external debt at 1000 basis points over comparable US Treasury yields. This numerical threshold is not directly applicable to the much less volatile government bond markets of developed democracies and Euro area countries in particular. The behaviour of bond markets of during the Euro area sovereign debt crisis, suggest that two spread thresholds acted as discriminating levels for bond investors: 10-year bond spreads from Germany of about 300 basis points generated significant worries and accelerated sell-offs in government bond markets, while the 500 basis points mark represented a "point of no return" for sovereign debt crises.

### **1.3 SOVEREIGN RISK AND THE DEBT CRISIS IN THE EURO AREA**

In 2009-2012, the Euro area was in the eye of the storm when it came to sovereign risk re-discovery after the global financial crisis. The Euro area sovereign debt crisis represents the most dramatic expression of sovereign risk re-pricing in developed democracies in recent years. A higher degree of differentiation of the perceived intra-Euro area sovereign risk profiles initially emerged between late 2008 and early 2009, bringing intra-regional spreads

to levels not seen since the creation of the Economic and Monetary Union (EMU). The relatively moderate first phase of spread-widening turned into outright sovereign debt crisis in a number of countries in the following three years. Having started in a single member country, Greece, the sovereign debt crisis spread to a number of other sovereigns; it had such pervasive repercussions on regional economic, financial and policy landscape that it effectively came to be known as the “Euro area sovereign debt crisis” or even more broadly as the “Euro crisis”.

The increase in intra-EMU government bond spreads was all the more striking because it came after a long period of very low intra-regional differentiation, which had in turn challenged many earlier predictions. Bond markets overlooked intra-regional economic and structural differences for the first nine and a half years of EMU. With the crisis, investors were re-alerted to the differences remaining across national boundaries. The move looked like a belated recognition that not all EMU bonds can be considered ‘equal’ when it comes to default risk - particularly not when crisis strikes.

The next section (1.3.1) provides a brief outline of Euro area sovereign debt crisis as captured in bond market developments, Section 1.3.2 puts the crisis into a longer term perspective, and Section 1.3.3 highlights the peculiar features of sovereign debt in a monetary union.

### **1.3.1 The Euro area sovereign debt crisis**

A lot of ink (including the rest of this thesis) will probably flow to describe, dissect and analyse in the coming years the sovereign debt crisis, its sources and its consequences. In this section, our aim is much more modest: to provide a brief outline of the crisis as a general background for the analytical discussion in both this chapter and this study as a whole.

Intra-EMU government bond spreads and CDS spreads started widening moderately during 2008, reaching a local peak early in 2009. While this represented a first market attempt to differentiate among Euro area sovereigns, the move was modest compared with what was to come. The real crisis started at the end of 2009, when the Greek sovereign, with a history of elevated government debt and deficits, started to lose credibility in financial markets.

The consequence was the start of an uptrend in Greek borrowing costs which extended into the first part of 2010: in late April 2010, Greek ten-year bond-yields moved above 8%, and sovereign CDS prices implied a higher probability of default in Greece than anywhere else in the world, including Argentina and Venezuela.

Right from the start of the Greek debacle, the crisis raised some crucial policy dilemmas for European policymakers, which would impregnate and contribute to defining all the following stages of the Euro area crisis. This dilemma went to the core of the EMU institutional structure and the nature of the monetary union itself. The original EMU conception of monetary union without fiscal union, as expressed in the Maastricht Treaty, became increasingly untenable and gradually evolved towards a higher degree of burden-sharing.

In May 2010, the 110 billion euro bilateral bail-out of the Greek sovereign (including an IMF contribution) and the start of secondary market purchases of government bonds by the European Central Bank (ECB) were the first steps towards a progressive redefinition of the no-bail-out element of the monetary union. On that occasion, European policymakers also agreed to set up a common rescue facility, the European Financial Stability Facility (EFSF), backed by a system of guarantees by Euro area member states and aimed at ensuring financial assistance to EMU members facing difficulties. The EFSF was initially endowed with 440 billion euros of guarantees, although the actual lending capacity was to be around 250 billion euros, due to the complex guarantee structure put in place in order to obtain the AAA rating. The European Financial Stability Mechanism (EFSM), managed by the European Commission and available to all 27 EU member states, would also be available to contribute to future rescues, with an allocation of 60 billion euros.

In the second half of 2010 the sovereign debt crisis expanded from Greece to Ireland. The latter country had been battling a huge banking and real estate crisis since 2008, and these were increasingly weighing on public finances. In November 2011, Ireland accepted a 67.5 billion euro rescue package financed by funds from the EFSF, the EFSM, the International Monetary Fund (IMF) and bilateral contributions from the United Kingdom, Sweden and Denmark. An additional 17.5 billion euros came from Ireland's own National Pension Fund and treasury reserves.

Portugal was the third country to be affected by the sovereign debt crisis and to need external help. For a number of years, the country had suffered from falling competitiveness, troubled public finances and very low growth. Portugal tapped into the EFSF, the EFSM and the IMF for 78 billion euros in May 2011.

Each sovereign rescue operation was accompanied by strict conditionality: the disbursement of money required ongoing compliance with tough adjustment programmes. While Ireland and Portugal remained more or less on track with their programmes, Greece struggled to comply, and this resulted in ongoing uncertainty about the chances of success of the rescue measures.

The EFSF had initially been calibrated so as to be able to bail out the smaller peripheral economies, but would be insufficient to rescue the much larger Spanish economy, let alone Italy. As a result, the EFSF's firewall capacity was later ramped up. In July 2011, European leaders agreed to an increase in EFSF guaranteed capital to 780 billion euros. This implied an actual lending capacity of 440 billion euros; with IMF and EFSM contributions, the bail-out potential reached 750 billion euros. Then, in October 2011, the EFSF was allocated new instruments of action, including the possibility of intervening in primary and secondary markets, acting on the basis of precautionary programmes, and financing the recapitalisation of banks through loans to governments.

However, all this was insufficient to deter market fears of further crisis contagion to larger economies. Italian and Spanish government bond spreads widened sharply in the following few weeks, and the two countries faced intense market pressures for much of the second half of 2011 and the first half of 2012. Until then the sovereign debt crisis had affected only small, peripheral economies in the Euro area, but by threatening to topple the sovereigns of two large economies it assumed a much broader regional dimension.

Italy was in the eye of the storm in the second half of 2011. Italian ten-year government bond yields moved above 7% in November 2011. The country suffered from chronically high public debt, although the public sector deficit, and particularly the primary public sector balance, was at that time in much better shape than that of many other developed democracies. The turmoil in the sovereign debt market triggered the fall of Silvio Berlusconi's government and the creation of a technocratic government led by Mario



Monti, who set the country on a path of strict fiscal tightening and structural reform, contributing to calming market fears, at least for a while.

In the first half of 2012, doubts about the sustainability of the Spanish situation prevailed in bond markets. Spanish ten-year government bond yields increased throughout much of the first half of 2012 and crossed 7% line in June. The burden of bailing out the troubled banking sector, hit by a severe real estate crisis, was the main concern with regard to Spain. The country also suffered from prolonged recession and surging unemployment. Eventually, Spain was allocated a rescue package of approximately 100 billion euros, funded by the EFSF and specifically earmarked for bank recapitalisation.

Meanwhile, Greece's difficulties in complying with the consolidation requirements of the first bail-out package, generating an ever-growing funding gap, had come to a head in the autumn of 2011. In October 2011 European partners and the IMF organised a second rescue package, which was subsequently ratified in February 2012. The new package was worth 130 billion euros, and crucially required a restructuring of Greek sovereign liabilities as a condition for disbursement. The Greek debt restructuring took place in early March.

As Euro area policymakers adapted to face the evolving nature of the crisis, the EMU governance model saw additional institutional and 'philosophical' changes. At the end of 2010, the European Council agreed to the creation of a permanent rescue mechanism, the European Stability Mechanism (ESM), to replace the EFSF by the time of its expiry in 2013. As a counterpart to this, it was also decided to introduce a 'fiscal compact', in order to impose tougher controls on spending and borrowing, as well more severe sanctions. Amendments to the Lisbon Treaty were judged necessary to introduce a permanent rescue mechanism and more severe sanctions, and a new intergovernmental treaty was planned. Then, at the end of June 2012, the European Council moved in the direction of a banking union, with agreement on the creation of a single bank supervisor at the ECB, and the attribution to the ESM of the power to lend to banks directly once the new supervisor was in place.

The modus operandi and philosophy of the ECB also evolved significantly. Its bank liquidity provision increased significantly from the start of the global financial crisis and In December 2011 and February 2012, it carried out two unprecedented three-year long-term

refinancing operations (LTROs) that injected about a trillion euros into the European banking system. But the biggest step, relative to its previous stance, was the overture to buying government bonds in secondary markets, initially on a limited scale with the Securities Markets Programme (SMP) and then on a possibly much larger scale with Outright Monetary Transactions (OMTs)<sup>13</sup>.

At the time of writing it is unclear how much further the crisis will go and how it will finally affect the EMU, the EU and the economies and societies of member countries. What is clear is that, while strictly defined sovereign debt crises were so far concentrated in a restricted number of EMU member countries, all member countries were more or less directly affected, through their sovereigns, banks or real economies, as were the institutional structure and vision of the EMU and the EU themselves.

### **1.3.2 EMU bond spreads in a longer-term perspective**

The EMU sovereign debt crisis was all the more striking because intra-regional price differentiation among sovereign bond issuers had been extremely limited in the first nine years of monetary union. Underlying macroeconomic and structural differences among sovereign issuers appeared to have been ignored by markets for a number of years. Then, the financial crisis seemed to re-alert markets to the differences that remained across national boundaries, with extreme consequences in some cases.

Figure 1.3.2-1 illustrates developments in intra-EMU government bond spreads after the Maastricht Treaty entered into force in November 1993. The chart shows developments in EMU countries' ten-year government spreads to Germany<sup>14</sup>. During the 1990s, Euro area and global bond yields on average fell significantly; they subsequently stabilised at historically low levels. In the Euro area, the decline in average yields was accompanied by a

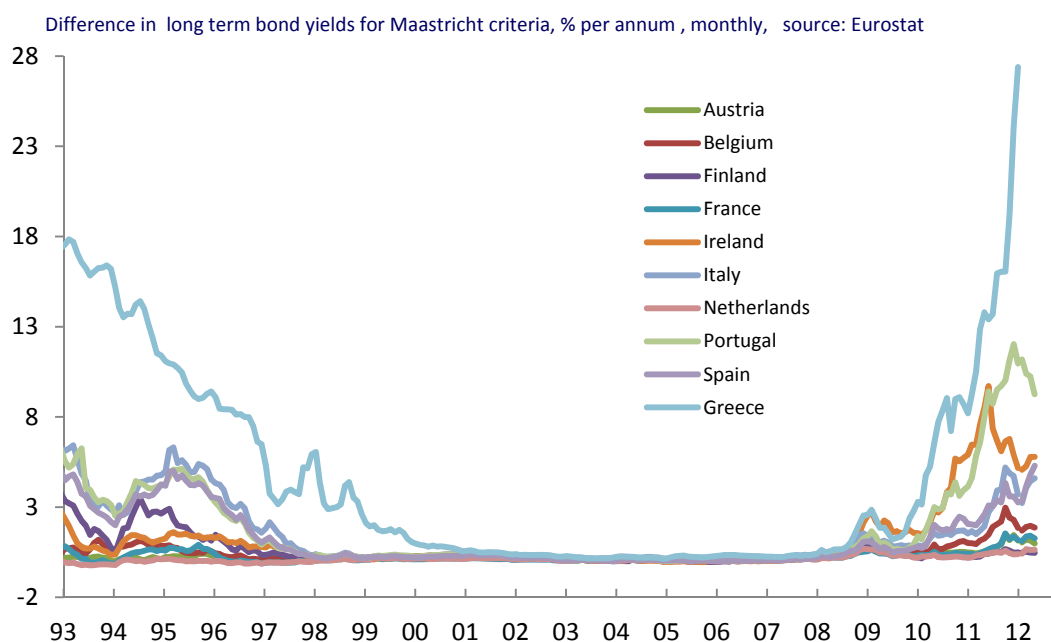
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<sup>13</sup> Albeit with conditionality attached and full sterilisation.

<sup>14</sup> Specifically we show data for the ten original members of the EMU (except Luxembourg), which entered the union in 1999, and for Greece, which entered in 2001. Excluding later entrants permits us to provide a homogeneous picture and avoid distortions that may be created by introducing later entrants and therefore varying structural convergence timings.

convergence in national yields towards the lower German levels. Yields dispersion increased again as a consequence of the 2007 financial crisis, with spreads reaching levels not seen since the mid-1990s, and subsequently going well beyond those levels in a number of cases.

**Figure 1.3.2-1 Euro area government bond spreads to German benchmark**



Overall, three macro-phases, characterised by distinctive medium-term trends, can be identified in the 20-year history of intra-EMU government bond spreads:

1. **Convergence:** Bond spreads among future EMU members fell dramatically during the 1990s, particularly in the second half of the decade. The standard deviation went from close to 3 in 1992 to little above zero in 1998. Average bond yields also fell markedly over the same period, from 9.7% on average in 1992 to 4.8% in 1998.

This 'convergence' phase can primarily be related to the nominal convergence efforts required for EMU entry and the markets' anticipation of EMU entry. The Maastricht Treaty required a nominal long-term interest rate not more than two percentage points higher than in the three member states with lowest inflation

(Maastricht Treaty, 1992). Bond-yield convergence was underpinned by inflation falling towards the levels achieved in the most virtuous countries and public budget deficit levels falling to below the 3% mark. Indeed, inflation convergence and budget deficit reduction were also part of the Maastricht criteria. While the EMU convergence process likely played the major role, this was part of a broader international preference for stability-oriented macroeconomic policies, characterised by fighting inflation and budget deficit reduction and clearly institutionalised by the diffusion of independent central banks. Indeed, the decline in bond yields was not purely an EMU phenomenon, but was reflected in other advanced economies, including the US, the UK, Canada, Sweden and New Zealand.

**2. Moderation:** Intra-EU bond spreads fell further in the first few years of EMU: the standard deviation of ten-year government bond yields for the same group of countries averaged a mere 0.1 between 1999 and 2007, falling as low as 0.06 on average in 2003 and 2004. Average yields remained low by historical comparisons, averaging 4.4% between 1999 and 2007 and fluctuating between a minimum of 3.1% and a maximum of 5.7%.

These developments seemed to contradict the majority of academic predictions – for example those of Buiters et al. (1993) and of Lemmen and Goodhart (1999) - that the fading currency risk premium would at least to some extent be replaced by an increase in default risk premium, a key prior of the ‘market disciplining hypothesis’. In the first few years of EMU, there was indeed some ‘real convergence’ in a number of national economies, but the degree of convergence was not homogeneous and in some cases the macro convergence trend started to be reversed soon after the union was created. Indeed, it was in this period that current account imbalances started to appear, and that public finance figures resumed their deterioration in a number of countries after the effort to comply with the Maastricht criteria. As for the convergence phase, the international backdrop also contributed to the moderation, as this period coincided with a

broader global 'great moderation'<sup>15</sup> in bond yields and credit spreads and with overall exceptionally low global risk premia. As abundant savings chased investment opportunities, the return required for bearing ever-increasing risk declined. As a result, spread compression was a generalised feature of financial markets in the first part of the decade<sup>16</sup>.

**3. Divergence and Crisis:** In 2008, intra-EMU bond spreads started widening again. In 2010-2011 they increased dramatically, with a few countries experiencing outright sovereign debt crisis and spreads reaching in some cases levels not seen since the early 1990s. In 2010, the sovereign debt crisis started in Greece and subsequently hit Ireland, forcing both countries to request external aid; in early 2011 it was the turn of Portugal, while in the second half of the year Italy's and Spain's bond markets suffered from contagion and the increase in bond spreads broadened to larger set of countries.

The moderate spread widening in 2008-2009 accompanied a sharp increase in global risks aversion driven by the global financial crisis. The sudden surge in risk aversion (and in the perceived riskiness of most financial assets) led to a sharp widening in credit spreads across private and public credit markets at the global level, as markets made a stronger effort to differentiate between good and bad creditors and run to 'safe assets'. Meanwhile, the dramatic move in 2010-2011 was more clearly 'home-grown' and turned into a sprawling sovereign debt crisis for the region. Investors' increased differentiation among Euro area sovereign issuers in this phase appeared to validate the theoretical prediction that heightened attention to default risk would replace currency risk concerns in the EMU. To be sure, the move in yields included a response to a significant deterioration in fiscal prospects for the countries in question and a related increase in concerns about long-term debt sustainability; however, the reasons for the timing of the move, the

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<sup>15</sup> The term 'great moderation' was initially coined with reference to the business cycle (Stock and Watson, 2002, p. 162), but it was subsequently applied also to describe developments in interest rates (for example, in Bianchi, Mumtaz and Surico, 2009).

<sup>16</sup> A detailed review of academic predictions of EMU bond spreads in the 1990s and explanation of the convergence in the early years of EMU is provided in Chapter 2, Section 2.4.

magnitude of the crisis, and the extent and consequences of cross-country contagion are currently an issue of debate among academics.

### **1.3.3 Sovereign risk and monetary union**

The debt issued by Euro area governments shares numerous features with the debt of other developed democracies, including the back-up of stable and generally well-developed institutional frameworks and of relatively advanced economic systems. However, the nature of the debt issued by Euro area member states is also influenced by their membership of the monetary union and its governance structure. When Euro area countries joined the monetary union, member governments lost the option, available to sovereign borrowers in stand-alone developed democracies, of unilaterally monetising their debt. So, while stand-alone developed democracies issue debt in domestic currency – where they are in full control of central bank policy – Euro area governments issue debt in a currency, the euro, over which they lack direct control. This is a feature that Euro area sovereign debt has in common with foreign-currency-denominated sovereign debt, issued mostly by emerging markets, and with the debt of sub-national governments in federal states.

The loss of the monetisation option increases the risk that a sovereign will have to resort to outright default in the face of fiscal and economic hardship (Reinhart and Rogoff, 2009; Lemmen and Goodhart, 1999)<sup>17</sup>. Interestingly, the higher outright default risk embedded in EMU countries' debt was reflected in their credit-rating structure when the monetary union was created. Up to 1998, all 11 of the prospective EMU member countries enjoyed an AAA (or equivalent) rating. When EMU entry was finally confirmed, Standard and Poor's and the other major rating agencies merged the domestic and foreign currency ratings of member countries<sup>18</sup>. As a result, a broader dispersion emerged in the ratings of the 11 EMU

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<sup>17</sup> De Grauwe (2012) also argues that the lack of a last resort authority makes monetary union countries "vulnerable to self-fulfilling movements of distrust that set in motion a devilish interaction between liquidity and solvency crisis..."(p. 265), while this is avoided in stand-alone countries.

<sup>18</sup> According to Standard and Poors' (2008), local currency ratings for stand-alone sovereigns are typically one or three notches above foreign currency ratings, with the difference mostly due to "monetary flexibility".

entrants<sup>19</sup>. On Standard and Poor's scale, the new ratings went from AA- for Portugal to AAA for Germany, France, the Netherlands and Luxembourg<sup>20</sup>.

The recognition of increased outright default risk should lead rational investors to require higher default risk premia for monetary union bonds than for domestic-currency-denominated bonds issued by stand-alone sovereigns, other things being equal. Moreover, it should lead to increased differentiation in the sovereign risk premia required from sovereign borrowers within the monetary union itself, reflecting different domestic fundamentals. This is generally found to be the case, for example, among sub-national government borrowers in the United States (Bayoumi, Goldstein and Woglom, 1995).

The other side of the coin is that the 'club membership' feature of belonging to a monetary union could increase the likelihood of a country in difficulty receiving some form of rescue from partner countries. The incentives for cross-country bail-outs would likely be higher in a monetary union than for stand-alone countries, due to greater default externalities as well as possible solidarity among partners. However, the actual probability of a bail-out would depend on the institutional structure in place as well as on the incentives to comply with such a structure.

Thus, in a rational market, the default risk premium on monetary union government bonds relative to stand-alone economies, as well the degree of differentiation among member states, would decline to the extent that the probability of a bail-out increased, and therefore depend also on the presence of burden-sharing institutions. Consistent with this, the evidence from national monetary unions suggests that default risk premia and differentiation according to fiscal performance are lower in sub-national entities that receive fiscal transfers in the context of solidarity schemes or are eligible for bail-out by the

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<sup>19</sup> While rating agencies recognised the changing nature of Euro area debt quite promptly, their performance in assessing the magnitude of intra-regional risk differentials in later years was much less laudable in many respects. The European Parliament (2011), for example, finds that rating agencies were often "behind the curve" (that is, slower than actual government bond markets), and "have not consistently met the expectations placed on them by investors and policymakers".

<sup>20</sup> Source: Bloomberg data.

federal government: examples of this are found in Germany and Canada (Schuknecht, von Hagen and Wolswijk, 2008).

The EMU was originally designed as a monetary union with no fiscal transfers and no bail-outs. As a result, the dominant prediction was that default risk premia would become more differentiated within the EMU (Alesina et al., 1992; Lemmen and Goodhart, 1999); this was, however, crucially dependent on the credibility of the no-bail-out clause. Meanwhile, fiscal rules (particularly the Stability and Growth Pact) were designed to ensure that member states would not live beyond their means<sup>21</sup>.

As seen in Section 1.3.2, in the first few years of EMU, intra-regional bond spreads fell to very low levels and there was no clear evidence of significantly higher differentiation in default risk premia (Buiters and Sibert, 2006). In spite of considerable research efforts, it remained unclear whether this was mainly due to low credibility of the no-bail-out clause, high credibility of the fiscal rules and real convergence efforts, technical factors such as the ECB collateral policy, deeper and more integrated financial markets, or exogenous factors such as a generalised global increase in risk appetite.

Eventually, the Euro area entered the sovereign debt crisis with no burden-sharing or lender of last resort arrangement in place, and at a time when the credibility of the Stability and Growth Pact had been shattered by repeated violations that went unpunished. As the crisis unfolded over the following three years, institutional arrangements and policymaker attitudes evolved, as described in Section 1.3.1. Innovations included the creation of joint rescue facilities (the EFSF/ESM) and the ECB becoming increasingly relaxed, first in terms of bank liquidity provision and then in terms of government bond purchases in secondary markets. Additionally, the fiscal rules were toughened and fiscal and macroeconomic coordination and surveillance systems were reinforced.

The theoretical counterpart of an increase in credit risk premia in a monetary union is that differentials in currency risk disappear as the monetary framework is unified (Alesina et al., 1992; Lemmen and Goodhart, 1999). This prediction, in turn, is crucially dependent on the

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<sup>21</sup> The original EMU structure and the literature related to intra-regional bond spreads are covered in detail in Chapter 2.



credibility of the monetary union itself. If investors start to fear that the union may break up or that one member country may exit, they may factor some currency risk differentials back into government bond yields. While in the first decade of EMU differences in exchange rate risk premia were generally thought to have disappeared from regional bond markets (Codogno et al., 2003), in summer 2012 ECB President Draghi hinted at the return of a premium related to “fears of the reversibility of the euro” in some government bond markets (ECB, 2012).

A final point worth making in this context concerns the prevailing analytical treatment of the euro as a ‘foreign’ currency from the perspective of Euro area sovereign bond issuers, as for example mentioned by Mosley (2003). We would argue instead that the euro should be considered a ‘negotiated’ currency. True, individual member states do not have full and direct control of monetary policy as in stand-alone economies. However, they are not as completely excluded from the decision process as countries issuing in outright foreign currency would be. The economic and financial conditions of EMU member states do have an influence on the decisions of the ECB, although this influence tends to be related to the size of the country, given that the central bank is required to act in the interests of the region as a whole and that a larger country tends by definition to have a higher influence on the aggregate. Moreover, the independence of the ECB from political influences may not be as absolute in periods of extreme distress, particularly when the survival of the EMU itself is put into question, as in normal times. Recognising that the euro may be a ‘negotiated’ currency also implies that the relative size and political influence of each member state may affect the way in which area-wide authorities, and in particular the ECB, will react to episodes of stress in different member countries.

## **1.4 FOCUS OF THE RESEARCH PROJECT**

### **1.4.1 Towards a political economy approach to sovereign risk perceptions**

The unfolding of the Euro area sovereign debt crisis, and broadly the re-emergence of sovereign risk as an issue for the region’s economies, provided the empirical inspiration for our research project.

In the academic literature, sovereign risk perceptions have been analysed from numerous different perspectives and within the context of different disciplines, including economics, finance, international political economy and international relations. Equivalent concepts are sometimes given different names according to the branch of literature concerned, but in reality they represent essentially the same issue approached from different angles. Thus, in the international political economy literature, we find an important group of authors concerned with the analysis of the constraints imposed on sovereign borrowers and their policies by internationally mobile global capital. In another branch of the international political economy and economic history literature, we find authors looking at the “credibility” of sovereign borrowers in financial markets. In the economics and European political economy literature, we find authors studying financial markets “disciplining” role on government borrowers. Finally, the finance literature refers more directly to the market pricing of bond spreads and the various components driving these.

Our research project was explicitly designed to reflect the breadth of these approaches and denominations, drawing from each of them as necessary to add value to the analysis, rather than being constrained by the ‘silos’ created by the separation of academic disciplines.

Moreover, a review of the literature on sovereign risk perceptions reinforced the motivation for choosing to focus on developed democracies rather than on emerging markets<sup>22</sup>. The existing studies were highly concentrated on emerging markets, while sovereign risk perceptions in developed democracies, and Euro area countries in particular, had been investigated much less. The finance literature produced quantitative and technical studies of the determinants of bond yields in advanced economies, but these were generally concerned with factors other than credit risk (interest rate risk, liquidity risk, international risk aversion). A few studies looking at the evolution of Euro area government bond yields before and after the creation of the monetary union had engaged with issues of credit risk, but these left many questions open, partly because of the young and evolving nature of the monetary union. Meanwhile, the economics and political economy literature had generally analysed sovereign risk perceptions within the context of emerging markets. Overall, sovereign risk perceptions in developed democracies in general and in the Euro

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<sup>22</sup> Chapter 2 covers the literature review in detail.

area in particular emerged both as an insufficiently studied phenomenon and as a highly relevant theme for both positive and normative purposes.

Sovereign risk and sovereign debt crisis are very complex phenomena, spanning economic, financial, political and behavioural domains. As Reinhart and Rogoff put it: “countries do not go broke in the same sense that a firm or company might” (2009, p. 51). So, once we had ascertained the relevance and interest of the study of sovereign risk perceptions in developed democracies and in the Euro area in particular, the next step was to identify which specific aspect of the issue to investigate in this thesis.

In order to do this, we considered the essential nature of sovereign risk itself and asked ourselves: what is it that specifically identifies sovereign risk and differentiates it from other forms of credit risk? We found the answer in the seminal paper on the study of sovereign debt itself, in the international economics field, by Eaton et al. (1986). Eminent economists here highlight its political nature as the defining feature of sovereign debt. In contrast to private debtors, sovereign borrowers cannot be coerced to make good on their commitments, due to the lack of enforcement mechanisms. So, they argue, for a sovereign borrower, “willingness to pay” can determine default decisions long before its “ability to pay” becomes binding. Reinhart and Rogoff also find that “most country defaults happen long before a nation literally runs out of resources” (2009, p. 51). Thus, sovereign default is essentially a political decision rather than a purely economic determination, implying that government creditworthiness, or sovereign risk, needs to be assessed on political at least as much as on economic grounds.

Subsequently, we contrasted these fundamental arguments on the nature of sovereign debt with actual academic studies of sovereign risk pricing in financial markets. In so doing, we found a clear disconnect between the theoretically recognised importance of political factors in the determination of sovereign creditworthiness and the relatively limited room afforded to political factors by the empirical literature on sovereign risk. Caouette, Altman and Narayanan (2001) argue that the lack of inclusion of political and political economy variables in traditional approaches to sovereign risk analysis is due to the greater difficulty of measuring these.

Moreover, we found that the vast majority of studies looking at the role of political factors in driving sovereign risk perceptions were specifically focused on emerging markets, a finding consistent with the greater focus on emerging markets in sovereign risk analysis overall. A branch of the literature had focussed on the role of political institutions in early Modern Europe. However, only limited analysis had been applied to contemporary developed democracies, either within or outside the Euro area. The existing literature relating political factors to financial market performance focuses on political processes, such as elections, referenda, cabinet formation, rather than on institutional and societal factors (see, for example, Bernhard and Leblang, 2006b). The growing body of literature on Euro area government bond spreads does not engage with the role of political factors.

In the international political economy field, Mosley (2003) provides a comprehensive empirical analysis of interest rates on government bonds across the world, relying on a strong distinction between developed democracies and emerging markets. In her study of bond markets between 1981 and 1997, she found that, while investors in emerging markets consider a broad set of variables, including political factors, when pricing sovereign debt, investors in developed democracies focus on a limited number of macro short-cuts to inform their country choices, with minor interest in the direct observation of political factors<sup>23</sup>. Mosley's arguments were based on time-dependent empirical evidence gathered in a specific historical period. Thus, her findings do not rule out the possibility that political and political economy factors may indeed be found to matter in investor choices in developed democracies in different institutional and historical circumstances, and particularly in episodes of fiscal stress.

As a matter of fact, preliminary evidence from the unfolding of the Euro area sovereign debt crisis indicated a possible role for factors beyond the handful of macro-variables identified in the 1990s, including political aspects. Overall, our preliminary analysis revealed the role of political economy factors in determining sovereign risk perceptions,

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<sup>23</sup> Mosley uses quantitative analysis to test for the role of both political elections and the partisanship of the country's leadership and finds that both have very limited or no impact on the pricing of government bonds in developed democracies (including future EMU members). She confirms the irrelevance of political factors through interviews with bond market investors. She identifies instead a clear role for a few macro-short cuts, in particular inflation, the current account balance, and the public sector balance (in order of importance).

from the perspective of the developed democracies of the Euro area, as a potentially important and academically under-studied issue.

### **1.4.2 Domestic and international political aspects of sovereign risk**

In order to identify the nature of the political and political economy factors that may be expected to influence sovereign risk perceptions, we dissected the components of the sovereign default decision itself, that is, the political decision faced by a sovereign when it encounters difficulties in servicing and repaying its debts.

When facing a fiscal sustainability problem, a sovereign borrower has essentially three policy options: default, consolidation, or external bail-out<sup>24</sup>. Each of these options has different distributional implications, hitting government constituents and bondholders in different ways. We can identify in a stylised way the main distributional implications for each of the three options.

Debt default will hurt bondholders, which can be domestic constituents or external lenders. Meanwhile it will relieve domestic taxpayers and public spending beneficiaries of at least part of the debt burden, depending on the magnitude and features of the actual debt restructuring.

Fiscal consolidation will benefit domestic and foreign bondholders, which will enjoy the ongoing creditworthiness of the sovereign. Meanwhile, it will hurt domestic taxpayers and public spending beneficiaries, as the government will need to increase taxes and cut spending in order to restore debt sustainability through fiscal adjustments. The adjustments required to achieve sustainability are often large, long and painful.

External bail-out will benefit bondholders, domestic and foreign. Evidently, it will also add a burden to the external rescuer, be this an individual sovereign or an international

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<sup>24</sup> Buiter (2010) provides an overview of policy options available to advanced industrial countries facing fiscal difficulties. As mentioned in Sections 1.2.3 and 1.3.3, a fourth option exists for governments that issue debt in domestic currency: debt monetisation. As explained in Sections 1.2.3 and 1.3.3, debt monetisation is outside the scope of our research project.

institution re-grouping the funds of multiple sovereign lenders. The impact on domestic taxpayers and public spending beneficiaries will depend on the toughness of the conditionality attached to the external rescue. Normally, the domestic taxpayers and users of public services should be better off than in the case of pure domestic consolidation, but worse off than in the case of outright debt default.

Of course, the political trade-offs described above are summary stylisations, while the reality of winners and losers can be much more complex. For example, debt default may in fact end by hurting domestic taxpayers and public spending beneficiaries, in a second instance, if the sovereign is not in a financially autonomous position (that is, if it does not have a primary surplus) and it loses access to external financing as a consequence of the default.

That said, it is evident that major political trade-offs emerge when a sovereign needs to restore fiscal sustainability. In 'good times', the political element of sovereign debt may fall into the background; meanwhile, in 'bad times', the political dynamic takes centre stage, as decisions need to be made concerning the group that bears the inevitable losses. These points find broader resonance in Gourevitch's *Politics in Hard Times*, where the author remarks: "Prosperity blurs a truth that hard times make clearer: the choice made among conflicting policy proposals emerges out of politics" (1986, p. 17). The default of a government has important distributional consequences, and as such its likelihood cannot appropriately be assessed in abstraction from the political sphere.

In the case of the EMU, the political dimension potentially assumes additional importance and displays significant ramifications across domestic and international layers of government. Indeed, given the high risk of spillovers and contagion across EMU members, as well as fears that a sovereign default may eventually lead to EMU exit, issues related to sovereign creditworthiness go well beyond the boundaries of national policymaking, reaching to the heart of the monetary union's governance infrastructure. In the Euro area, the political decision really happens on two levels: first at the national level, and second at the EMU level. Indeed, in the face of a material risk of default by a member country, EMU partners face the decision of whether to bear the cost of a bail-out of the country in question, or to suffer the possible spillovers that the default of a member country would

imply for other members or for EMU (or even for the EU project) as a whole. As a result, the government default decision becomes a ‘two-level’ political decision<sup>25</sup>.

Before the Euro area sovereign debt crisis, the economics literature generally assumed that the rules set by the Maastricht Treaty would be entirely credible and that would not be the object of revision or reinterpretation. In so doing, they clearly underestimated the role of political negotiations in the default decision, and particularly the fact that new political decisions can always overturn earlier ones. In the event, governments did not appear to have “tied their hands” (Giavazzi and Pagano, 1988) sufficiently tightly, as the various forms of rescues and rescue mechanisms were eventually put in place to avoid even more serious consequences from the debt crisis.

Overall, from the described conception of the sovereign default decision, two separate sets of political and political economy factors can be anticipated to have an impact on sovereign risk perceptions. First we have domestic national political and political economy factors: the potential relevance of these factors derives from the trade-offs generated by the sovereign default decision at the domestic level. Second, we have international political and political economy factors: the potential relevance of these factors derives from the trade-offs originating in the relationship with external creditors and rescuers.

To conclude, the described mix of empirical observations and theoretical deductions led to the overarching hypothesis of this thesis, that politics matters for sovereign risk pricing in developed democracies, as well as to the identification of a broad subject requiring further investigation: the political determinants of sovereign risk perceptions in developed democracies. Moreover, it led to the definition of the more specific research question that animates this project: how did the domestic and international political economy impact sovereign risk perceptions in the countries hit by the Euro area sovereign debt crisis<sup>26</sup>?

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<sup>25</sup>In the original EMU institutional framework, the default decision could have been considered as a de facto ‘two-level’ political decision, as the EMU institutional structure called in reality for strict fiscal independence. However, as the debt crisis unfolded, new rescue mechanisms were created, as well as new systems for overseeing centrally the actions of domestic policy makers. This gradually increased the de-jure element of the ‘two-level’ political decision.

<sup>26</sup> Section 1.1.1 summarises the key answers that derive from the analysis in this thesis.

## 1.5 DESIGN OF THE RESEARCH PROJECT

Having defined the focus of the research project in Section 1.4, Section 1.5 tackles the design of the research project itself. Section 1.5.1 introduces the overall research strategy, while Section 1.5.2 explains the methodology choice for the empirical tests and the selection of the Greek and the Irish event studies respectively. Section 1.6 concludes by presenting the detailed chapter structure of the thesis.

### 1.5.1 Research strategy

Our research project is developed in two key parts: first, the theoretical part aimed at defining an international political economy framework for the analysis of sovereign risk perceptions in developed democracies that can be applied to Euro area countries<sup>27</sup>; second, the empirical part, where the theoretical framework is operationalised and tested through the investigation of the Greek and Irish sovereign debt crises.

In the theoretical part of the research, we develop hypotheses concerning the domestic and international political economy factors influencing sovereign risk perceptions in developed democracies. In addition, we propose a dynamic approach to financial market behaviour, in order to explain the transition of investors' focus from the few-macro shortcuts identified by Mosley (2003) to a wider set of variables during the Euro area sovereign debt crisis. As a result, our international political economy framework is based on three pillars: evolving investment analysis, a link between the veto-player constellation in the political system and sovereign risk perceptions, and a role for a country's international political economy position in influencing the sovereign's credibility in financial markets.

In the empirical part, we operationalise the identified theoretical concepts into empirical objects, and test the theoretical hypotheses against the empirical experience. First, we identify ten-year government bond spreads to Germany as the main metric for the dependent variable in our project, sovereign risk perceptions in financial markets. Then,

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<sup>27</sup> This is as opposed to the traditional focus on emerging markets.



through the investigation of two event studies drawn from the broader Euro area crisis experience, the Greek and Irish sovereign debt crises, we look for empirical validation of our theoretical hypothesis<sup>28</sup>.

An important clarification of the broad research strategy concerns the choice of theoretical approach and how this relates to the empirical sample of the analysis. Our research question is specifically geared to analysing the Euro area countries hit by the sovereign debt crisis. Euro area countries represent the largest sub-set of the broader group of developed democracies, while at the same time presenting some features that differentiate them from stand-alone advanced economies. In particular, as highlighted in Sections 1.3.3 and 1.4.2, the government debt issued by Euro area member states is influenced by the particular EMU governance structure, which removes the option of unilateral debt monetisation and magnifies cross-country spillovers. It is thus useful to further clarify how the two categories of country relate to each other in the approach followed in this thesis.

In the light of the hybrid nature of Euro area sovereign debt, when considering the set of political economy factors that may be influential in determining sovereign credibility in the region, two types of approach are possible. First, one could focus on the peculiarities of the Euro area governance framework and how this affects risk perceptions vis-à-vis stand-alone developed democracies. This is the route chosen for example by De Grauwe (2012), highlighting the fragilities created by the EMU institutional framework. .

A different approach, which we follow in this thesis, is to engage with the academic literature and develop a theory with sufficient breadth to be potentially applied to the broader set of developed democracies, not only to EMU members. Indeed, our theory uses broader political and international political economy concepts rather than adopting a stricter European political economy approach, which would likely have resulted in stronger emphasis on specific Euro area governance features.

This approach has two advantages. First, it allows us to abstract from the specific EMU institutional setting, which has been in flux in the last three years. Indeed, the ongoing

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<sup>28</sup> Additional detail on the empirical methodology is provided in Section 1.5.2 and particularly in Chapter 4.

process of reform of EMU governance makes any consideration specifically related to this crucially time-dependent. Second, it generates a framework that could potentially be applicable to analysing a broader set of developed democracies hit by sovereign debt crisis in the future.

On the other hand, the downside of the chosen approach is that this thesis does not engage with the peculiar issues generated by the EMU and its institutional features. In this chapter, we have identified the particular features of Euro area sovereign debt and highlighted how the monetary union setting may have generated fragilities unique to Euro area countries which made them more vulnerable to sovereign debt crisis. However, the analysis of these particular sources of vulnerability is outside the scope of this thesis, as we are focussed on the impact of political factors on sovereign credibility in crisis episodes, rather than on the conditions themselves leading to the crisis.

Meanwhile, there are some distinct empirical advantages of focussing on Euro area countries. The common macro-policy framework and similar economic institutions greatly increase comparability and the likelihood of obtaining robust empirical results on the variables under analysis. More specifically, differences in monetary policy setting do not come into play in determining intra-regional yield differentials. In stand-alone developed democracies, domestic-currency debt denomination means that monetary factors tend to prevail in the determination of bond yields (as shown, for example, by De Grauwe and Ji, 2012). As a result, comparative analysis of non-EMU developed democracies often boils down to issues related to central banking, for example central bank independence. Looking, for example, at US or UK bond yields in the 2008-2012 period, it is hard to distinguish<sup>29</sup> how much of the decline in yields to record low levels was due to central banks buying large quantities of government bonds, rather than being a reflection of fundamental market views on the evolution of each government's fiscal soundness and long-term debt sustainability.

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<sup>29</sup> Arguably, one could look at credit default swap spreads in order to identify market perceptions of outright sovereign default risk, but, as we will see in more detail in Chapter 4, CDS spreads can be distorted by a number of factors, and US CDS spreads may be particularly unhelpful given the nature of the investor base. Thus, a focus on the Euro area has a clear measurement edge.

Looking at Euro area countries allows us to abstract from the debt monetisation option in the empirical analysis, as well as in the theoretical discussion, without the analysis being blurred by differences in the degree of fiscal dominance of monetary policy. Empirically, differences in sovereign risk perceptions across Euro area countries can be gauged directly by comparing government bond yields. In particular, government bond spreads to the German benchmark are generally considered mostly to reflect credit risk premia for Euro area sovereigns (De Grauwe and Ji, 2012).

### **1.5.2 Empirical methodology and event study selection**

The choice of the appropriate and most effective empirical method for this thesis required a careful consideration of the particular nature of the research project, which brings together political, economic and financial concepts<sup>30</sup>.

Traditional approaches to the analysis of sovereign risk in developed democracies, and the Euro area in particular, privileged a macro, quantitative approach. However, as Chapter 2 will show in more detail, the quantitative studies conducted so far have provided only partial answers and have mostly been unable to deal with political and political economy factors. In order to obviate the shortfalls of necessarily synthetic large-n quantitative studies, this project adopts a small-n approach, looking in detail at two sovereign debt crisis episodes. As a result, this research project differs from the existing literature on sovereign risk in developed democracies not only in terms of content, but also in its innovative empirical approach, focussed on event study analysis rather than large-n quantitative estimates.

In particular, we chose two event studies drawn from the broader experience of the Euro area sovereign debt crisis: those of the sovereign debt crises in Greece and in Ireland. Each event study was carried out in two parts. First, we identify the drivers of market perceptions of sovereign creditworthiness during the crisis by mapping ten-year government bond spreads with daily and intra-daily news. Second, we analyse developments in the light of our theoretical framework. In the analysis, we integrate

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<sup>30</sup> Section 1.5.2 provides an introductory overview of the empirical methodology, which will be discussed in more detail in Chapter 4.

comparative analysis between two event studies, with detailed event tracing within each episode, striving to identify causal mechanisms relating to dependent and independent variables, as well as relevant intermediate steps. Importantly, the event studies aim specifically to test our theoretical framework against the empirical reality. Meanwhile, we are not looking for a fully comprehensive analysis of the causes and consequences of the Euro area sovereign debt crisis, or to develop defined forecasts for the rest of the crisis.

Regarding event study selection, we aimed to maximise unit homogeneity, variability in the dependent variable under investigation, and variability in the independent variables. Both Greece and Ireland were hit by sovereign debt crisis in 2010 and needed to access external support. However, there were remarkable differences in their overall experience: while the sovereign debt crisis was clearly a dramatic event in both countries, its severity appeared significantly greater in Greece than in Ireland. These differences provide the required variation in our dependent variable.

Crucially, Greece and Ireland also differ in terms of our key explanatory variables (often being at opposite extremes on the Euro area spectrum), while at the same time displaying similar characteristics in residual areas. These features make a comparison between the two episodes both highly relevant in the light of our theory and appropriate from the methodological perspective<sup>31</sup>.

Greece has a low number of formal veto players, a high level of socio-political contestation, and a low level of economic and financial integration with the rest of the EMU and the global economy. In contrast, Ireland has a higher number of formal veto players, a low level of social-political contestation, and is highly integrated with the rest of the EMU and the global economy.

Meanwhile, the two countries have residual features that allow for an appropriate comparison and should minimise distortions in the analysis and consequent misattribution of causal relationships. They are both small economies within the Euro area, reducing the risk that differing outcomes may be related to differences in size. Size could be a major

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<sup>31</sup> This section highlights some key similarities and differences, which will be examined in detail in Chapter 4.

driver of the countries' influence on area-wide decision making processes, blurring the role of other factors. As they are both small, both Ireland and Greece tend to be 'policy takers' in the European (and global) context, including with regard to monetary policy. Moreover, they both had a prevalence of foreign bond ownership at the onset of the crisis<sup>32</sup> and did not present major differences in terms of bond market liquidity<sup>33</sup>.

Finally, we need to point out that studying the Euro area sovereign debt crisis as it happens has the added difficulty of dealing with an event unfolding at the time of writing. The Euro area sovereign debt crisis started in late 2009 and in mid-2012 it is unclear how much longer it will last, what additional manifestations it will take, and what its overall consequences will be. The focus of the detailed event tracing on a well defined phase of the crisis - covering events in 2009 and 2010 - ensures the coverage of episodes that can be considered complete in themselves rather than providing a possibly partial view of unfolding events and uncompleted episodes.

## 1.6 STRUCTURE OF THE THESIS

The structure of the thesis mirrors the design of the research project. The thesis is composed of seven chapters, each covering a specific step of the process. Chapter 1, the current chapter, introduces the research project, its motivation and structure. The key elements of each of the remaining chapters are as follows.

- Chapter 2 reviews a number of branches of the international political economy, international economics, political economy and economic history literature concerned with sovereign risk, sovereign debt and fiscal policy. This broad literature review serves to highlight the literature gap that our research project aims to contribute to filling. It also helps to identify the existing theories and empirical findings to be used as a starting point for our analysis. Finally, it allows us

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<sup>32</sup> This matters because domestic investors tend to be more patient than foreign investors. Hardie (2012) shows that different types of investor constrain government borrowing capacity in different ways, with their intolerance of higher debt levels positively correlated to their level of financialisation.

<sup>33</sup> This allows us to abstract from differences in liquidity risk.

to recast the sovereign risk problem as one requiring a political as well as economic approach.

- Chapter 3 develops the theoretical foundations of our research project, proposing an international political economy framework for analysing sovereign risk. The political economy framework is composed of three pillars: the first deals with financial market behaviour, the second focuses on the relationship between the domestic socio-political system and sovereign credibility in financial markets, and the third covers the connection between international proximity and sovereign risk premia.
- Chapter 4 translates the theoretical concepts identified in Chapter 3 into operational objects, in order to prepare the empirical tests. It introduces the empirical methodology, identifying the main metric for our key dependent variable and explaining the choice of the event study methodology as well as the specific episode selection. Finally, it introduces the Greek and Irish event studies to be analysed in the two successive chapters.
- Chapter 5 covers the Greek event study, which is made up of three parts. The first part maps political and economic events with fluctuations in government bond spreads in order to reconstruct a detailed narrative of the crisis. The second part analyses the events in light of the theoretical framework presented in Chapter 3, covering in sequence the role of the three pillars constituting the theory. The third part looks at the role of politics before 2008.
- Chapter 6 covers the Irish event study. It follows the same structure and criteria as are followed for the Greek event study in Chapter 5, with the addition of comparative remarks vis-à-vis the Greek episode.
- Chapter 7, the final chapter, draws the key conclusions of the thesis. It highlights the findings of the thesis, integrating the theoretical framework with the empirical findings from the two event studies. Subsequently, it highlights the key contributions to the literature, proposes an agenda for future research, and derives some policy lessons. Our final remarks conclude the thesis.

## Chapter 2

### *An interdisciplinary review of the literature*

#### 2.1 INTRODUCTION

In this chapter, we trace the key theoretical precedents of our approach to sovereign risk. A review of the key strands of literature relevant to our subject will lead us to identify the missing link to be investigated in subsequent chapters. In contrast to the dominant unidisciplinary approach, we broaden our review to studies from different disciplines, including international political economy, international relations, international economics, political economy, international finance and European political economy, in order to provide an integrated perspective on the issue.

In particular, our aim is to recast the issue of sovereign risk in developed democracies from a purely economic and financial to a multi-faceted problem involving political considerations as well as economic and financial fundamentals.

Our project falls within the literature aimed at understanding how financial markets assess governments. We can identify two main strands of literature engaged with the issue of market discipline, or market control, of national governments.

- The first strand belongs to the branch of international political economy anchored in this area of international finance and examines bond pricing mechanisms in order to identify the effects of financial globalization on national policy autonomy.

- The second strand of literature is mainly constituted of political economy and finance studies related to EMU construction, in particular studies related to the effects of monetary union on Euro area bond markets.

In this study, we aim to take a step forward and integrate the asset pricing literature with the insights from the broader literature on the international and domestic politics of sovereign risk and government deficits, particularly as applied to developed democracies, and especially to Euro area countries.

Thus, in this chapter, we start by reviewing the finance and political economy literature on the drivers of sovereign risk and government indebtedness, at both the international and the domestic levels. We highlight in particular how the international literature recognized at a very early stage that decisions relating to external sovereign debt have strong political connotations.

Then, we move on to see how scholars have so far explained moves in financial market perceptions of sovereign risk at the international level, particularly as reflected in asset prices. We look at empirical studies of emerging market bond spreads and sub-national government's risk premia in federal states and the international literature more directly concerned with the relationship between government policies and financial markets, particularly market assessment of government credit risk.

We then restrict our focus more specifically to the finance and political economy literature on intra-EMU bond spreads produced during the preparation for monetary union, as well as that related to the empirical evidence derived during the first decade of the EMU experience and the sovereign debt crisis.

After this review, we highlight a number of weaknesses in the relevant literature on market pricing of sovereign risk, particularly vis-a-vis the existing theories on the actual determinants of sovereign risk. In our approach, it is crucial to recognize that issues related to sovereign creditworthiness go beyond economic and financial aspects, reaching out to



the political sphere, as also recognized, for example, in Reinhart and Rogoff's empirical findings (2009)<sup>34</sup>.

## 2.2 THE POLITICAL ECONOMY OF SOVEREIGN RISK

Sovereign risk has been approached from a multitude of disciplines, including finance, economics and political science, generating a vast amount of academic material. The issue of outright sovereign default risk has typically been treated as predominantly related to emerging markets, a choice justified by the empirical evidence on the actual occurrence of outright sovereign defaults in the last thirty years. While typically applied mostly to emerging markets, the international analysis of sovereign creditworthiness is important in order to frame, justify and support the approach of our analysis, particularly in the light of the fact that EMU accession renews the saliency of outright sovereign default for advanced democracies<sup>35</sup>. In this section, we shall highlight the key features of this vast literature that are relevant for application to the asset pricing and political economy aspects of our research.

First, we look at the original models of sovereign risk, developed in the 1980s to explain the perceived paradox of sovereign creditworthiness in the external debt arena. Beginning with the first models, the role of politics in a sovereign default decision was highlighted as crucial. A debt default decision was typically analyzed in the context of the international sphere, with particular interest in the international incentives to repay sovereign debt.

We shall then move on to reviewing the literature concerned with the domestic drivers of a sovereign default decision. With a few exceptions, the treatment of an international default choice as a domestic political issue started to gain ground only recently. The models emerging in this sphere are often grounded in principles developed in the analysis of the

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<sup>34</sup> See Chapter 1 for more detail on this empirical contribution to the understanding of sovereign risk.

<sup>35</sup> Sections 1.2.1 and 1.2.2 highlight an important connection between banking crisis and sovereign debt crisis, in particular how credit risk transfer from banks to governments was an important explanation of the increase in actual and/or contingent liabilities of the public sector in advanced economies in 2008-2012, resulting in sovereign debt crisis in a number of cases. Sections 6.1 and 6.3.1 illustrate in more detail how the Irish sovereign debt crisis was a consequence of the financial crisis.

political drivers of government debt in developed democracies, which we shall also consider in some detail.

The literature reviewed in this section plays three key roles within the context of this thesis. First, it provides the theoretical foundations to our political economy approach to sovereign risk. Second, it introduces a key domestic political dimension (that is, the degree of concentration of political power) that will underpin the formation of theoretical hypothesis on the domestic political economy factors influencing sovereign risk perceptions in developed democracies, as well as the ensuing empirical analysis. Third, it highlights some essential features of international sovereign lending that will re-emerge from the theoretical and empirical analysis of the international political economy influences on sovereign risk premia.

### **2.2.1 International politics of sovereign risk**

Why should a sovereign government repay its foreign debts in the absence of supranational enforcement mechanisms? Two features distinguish sovereign debt from private debt: first and foremost, there is no supranational authority or rule to enforce repayment; and second, collateralization is practically impossible given the magnitudes involved and the political obstacles.

In the absence of enforcement mechanisms or collateral guarantees, Eaton et al. highlight the fact that “traditional concepts of solvency and liquidity are of little help in understanding problems of sovereign debt” (Eaton et al., 1986, p. 481). For a sovereign borrower, “willingness-to-pay” can determine default decisions long before its “ability-to-pay” becomes binding. Indeed, the worth of a country, including the value of all the assets owned by the nationals and the government of that country, is normally above that of the outstanding debt. What matters then is “the component of net worth that the government can (or is willing to) appropriate” (Eaton et al., 1986, p. 500). Thus, sovereign default is a political, more than an economic, decision and creditworthiness needs to be assessed on political, at least as much as economic, grounds.

So, how can foreign borrowing even exist? Most of the sovereign debt literature of the last thirty years has been devoted to answering this question. Scholarly interest in the issue of

sovereign risk developed hand-in-hand with the spreading of international debt to developing countries during the 1970s and 1980s and the resultant financial crisis. Since then, the academic literature has burgeoned into a large amount of material. Theoretical developments have spanned various disciplines, from finance to economics to international relations. Meanwhile, empirical studies have analyzed all the major emerging market crises of recent decades, as well as earlier experiences of sovereign borrowing and default dating back up to three centuries.

For almost thirty years, a sovereign default decision has been treated primarily as an issue pertaining to the international sphere. The two main dynamics identified to explain the sovereign debt “paradox” in international economics<sup>36</sup> closely reflect two key theories developed in international relations theory to explain how cooperation and credibility is sustained in an anarchic world:

- First, the theory of “repeat play”, where global leaders cooperate in order to ensure ongoing good relations
- And second, the theory of “issue linkage”, where behaviour in one sector is related to possible sanctions in another sector.

The “repeat play” theory of international relations becomes the so-called “reputational” explanation in international economics. In reputation-based models, sovereign borrowers want to maintain a “good credit” reputation over time since lenders can limit the future access of defaulting sovereign borrowers to international finance. The reputational explanation of sovereign solvency was first introduced by Eaton and Gersovitz (1981). Meanwhile, the “issue linkage” becomes the “trade sanctions” explanation, which was first introduced by Bulow and Rogoff (1989a). In trade-sanction models, retaliatory international trade sanctions are identified as the main deterrent to sovereign default.

Looking more closely at the history of sovereign debt theories, the seminal paper in the field is also the first to explicitly outline the foreign debt paradox (Eaton and Gersovitz, 1981). This paper makes the foreign debt paradox explicit and offers an explanation of the

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<sup>36</sup> How can sovereign debt even exist in the absence of enforcement mechanisms?

“repeat-play” reputational type. In Eaton and Gersovitz’s model, “reputation” is identified as the key incentive for sovereign actors to comply with their external debt obligations. Sovereigns need to maintain “good credit” reputations in order to preserve their access to international capital markets. Sovereign borrowing is treated as a “repeat play”, and a game theoretical approach is applied. In particular, Eaton and Gersovitz (1981) approximate private lending to sovereign borrowing, with a model involving an “endogenous default penalty”. In so doing they show that, even in the absence of legal or coercive enforcement mechanisms, markets can retaliate against defaulting governments by restricting their access to credit or increasing the cost of borrowing the next time the same government attempts to tap into international finance.

Eaton and Gersovitz’s initial paper started a fertile debate about the theoretical validity and empirical verifiability of the theory, as well as giving rise to a substantial body of literature on sovereign debt, sovereign risk and its various applications.

The first serious challengers to the reputational approach were Bulow and Rogoff (1989b). They argued that, for countries with sufficiently rich asset markets, the need to access foreign finance in the future is not a binding constraint. They show that, on the contrary, there will be a time when a country will choose to default and save the amount obtained, so as to replicate the payoffs of future debt contracts through investment in the asset market.

Another important weakness of the reputational approach has been attributed to the frailty of its underlying assumptions of “complete information” and “market efficiency”. Under the “complete information” assumption, lenders have all relevant information about borrowers, while, under the “efficient market hypothesis”, this information is efficiently incorporated into lending decisions or asset prices. Aggarwal, for example, argues against the full information assumption, suggesting that “modern bankers have made mistakes as a result of their unfamiliarity with the turbulent history of international lending” (1996). Meanwhile, behavioural finance arguments question the rationality of market behaviour, referring, for example, to episodes of “irrational exuberance”, where speculative investment decisions are made regardless of fundamental soundness.

To obviate some of these problems, Tomz (2007) proposes a “dynamic theory” of reputation, which relaxes the assumption of investors’ complete information concerning government preferences and introduces the consideration of investors’ evolving beliefs and political change. On the basis of the evidence from sovereign debt events across three centuries, he argues that past behaviour has an influence on the conditions of sovereign access to international finance and that investors’ beliefs are updated over time. Tomz introduces the concept of “contextual inference”, where borrowers are constantly reassessed on the basis of their behaviour in the particular circumstances they face, and their actions are classified as “faithful repayment”, “excusable defaults” or “inexcusable defaults”. The theory predicts “uncertainty premiums” for newcomers, “seasoning effects” for consistent payers, market “exclusion” for defaulters, and the possibility of “re-entry” if compensation is provided (Tomz, 2007, p. 39).

## **2.2.2 Domestic politics of sovereign risk**

The increasing recognition that external incentives to repay sovereign debt are “subtle” and “highly sensitive to the overall environment” (Eaton and Fernandez, 1995, p. 53) has opened the door to an analysis of the institutional and political determinants of creditworthiness at the domestic level - a younger area of analysis that is now gaining ground.

### **2.2.2.1 Political economy of sovereign default**

One broad line of debate at the domestic level is focused on whether the form of government (autocracy or democracy, parliamentary or presidential democracy, majoritarian or proportional representation) impacts the credibility of a sovereign’s commitment to repay or service its debts. An economic history study published in 1989 suggested that the political system could explain the differences in perceived creditworthiness between France and Britain in the early modern era (North and Weingast, 1989), since the checks imposed by the creditor-dominated Parliament on the British Monarch appeared to regulate the country’s borrowing habits and thus to dampen the likelihood of default, while the absolutist regime in France encouraged uncontrolled debt expansion. The debate on autocracies versus democracies continues, between those

arguing that the stability of autocratic leaders supports creditworthiness and those arguing instead that the checks and balances in democracies increase the likelihood of debt repayment.

Stasavage (2002, 2003) pushes the analysis further, using the same episode for a comparison of the credibility of France and England, as measured in the government bond markets. The author shows that, while limited government can indeed help to boost the credibility of a sovereign debtor, it is “neither a necessary nor a sufficient condition” for government commitment (Stasavage, 2002, p. 14). He stresses the importance of some additional factors in influencing the credibility of such a commitment: the structure of partisan interests, the possibility of cross-issue bargaining and the degree of bureaucratic delegation (Stasavage, 2002, 2003)

In-depth case studies of financial crisis episodes in emerging markets provide further insights into this area, identifying a role for domestic political factors as a trigger or magnifier of market moves. Through comparative analysis, MacIntyre (2001) identifies the degree of dispersion of political power as a key factor in the different levels of capital flight observed in Indonesia, Malaysia, the Philippines and Thailand on the back of the Asian financial crisis of 1997-98. With recourse to the “veto players” theory of Tsebelis (1995), he argues that excessive centralization or excessive fragmentation of power leads to a higher market perception of political risk in the event of a crisis. Meanwhile, Tomz (2002) suggests that the evolution of the 2001 crisis in Argentina was closely linked to the management of domestic public opinion; he links the default decision to the government’s desire to preserve its credibility vis-à-vis the domestic audience and maximize its chances of re-election.

Formal modelling of the effects of the democratic process on sovereign risk is a more recent development, but political economy models aiming to explain debt default choices are starting to take hold.

Amador (2003) builds a model showing that political uncertainty reduces a country’s ability to save, undermining Bulow and Rogoff’s critique of the reputational theory. In Amador’s model, the alternation of political parties in office generates “impatient” politicians, who are unwilling to save and thus more likely to be continuously demanding external funds.

The formal model reinforces earlier empirical findings that political instability increases the probability of default (for example Brewer and Rivoli, 1990, and Balkan, 1992).

Meanwhile, Alichì (2008) develops an overlapping-generations political economy model of sovereign debt. This shows democracies with a higher share of young voters as less likely to default, since older voters are less interested in the long-term reputation of their country. He argues that, in general, sovereign incentives to repay debt depend on the heterogeneities within a national economy.

Generally, this newer literature has its foundations in earlier political economy models explaining the impact of political and fiscal institutions on fiscal deficits and domestic government debt trends, usually developed with reference to advanced democracies (see next section for more detail). For example, Alesina and Tabellini (1990) used the concept of the “impatient” politician to explain the persistence of domestic deficits, while Tabellini (1991) used intergenerational arguments to assess the sustainability of domestic debt.

Another recent advance that underscores the importance of the domestic institutions in determining a country’s default probability is the “debt intolerance” hypothesis developed by Reinhart, Rogoff and Savastano (2003). These authors argue that in some cases emerging market sovereigns are unable to sustain even comparatively moderate levels of foreign debt, sometimes as low as 15-20% of GDP. They find that the ability of a country to sustain medium to high debt levels is related to that country’s record in maintaining its debt obligations and managing the macroeconomy. A history of domestic institutional shortcomings is identified as a key cause of “serial defaults”, and a country’s level of “debt intolerance” is operationally quantified as “the ratio of the long term average of its external debt to an index of default risk” (Reinhart et al., 2003 p. 4). Kolscheen (2007) investigates the institutional reasons for serial defaults and finds a role for constitutions, particularly the parliamentary versus presidential structure of a democracy. A related, albeit distinct, concept is that of “original sin”, defined as “the inability of economies to borrow abroad in their own currencies” (Eichengreen et al., 2003, p. 1), whose causes are often found to be similar to those related to serial default.

Developed democracies are normally considered to have “graduated” from histories of serial defaults, and can issue large amounts of debt in domestic currency. While the context

changes in this case from the international to mostly the national sphere, as for foreign debt, political considerations dwarf financial considerations when it comes to a default decision on domestic debt. However, with domestic debt, the apparent political paradox is reversed. At the international level, the question is: why should a sovereign repay its debt? At the national level, the question becomes: why would a “benevolent” government default on the debt held by its citizens? (Alesina et al., 1992). Economists see default as a possibly attractive option, in as much as it can be equated to a “non-distortionary lump-sum tax” substituting for numerous distortionary taxes levied to service the debt (Fischer, 1980). In reality, important political and political economic trade-offs come into play in a domestic debt default decision. Outright domestic debt default is less common than external debt default, but 68 cases have been identified since 1914 (Reinhart and Rogoff, 2008b).

### **2.2.2.2 Political economy of government debt**

When looking at developed democracies, academic analysis has typically focused on the determinants of government budget deficits and debt rather than on the drivers of outright sovereign default. The lower incidence of foreign currency borrowing markedly reduces the saliency of outright default decisions in advanced democracies that retain monetary sovereignty, as also shown by the absence of outright default episodes (as opposed to inflationary erosion of the debt) in recent decades. In developed democracies with monetary independence, where inflation creation is normally a more politically feasible alternative to reduce the debt, outright default is generally considered a remote eventuality. Thus, for a long period of time, the relative path of fiscal expansion and fiscal consolidation was more directly relevant than outright probabilities of default when looking at developed democracies. Moreover, as shown in the section above, the political economy models developed to explain government deficits can often be applied to the study of the domestic drivers of international default decisions, so the input from this area of the literature is significant for the analysis in our project.

The economic and political determinants of budget debts received considerable attention in the 1980s and early 1990s, when public debt levels in a number of industrial countries raised sustainability concerns. The normative theory of fiscal policy in the economics literature (for example Barro, 1979; Lucas and Stokey, 1983) was found to be insufficient to



explain debt developments in the preceding twenty years (Alesina and Tabellini, 1990). Thus, positive theories of government behaviour were formulated (De Haan and Zelhorst, 1993). Political factors were added to economic factors to explain government debt accumulation and fiscal consolidation (or lack thereof).

Two main lines of investigation prevail in this area:

- **Analysis of the impact of political processes on the economy and public finances within individual democracies.** The line of research on “political cycles” gave rise to two competing models of explanation: the opportunistic and the partisan models. The “opportunistic” model (Nordhaus, 1975; Rogoff and Sibert, 1988; Persson and Tabellini, 1990) assumes that politicians act to maximize their chances of re-election, which normally results in expansionary fiscal policies ahead of elections. Meanwhile, the “partisan” model (Hibbs, 1977; Alesina, 1987) assumes that politicians act according to partisan preferences: left-of-centre parties prioritize employment creation over inflation control; right-of-centre parties have the opposite inclination. These models were normally developed with application to the US political system, and have delivered mixed results in empirical tests across reference countries and time periods, suggesting that reality may be determined by complex interactions of different factors rather than being explained by an individual model (Alesina and Roubini, 1997).
- **Analysis of the impact of different political institutions on government deficits across democracies.** In this area of analysis, authors are more directly concerned with how differing political institutions explain different patterns of deficit and debt in developed democracies with similar macroeconomic features.

The results of the latter line of investigation provide the most relevant inputs for the present research. The experience with debt accumulation up to the mid-1970s and the subsequent unequal pace of consolidation in the late 1970s and the 1980s spurred academic interest in the reasons why we find large deficits in some countries and not in others? (Alesina and Roubini, 1997). The different debt paths experienced by developed democracies with similar macroeconomic fundamentals could not be adequately explained by pure economics models, where governments are treated as “monolithic entities ... that

have full control of the policy instruments and that manage them according to a stable and well-defined objective function” (Roubini and Sachs, 1989, p. 905).

A seminal paper in this area was Roubini and Sachs’ “Political and Economic Determinants of Budget Deficits in the Industrial Democracies”, where the authors set out to analyse the “role of alternative political institutions in mediating the effects of political conflict on budgetary outcomes” (Roubini and Sachs, 1989, p. 905). The paper investigates the role that the composition and stability of governments play in determining budget deficits beyond the results offered by the “equilibrium” approach of the hardly politically realistic “tax-smoothing” hypothesis, which in turn assumes that governments choose taxes to minimize the present discounted value of the deadweight burden of taxation (Barro, 1979; Lucas and Stokey, 1983).

Roubini and Sachs’ empirical analysis of OECD member countries shows that the degree of cohesion of government structures influences fiscal policy, identifying a positive correlation between the degree of government cohesion and the debt consolidation path across OECD economies in the late 1970s and the 1980s. They observe that major differences in debt trends emerged after the major oil shocks of the mid-1970s, and argue that, while fragmented governments do not necessarily create high deficits, they are less apt at consolidating public finances in the aftermath of a shock, since they delay fiscal adjustment (Roubini and Sachs, 1989).

Meanwhile, Alesina and Perotti (1995, 1996) assess various political economy explanations of budget deficits and find that the structure of the party system (coalition or single-party government) is the most powerful factor in explaining cross-country deficit variance, along with the structure of budgetary institutions. Two-party systems, typically generated by majoritarian electoral laws, are found to be better at consolidating public finances than coalition governments, typically generated by proportional electoral systems.

Alesina and Roubini (1997) take the analysis a step further, arguing that the party system also influences the nature of the political cycle. Two-party governments emphasize partisan cycles. Meanwhile coalition governments bring more stability, but also slower reaction to shocks and possible deadlock in policy-making. As a result, they argue, “single-party governments are better suited to enforce fiscal discipline relative to coalition governments”

(Alesina and Roubini, 1997, p. 247). Consistent with this, Persson and Tabellini (2003) find a statistically robust relationship between majoritarian electoral rules and smaller public deficits. Some researchers dispute the findings described: for example, de Haan and Sturm (1997) find that Roubini and Sachs' government dispersion concept does not help to explain debt growth and the level of government spending. Nonetheless, an extensive cross-country empirical test of the major political economy theories carried out by Franzese (2002) shows that "fractionalized governments do retard fiscal adjustment", although the majoritarian versus proportional distinction does not seem to matter *per se*. With his regression analysis, Franzese quantifies the impact of government "fractionalization", identified as the number of "partisan veto actors", on public debt trends, showing that "veto actors induce inaction", which in turn prevents fiscal consolidation in countries facing high public debt levels (2002).

Finally, the "war of attrition" model was developed by Alesina and Drazen (1991) to explain delayed fiscal consolidations. In this model, stabilizations with serious distributional implications generate conflicts among social groups as each group tries to shift the burden onto other groups. The difficulty in reaching a collective decision generates a political stalemate, which in turn delays fiscal adjustment. Spolaore (1993) extended the "war of attrition model" to the case of coalition governments, showing that struggles between coalition partners who disagree on policies that are against the interests of their respective constituencies tend to delay painful policy decisions and thus hinder fiscal adjustment.

Overall, there is some agreement on the role of political fragmentation in determining the timing and extent of fiscal consolidation in the aftermath of major debt expansions, while broader results concerning the impact of political institutions on the pace of debt accumulation remain mixed.

## **2.3 FINANCIAL MARKETS PRICING OF SOVEREIGN RISK**

While the literature reviewed so far is mostly concerned with the identification of the drivers of sovereign creditworthiness, the more direct analysis of financial asset pricing of sovereign risk has also grown considerably in recent years. In this section, we look in more detail at four currents of analysis:

- First, the study of the drivers of bond spreads in emerging markets.
- Second, the more specific analysis of the impact of political factors on asset price volatility.
- Third, Mosley's comprehensive study of how international bond markets discriminate between national government policy choices.
- Fourth, the analysis of risk premia paid by sub-national governments in federal states.

Altogether, these four currents of literature provide the background for the second pillar of our analysis, the direct investigation of bond market pricing. In particular, as seen in the Chapter 1, this thesis engages directly with Mosley's view that investors only consider a narrow range of data in developed democracies. Moreover, evidence derived from past analysis of the dynamics of bond spread in emerging markets and sub-national governments contributes to the formulation of expectations with regard to our more specific research interest concerning bond spreads in the Euro area<sup>37</sup>.

### **2.3.1 Bond spreads in emerging markets**

Like the broader literature on emerging market sovereign risk, the empirical literature on spreads of government debt instruments in emerging markets flourished in the 1980s and early 1990s. After a few years in the backseat, interest in this topic is now returning.

Much material has been produced in this area, with varying foci and techniques employed. The approach varies from regression models exploring the determinants of spreads to binary models quantifying default probabilities. Examples of regression-based analysis of the macroeconomic determinants of spreads are Edwards (1984), Eichengreen and Mody (1998), Beck (2001), and Hilsher and Nosbush (2008). Pan and Singleton (2008) apply their analysis to CDS spreads for Korea, Turkey and Mexico and estimate the default and recovery rates implicit in market valuations along the term structure. A different approach is employed by Gapen, Gray, Lim and Xiao (2005): they introduce the concept of "contingent claims", which uses mark-to-market sovereign balance sheets to derive

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<sup>37</sup> In Section 1.3.3, we highlight how Euro area government debt shares some of the features of sub-national government debt as well as of Emerging Markets sovereign debt.

sovereign credit risk indicators. Meanwhile, contributions to the design of “early warning systems” aimed at predicting sovereign defaults include the works of Hajivassiliou (1987, 1994), Berg, Borensztein, Milesi-Ferretti and Pattillo (2000), and Goldstein, Kaminsky and Reinhart (2000).

Overall, three main sets of factors are identified as drivers of emerging markets sovereign spreads:

- **Local fundamentals.** The analysis of the role of country fundamentals, with attention often concentrated on macroeconomic fundamentals, has been the original focus of the literature on the determinants of sovereign risk. Until the more recent emphasis on common global factors (see next paragraph), which is most likely also explained by the increased integration of global financial markets, macroeconomic fundamentals were generally found to be key drivers of spreads. Edwards (1984) produced the seminal paper in this area; it identifies external debt and debt servicing as the main determinants of bond spreads, with additional explanatory value attributed to the current account balance, currency reserves and an economy’s investment ratio. Min (1998) finds that a range of macroeconomic factors have explanatory power, including inflation rate, exchange rate, terms of trade, and net foreign assets. Duffie, Pedersen and Singleton (2003) develop a model of sovereign yield spreads and apply this to the case of Russia, finding that spreads respond to political factors and are inversely related to the size of currency reserves and to oil prices. In an investigation of bond spread developments in 31 emerging market countries between 1994 and 2007, Hilsher and Nosbusch (2008) identify terms of trade and their volatility as significant explanatory factors for spread divergence. Baldacci, Gupta and Matil (2008) take a step forward in the direction of interest to the present study by introducing fiscal and political factors into the analysis. The authors investigated a panel of 30 economies over the period 1997-2007 and found that both fiscal and political factors were of significance for sovereign risk premia in emerging markets. In particular, they found that lower levels of political risk result in lower risk spreads, as do attempts at fiscal consolidation.

- **Common factors.** There is a significant contingent of recent literature that emphasizes the role of common factors in driving emerging market bond spreads. For example, Longstaff, Pan, Pedersen, and Singleton (2007) find evidence of co-movement in emerging market sovereign CDS spreads. Common global factors found to have a role are mostly related to indicators of financial conditions and of risk aversion. Meanwhile, Pan and Singleton (2008) find an important role for the VIX<sup>38</sup> US stock market volatility index in determining movements in the spreads of the countries that they consider. Others explore the role played by the US ten-year Treasury bond yield, with mixed results. Dailami, Masson and Padou (2005) find evidence that US interest rate policy has an important role in driving emerging market credit spreads, particularly for countries with higher debt burdens. Studies that find a role for US Treasury yields include those by Arora and Cerisola (2001), as well as Uribe and Yue (2006).
- **Liquidity.** Papers showing that factors beyond outright default risk play a role in explaining movements in emerging markets have also emerged. Liquidity is normally referred to as the main residual factor, with taxes also sometimes mentioned. For example, Hund and Lesmond (2007) find a role for liquidity in both sovereign and corporate bond pricing, and Remolana, Scatigna and Wu (2008) identify factors unrelated to default risk influencing spreads.

### 2.3.2 Politics and asset prices

There is also a more specific set of papers directly concerned with measuring the impact of political events on asset price levels and volatility. Market players, risk managers and rating agencies normally refer to the uncertainty and instability deriving from political factors as “political risk”. Econometric analysis is often used to assess the impact of political variables on different types of assets, including bonds, foreign exchange and equity. The results generally suggest that the impact of political factors is strongest in emerging markets and in crisis periods.

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<sup>38</sup> Chicago Board Options Exchange Market Volatility Index

While the earlier studies were mostly concerned with exceptional political events, such as coups and civil wars, more recent studies focus on the impact of democratic political dynamics. For example, Block and Vaaler (2001) concentrate on the impact of elections on emerging market sovereign credit ratings and bond spreads. They show that election periods coincide with deterioration in ratings and increases in bond spreads. The research of Bernhard and Leblang (2002, 2004, 2006), looking at the impact of political processes on currency, bond and equity markets, has pushed this line of research into a more technical analysis of the effect of political events on financial market volatility in developed economies. This type of analysis enriches the broader branch of the finance literature dedicated to identifying the informational drivers of short-term moves in asset prices, and has latterly borrowed its techniques. For example, GARCH<sup>39</sup> regression techniques are used in the analysis of foreign exchange markets by Bernhard and Leblang (2006), where the possibility of political change is found to lead to higher volatility in currency markets.

### **2.3.3 Global capital and national governments**

The study of international and domestic sovereign debt dynamics brings two results. First, it derives models showing that sovereigns care about their reputation in international financial markets, since this can have an impact on the terms of international credit. Second, it suggests that domestic institutional and political factors can have an impact on the real or perceived creditworthiness of a sovereign. A heated debate on the constraints that financial globalization imposes on national policy-making has emerged in the last fifteen years from the recognition of this type of dynamic.

On the one hand, “convergence” scholars argue that international financial markets influence governments in favour of policy choices to their own taste to the point of becoming “masters of the government of States” (Strange, 1996). In the period considered by much of the existing academic literature, that is the 1980s and 1990s, market preferences were generally equated with neo-liberal policies, a reduction in the role of the State in the national economy, and a reduction of the welfare state. More recent writings (for example Walter and Sen, 2008), also recognize that such “policy capture” can reach

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<sup>39</sup> Generalized Autoregressive Conditional Heteroskedasticity

paradoxical extents, as in the 2008 financial crisis, when financial market players demanded that governments play an active role in bailing them out and supporting the economy.

On the other hand, “divergence” scholars argue that cross-country differences in policy choices are likely to persist. Two main reasons are given for this: first, the comparative advantage logic suggests that differing government strategies can support differing systems to compete in the global sphere; second, the additional pressures created by globalization increase, rather than decrease, the need for compensation policies on the part of governments.

In order to enrich the debate with substantial empirical evidence, in “Global Capital and National Governments”, Mosley carries out a global review of factors assessed by investors when making asset allocation decisions (2003). Mosley’s research includes both interviews with relevant investors (mostly fund managers) and quantitative analysis. Her main argument is that there is a distinction in the type of variables that interest bond market investors, depending on whether they price developed market or emerging market bonds. In advanced capitalist economies, she argues, “market participants consider key macroeconomic indicators, but not supply-side or micro-level policies” (2003, p. 17); meanwhile in emerging markets, “market participants consider not only macro-level policy outcomes, but also micro-policy indicators and the political landscape” (2003, p. 21).

Interestingly, the material for both Mosley’s article (2000) and her subsequent book (2003) was collected in the mid-1990s. The data series used for the quantitative analysis covered the period between 1981 and 1995, while the interviews were carried out in 1997. At that time, OECD policy consensus promoted “stability” (that is a reduction in inflation and budget deficits) as the key target for macro-policy-makers. Mosley does not explore how the limited market focus on a few variables may be connected to that particular contextual situation, but she recognizes a role for EMU-related rules in driving investors’ interest in a specific set of variables when assessing EMU candidate countries and, to some extent, other developed democracies. Indeed, for much of the period under consideration, 11 of the 19 developed democracies in Mosley’s sample were engaged in macro-convergence ahead of EMU, with the Maastricht Treaty placing particular emphasis on inflation and deficit variables as conditions for EMU entry. Interestingly, EMU candidates were found to



be assessed similarly to other developed democracies, with, if anything, more emphasis placed on inflation and deficit variables.

### **2.3.4 Sub-national governments' risk premia in federal states**

Before moving on to cover the specific literature on Euro area bond spreads, it is worth highlighting also some of the key findings of the studies on the risk premia paid by sub-national governments in federal states, for example the United States, Canada and Germany. The experience of "national monetary unions", and particularly the model of state debt in the United States, was often used as a reference in the discussions surrounding optimal EMU design (for example McKinnon, 1997), and it remains relevant as an input into current debate on fiscal union.

The studies of the US case generally agree that sub-national entities face higher borrowing costs than the federal government, and that the implied risk premia, although not normally very large, are sensitive to fiscal variables (for example, Goldstein and Woglom, 1991; Bayoumi et al., 1995). Besides lacking the monetization option, US sub-national entities are penalized because they face a mobile labour force and have a smaller tax base than central governments (Bayoumi et al., 1995). Moreover, federal bail-outs of US states and municipalities are rare, which reduces the problem of moral hazard.

Booth, Georgopoulos and Hejazi (2007) find similar evidence that the borrowing costs of Canadian provinces tend to be higher than those of the federal government and that they are sensitive to fiscal performance. Meanwhile, Lemmen (1999) looks at the Australian, Canadian and German experiences and argues that markets only "tend to bite" at times of low risk appetite.

Meanwhile, Schuknecht, von Hagen and Wolswijk (2008) argue that the degree of market discipline on sub-national governments depends crucially on the existence of transfers in the context of a "national equalization scheme", as well as more generally on the likelihood of a bail-out by the federal government in case of difficulties. Accordingly, they find that German states receiving fiscal transfers did not face any greater market scrutiny than did the federal government in the period up to 1999. This "moral hazard" problem among German Laender is highlighted also by Heppe-Fall and Wolff (2008). Schuknecht et al.

(2008) also argue that the advantage of the German Laender diminished with EMU, due to area-wide fiscal rules constraining the choices of the German federal government. Finally, they show that those Canadian provinces that typically receive fiscal transfers from the federal government tend to be treated more favourably by financial markets.

## **2.4 "MARKET DISCIPLINE" IN THE EMU**

Academic interest in the relative pricing of sovereign borrowing was spurred in Europe when the Maastricht Treaty was signed and preparation for the Economic and Monetary Union started. The analysis responded principally to concern about how the bond markets would respond to monetary unification, how much fiscal discipline they would impose on individual members, and thus how rules should be designed in order to compensate for possible inefficiencies in the market disciplining mechanism.

The debate did not end with the start of EMU, since the behaviour of bond yields initially defied many early expectations. Quantitative studies of bond prices were carried out. However, as experience was still limited and exceptionality could not be extrapolated from the norm, the results continued to differ in many respects, leaving the field open to further analysis. In recent years, the sovereign debt crisis has re-ignited interest in the subject.

In particular, the literature on Euro area bond markets reviewed in this section sets the stage for the theoretical and empirical analysis in this thesis. This both provides both important foundations for the subsequent research and highlights the shortcomings of existing papers. Crucially for us, a scarce interest in the role of political factors emerges clearly from this comprehensive review of past studies.

### **2.4.1 The "market disciplining" hypothesis and EMU design**

Academics, policy-makers and practitioners have engaged with the issue of intra-Euro-area bond spreads ever since the preparatory work for EMU started. The main issue that academics were grappling with during the 1990s was the extent to which convergence would take place among Euro area government bond yields. Academics and practitioners distinguished between the currency risk premium and the outright default risk premium reflected in bond valuations. Unsurprisingly, there was general agreement that differences

in currency risk would evaporate within a monetary union. There was, however, some discord concerning how the market pricing of outright default risk would evolve, due to uncertainty about the efficiency of capital markets and their ability to differentiate among member states.

Alesina et al. (1992) opened this debate in academia, which thrived in the 1990s and focused generally on whether the default risk premium would increase, and by how much. At one end of the spectrum, McKinnon (1992) considered that currency risk would become sovereign default risk in the most vulnerable nations, so that little benefit would be gained in terms of tighter intra-EMU bond spreads. Others took the view that the market mechanism would be inadequate to discipline national policymaking (IMF, 1997). The degree of discipline that financial markets would exert on national governments' fiscal policy was deemed to be of crucial importance in the institutional design of EMU, particularly with regard to the need for explicit fiscal rules.

In the 1990-99 pre-EMU literature, two main lines of thought can be identified:

- Default risk premia will increase with EMU. This was the view, for example, of Buiters, Corsetti and Roubini (1993), and of Lemmen and Goodhart (1999).
- Default risk premia will not increase or will increase only in some cases with EMU. This was the view for example of Restoy (1996), and of Holzmann and Demmel (1996).

The importance attached to the design of fiscal rules suggests that the EMU's founding fathers, and in particular the historically most fiscally prudent member states, were not convinced that the market mechanism would be sufficient to discourage national policy-makers from excessive indebtedness. First, they were not convinced about the efficiency of market pricing, and second, they feared that moral hazard might induce some member countries to spend beyond their means, in the expectation of being bailed out by their more fiscally conservative regional partners.

As a result, two of the five criteria imposed by the Maastricht Treaty as qualifications for EMU entry concern fiscal policy. The Stability and Growth Pact (however imperfect and

however much revised) was subsequently devised in order to extend similar constraints into the EMU period. Moreover, a “no-bailout” clause, stating that member states were individually responsible for the debt incurred, was inserted into the Maastricht Treaty, albeit watered down by a special provision to be drawn upon in emergency situations.

Article 104b of the original Maastricht Treaty covers the so called “no-bailout” clause:

The Community shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of any Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project. A Member state shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of another Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project (Maastricht Treaty, 1992).

Nonetheless, the provisions of the “no-bailout” clause are softened by the spirit of Article 103a:

Where a Member State is in difficulties or is seriously threatened with severe difficulties caused by exceptional occurrences beyond its control, the Council may, acting unanimously on a proposal from the Commission, grant, under certain conditions, Community financial assistance to the Member State concerned. Where the severe difficulties are caused by natural disasters, the Council shall act by qualified majority. The President of the Council shall inform the European Parliament of the decision taken (Maastricht Treaty, 1992).

The debate on the “market-disciplining hypothesis” and the need for fiscal rules continued up to the eve of EMU and beyond. A number of conditions needed to be satisfied in order for the “market-disciplining hypothesis” to be verified. First of all, a general belief in the assumption of “market efficiency” and full information was necessary in order to ensure effectiveness. Market discipline would function properly only if markets could efficiently gather and use information to respond to member states’ actual behaviour. Moreover, financial markets would appropriately monitor member states’ finances only to the extent

that the “no-bailout” clause proved to be credible. In this uncertain context, the Stability and Growth Pact (SGP) was designed as a set of rules aimed at forcing member states to be fiscally prudent over the longer term. The key requirement was that of a balanced or surplus public budget on a medium-term horizon. The common rules foresaw penalties for fiscal laxity. In particular, a deficit/GDP ratio above the 3% mark would trigger the Excessive Deficit Procedure, which could lead eventually to financial consequences. Nonetheless, the enforcement powers of the European Commission, the designated “guardian” of the Stability and Growth Pact, were weak, reducing the credibility of the threat.

#### **2.4.2 Empirical studies of bond prices in the EMU**

The evidence from the first years of EMU was not enough to solve the dispute concerning the “market-disciplining hypothesis”. As seen above, until 2007 intra-EMU government bond spreads remained very low, reinforcing rather than reversing the trend that prevailed during the period of convergence in the 1990s. However, these spreads did not disappear, even in many cases for equally AAA-rated national governments. The ambiguity of developments left the door open for contrasting interpretations.

Due the low level of spreads in the first eight years of EMU, the initial stage of the empirical research effort was skewed towards the question of whether the market discipline mechanism had actually *diminished* with monetary union, in spite of the many predictions that it would increase or at least be unchanged. In 2005, the Committee for Economic and Monetary Affairs of the European Parliament held a session which tried to tackle the “puzzle of interest rate inertia” (Fitoussi, 2005). The compression in intra-Euro-area spreads coincided with a period of very low credit spreads at the global level, as the price of risk generally collapsed against the backdrop of abundant liquidity. The challenge was then to disentangle global risk factors from domestic and EMU-specific market drivers.

In the resulting literature of the early 2000s on the effectiveness of the “market-disciplining hypothesis”, we can identify both scholars highlighting a structural change with the start of EMU and those favouring a “steady as she goes” interpretation.

More specifically, the following lines of thought can be identified during that period:

- EMU has not changed the market discipline mechanism. This is the line taken for example by Mosley (2004) and by Bernoth, von Hagen and Schuknecht (2004).
- Markets do not sufficiently price differences in intra-EMU default risk. The reports of Buitert and Sibert (2006), Wyplosz (2005), De La Dehesa (2005), and Fitoussi (2005) are all attempts to explain the perceived anomaly of very low intra-EMU bond spreads.

As the data-sets for the analysis of the post-EMU era became longer, econometric studies of the regional bond markets gained ground. Numerous quantitative exercises were carried out in order to identify factors explaining bond spreads. Studies aimed at identifying the extent to which the influence of fiscal variables continued in the earlier tradition, for example Bernoth et al. (2006), Schuknecht et al. (2009). Meanwhile, technically oriented quantitative studies were carried out in an attempt to disentangle domestic from international drivers of spreads, for example by Favero (2007) and Gomez-Puig (2008).

Results of the econometric studies carried out in the first years of EMU - before the 2008 crisis - are mixed and often contradictory<sup>40</sup>. Limitations with regard to the length of time series and the need to use proxies for the pre-EMU period complicated the analyses and probably contributed to meaningful differences in results. Moreover, conflicting results may have been generated by ongoing structural change: EMU institutions continued to evolve during the first ten years, as the framework was tested and improved through trial and error. For example, the Stability and Growth Pact progressively lost credibility. Studies show that after the first few years the Stability and Growth Pact lost informational content for markets, which had become insensitive to news related to it (Afonso and Strauch, 2006).

Nonetheless, looking through the 'noise', three key lines of explanation (sometimes competing, sometimes complementary) for the moves in intra-EMU bond spreads can be identified in the relevant literature: domestic fiscal positions, liquidity, and international risk sentiment.

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<sup>40</sup> Figure 2.4.2-1 provides a synthetic comparison of the results

- **Fiscal Positions.** The link between fiscal performance and bond spreads has been investigated in a number of papers. Results are not unanimous, but a considerable set of papers points in the direction of the significance of fiscal variables. For example, Bernoth et al. (2004) found that fiscal variables were significant for bond spreads both before and after EMU, although the metric of reference changed: debt service rather than overall deficit or debt became most relevant for explaining spreads after EMU. Meanwhile, Schuknecht et al. (2008) found a role for fiscal indicators of deficit and debt. Heppke-Falk and Huefner (2004) point out the importance of expected, rather than realized, deficits. Finally, Codogno et al. (2003) highlight a mixed role for debt ratios, which appear to matter for some countries but not for others.
  
- **Liquidity.** A significant proportion of recent studies point to liquidity as a key driver of spread levels and changes, although not all authors agree on this and there is controversy concerning magnitude. The “liquidity premium” reflects the compensation required by an investor for bearing the risk of having to sell a security at a lower price relative to the benchmark (Manganelli and Wolswijk, 2009). Liquidity is generally determined by factors such as market size and market segmentation (Gomez-Puig, 2008). Measures of liquidity used in the reviewed studies include the volume of bonds outstanding and proxies such as issuance volumes, debt ratios and bid-ask spreads. Authors finding important roles for liquidity differentials include Gomez-Puig (2008), and Manganelli and Wolswijk (2009). Liquidity is sometimes found to play a role when in interaction with other factors, for example by Favero, Pagano and von Thadde (2010). On the other hand, Bernoth et al. (2004) find that the role of liquidity faded after the beginning of EMU, while Beber (2009) shows that liquidity explains only 11% of spreads, against 89% attributed to credit quality.
  
- **International risk sentiment.** A number of studies find that international risk aversion plays an important role in determining fluctuations in Euro area bond spreads. The role of international risk sentiment is highlighted for example by Codogno et al. (2003), Bernoth et al. (2004), Favero et al. (2010) and Sgherri and Zoli (2009). In contrast, the dominance of domestic factors over international

factors is put forward by Gomez-Puig (2008) and by Manganelli and Wolswijk (2009).

With similar underpinning in finance models and often conceptually analogous contents, it is not surprising to note that, in spite of presentational differences, a significant part of the debate on the determinants of Euro area bond spreads mirrors the distinctions made in the analysis of emerging market bond spreads, as well as reflecting some features of the analysis of risk premia in sub-national governments in federal states.

All of the papers mentioned so far analyse the period of time up to early 2008. As a result, they do not cover the major widening in spreads in the crisis of 2008-2012, which is arguably the most interesting episode for intra-EMU spreads to date. Not surprisingly, economists' interest in Euro area bond spreads has increased markedly in the crisis period, and the frequency of research papers on this issue has increased significantly as a result. Table 2.4.2-1 provides a summary of the papers dedicated to the quantitative estimation of the drivers of Euro area bond spreads up to mid-2012. The table indicates both the sample period of the quantitative estimates and the main drivers identified in the estimations themselves. The table shows a strong increase in this type of analysis since 2009: interestingly, most of the working papers published on this issue are from the ECB or from major international institutions, including the IMF and the OECD, rather than from academic journals, highlighting the urgency of the issue for policy-makers, regulators and practitioners. It is likely that academic exploration will increase in the future as well.

The results of each quantitative study are not independent of the length of the inevitably partial data sets utilized, but some interesting results emerge if they are looked at as a whole. A key finding is that the drivers of sovereign risk spreads evolved over time, with a stronger role for international risk factors and domestic fundamentals since 2008. International risk factors are found to have played a significant role in the first part of the crisis (see, for example, Haugh, Ollivaud and Turner, 2009; Barrios, Iversen, Lewandowska and Setzer, 2009; Mody, 2009), while domestic fundamentals have prevailed since 2009. Indeed, a strong common thread of this line of research is an increased role for country fundamentals in driving spreads since 2009, sometimes interacting with global risk aversion (for example, Barbosa and Costa, 2010; Arghyrou and Kontonikas, 2010; Schuknecht, von



Hagen, Wolswij, 2010). Debt and deficit to GDP ratios are most commonly found to prevail among the country specific fundamentals (for example, Schuknecht et al., 2010; Caceres, Guzzo and Segoviano, 2010; Borgy, Laubach, Mésonnier and Renne, 2011), while a number of studies, particularly those covering sample periods up to early 2009, also find indicators of banking sector weakness to be significant, (Mody, 2009; Attinasi et al., 2009; Sgherri and Zoli, 2009). Moreover, some role for contagion from developments in the weaker economies is also found, particularly in the latter phases of the crisis (De Santis, 2012). Finally, De Grauwe and Ji (2012)<sup>41</sup> strike a slightly different but significant note, arguing that the increase in intra-EMU sovereign debt overshoot moves in fiscal fundamentals during the sovereign debt crisis, due to negative market sentiment and suggesting a mispricing of risk. In their view, this is related to EMU members' lack of monetary autonomy, which makes them "more fragile and more susceptible to self-fulfilling liquidity crisis" (De Grauwe and Ji, 2012).

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<sup>41</sup> We dealt with this issue in more detail in Chapter 1.

**Figure 2.4.2-1 Results of quantitative studies of EMU bond spreads**

<b>Study</b>	<b>Sample Period</b>	<b>Drivers of EMU bond spreads</b>
Codogno et al (2003)	12/95-10/02	International risk, budget deficits
Bernoth et al (2004)	1991-2002	Debt service, international risk
Geyer et al (2004)	01/99-05/02	Credit risk
Heppke-Falk et al (2006)	01/1994-07/2004	Expected budget deficits
Gomez-Puig (2008)	1996-2001	Liquidity, default risk
Hallberg and al (2008)	01/1995-03/2005	Budget deficits, Fiscal Institutions
Schuknecht et al (2008)	1991-2005	Budget deficits, budget debts
Beber et al (2009)	04/03-12/04	Credit risk, liquidity
Manganelli et al (2009)	01/1999-04/2008	Short-term interest rates, Liquidity
Favero et al(2010)	2001-2003	International risk, liquidity
Haugh et al (2009)	10/2005-06/2009	Expected budget deficits, international risk, liquidity
Barrios et al (2009)	03/2003-04/2009	International risk aversion, liquidity and credit risk interacting with risk aversion
Mody (2009)	12/2005-01/2009	International risk, financial sector weakness
Attinasi et al (2009)	07/2007-03/2009	Budget deficits, expected budget deficits, bank rescue packages
Sgherri & Zoli (2009)	01/2003-03/2009	Global risk, projected debt, financial sector solvency
Caceres et al (2010)	2005-early 2010	Global risk aversion, fiscal fundamentals, contagion
Arghyrou & Kontonikas (2010)	1999-04/2010	International risk factor, macro fundamentals, contagion*

Barbosa & Costa (2010)	2007-05/2010	Global risk premium, government creditworthiness, liquidity
Schuknecht et al (2010)	1991-05/2009	Impact of fiscal factors magnified in crisis, international risk aversion*
Borgy et al (2011)	01/1999-06/2011	Fiscal factors, particularly expected changes in debt/GDP*
De Grauwe & Ji (2012)	01/2000-06/2011	Debt/GDP ratio, negative market sentiment*
De Santis (2012)	09/2008-08/2011	Regional risk factor, country-specific risk, spillovers from Greece

\* This refers to the drivers identified during the crisis period

## 2.5 THE NEED TO RECONNECT POLITICS AND SOVEREIGN ASSET PRICES

### 2.5.1 The disconnect between politics and sovereign asset price analysis

Our parallel review of the literature on the political economy of government deficits and defaults, on the one hand, and the analysis of sovereign risk perceptions in financial markets, on the other, revealed one important mismatch.

Studies dating back to the 1980s show the importance of reputational, political and institutional factors in determining sovereign default probabilities and budgetary outcomes. Ever since the early analysis of sovereign behaviour in international financial markets, the role of political and reputational factors has been stressed. Similarly, the role of political factors in driving fiscal policy decisions has been highlighted throughout these years.

However, the analysis of sovereign risk pricing in financial markets has typically considered mostly economic and financial factors, often leaving aside crucial political aspects. In the last ten years, the debate on the drivers of sovereign bond spreads has mostly been

focused on disentangling common international risk factors from liquidity effects and from domestic macroeconomic fundamentals. Political fundamentals have been looked at much less frequently and with mixed results.

This weakness in the theory and practice of sovereign risk pricing was recognized also by the landmark work, “Managing Credit Risk. The next Great Financial Challenge”, by Caouette, Altman and Narayanan (2001). The authors note that the traditional approach to sovereign risk tends to have the flaw of including only economic/financial variables which are easy to measure, while tending to be less good at integrating political and political economy factors, partly because these are more difficult to measure (2001, pp. 345-346).

Moreover, almost all of the attempts made to study the role of political factors in sovereign risk pricing in recent years have been concentrated in the analysis of emerging markets, while little has been said on the role of politics, and particularly of political institutions, in developed markets. Indeed, authors have mostly dismissed the problem with the observation that political institutions do not matter for investment decisions in developed democracies.

### **2.5.2 The disconnect between politics and EMU bond spread analysis**

We find the absence of political factors in the analysis of EMU bond market spreads in recent years particularly striking. Indeed, while we find some attempts to reconnect politics and bond spreads in the emerging markets literature, we find no major study of how political factors specifically affect bond spreads in Euro area countries. The analysis of the Euro area sovereign bond markets has generally failed to integrate some important findings of the international literature on sovereign risk and on international financial markets constraints on government action, as well as mostly ignoring the role played by the political aspects of the region’s institutional framework, and more generally the influence of domestic political institutions and of international political economy factors. Indeed, political factors have mostly been absent from the testing of the sensitivity of EMU bond market spreads against different variables in recent years.

In the neo-functionalist explanation, customs union and economic integration were not intended to be the final goal of the European project. Economic integration would create

the conditions of frequent interaction and commonality of interests on which political integration would later be founded. As the pre-eminent neo-functionalist Lindberg pointed out, “the fundamental motivation is political” (1963, p. 153). Indeed, the broader than economic value of the European project was expressed already in the Preamble to the Treaty establishing the European Economic Community and reveals the wide-ranging vision of what would *prima facie* appear to be purely a trade agreement. The signatories were “determined to lay the foundations of an ever closer union” as well as “resolved to ensure the economic and social progress of their countries” and “to preserve and strengthen peace and liberty” (Treaty establishing the European Economic Community, 1957). This built on the Schuman Declaration of 1950, which spelled out the vision of a progressively integrating Europe: economic integration “may be the leaven from which may grow a wider and deeper community between countries long opposed to one another by sanguinary divisions” (Schuman Declaration, 1950).

Once this is recognized, it becomes apparent that for Euro area countries issues related to sovereign creditworthiness go beyond economic and financial aspects. Moreover, they also go beyond the boundaries of national policy-making. Indeed, they go straight to the heart of the monetary union’s governance infrastructure, and may even have a bearing on the future of the European Union project.

## **2.6 CONCLUSION**

The theoretical literature on the drivers of sovereign debt and default decisions highlights the role of political factors. Reinhart and Rogoff’s review of debt crisis experience in the last eight centuries empirically validates the theoretical results. For example, historical analysis reveals that a majority of the defaults recorded by middle-income countries across the eight centuries under consideration occurred when external debt to GDP ratios were below 60%, a level which is normally considered “sustainable” from a purely economic point of view (Reinhardt and Rogoff, 2009, p. 54).

Yet direct investigation of the role of political institutions in determining market perceptions of sovereign risk is scarce in general and missing in the case of developed

democracies and EMU countries in particular. The existing studies focus on the role of political institutions in emerging markets or on the early modern era in Europe.

The recasting in this chapter of sovereign default risk as a political, as well as economic, problem represents a key foundation of our approach to sovereign risk perceptions. By bridging the international literature on the economic and political fundamentals driving sovereign risk and studies of government bond spreads, we aim to make “endogenous” to our model of analysis factors that are too often treated as “exogenous”. In particular, an attempt to remedy the disconnect between scholarly beliefs concerning the drivers of sovereign defaults and the empirical analysis of sovereign asset pricing for developed democracies will drive our research effort in the rest of the thesis. Overall, the academic consensus on the drivers of Euro area and emerging markets bond spread in the last ten years emphasizes the role of liquidity, international risk aversion, and an often undefined concept of domestic “default risk”. Our aim is to go beyond this sovereign default risk ‘black box’ and determine what actually drives market perceptions, testing in particular the role of political and political economy factors.

## Chapter 3

### *An international political economy framework for sovereign risk*

#### 3.1 INTRODUCTION

The literature review in Chapter 2 revealed an under-investigation of the role of politics in driving investment decisions. In the case of developed democracies in particular, the issue is often rapidly dismissed on the grounds that political institutions do not matter for portfolio allocation across those economies, since these institutions themselves are supposed to have contributed to eliminating sovereign risk. This assumption is particularly surprising in the case of sovereign debt markets, since sovereign risk has inherently political connotations.

Moreover, in the presence of international financial markets with stronger financial and trade inter-linkages and, crucially, higher cross-border bond ownership, a wider web of interests is affected by a potential sovereign default decision. As a result, international political factors are also likely to play a role. The importance of international factors is further reinforced whenever the possibility of an international bail-out is introduced into the picture.

Indeed, mainstream economists highlight the fact that the quality of political institutions is a fundamental determinant of a country's debt tolerance level (Reinhart and Savastano, 2003). Accordingly, economists and political scientists have made a few attempts at investigating the political features more or less conducive to default in emerging markets (for example Kolshean, 2007). However, there has been limited investigation of the role of politics in affecting risk premia in what are normally denominated "developed

democracies”, including Euro area members, be these recent or long standing “graduates” to the club.

In order to fill this gap, in this chapter we develop a theoretical framework for the analysis of the relationship between the domestic and international political economy context of sovereign borrowing, on the one hand, and financial markets, on the other hand, with specific reference to modern developed democracies facing crisis.

We progress in three steps:

- First, we identify a mechanism of adaptive investor beliefs which underpins and motivates the subsequent investigation of the role of politics in the pricing of sovereign risk in modern developed democracies.
- Second, we build the appropriate theoretical foundations to anticipate the impact of both domestic and international political factors on sovereign risk perceptions across different democratic systems.
- Third, we distil our main theoretical arguments from the broader analysis in order to formulate specific hypotheses to be tested empirically.

The theoretical framework built in this chapter will be the foundation for the subsequent empirical analysis: to this end, in the next chapter we will develop an empirical framework that operationalizes our theory and creates the conditions for empirically testing our hypotheses in Chapters 5 and 6.

## **3.2 ADAPTIVE MARKETS AND SOVEREIGN RISK MODELS**

### **3.2.1 Beyond the developed/emerging distinction in financial markets**

As seen in Chapter 2, political factors are mostly found to have modest explanatory power in the market pricing of government bonds in developed democracies, both in and outside the Euro area. Mosley (2000, 2003) provides an (apparently convincing) explanation for this. She suggests a distinction between the ways investors assess sovereigns in developed



economies and emerging markets. She highlights how institutional investors adopt short cuts in pricing government bonds of developed democracies, focussing on a very limited set of macroeconomic variables to make their decisions. She contrasts this with the case of emerging market economies, where market participants consider a broader set of variables, including political and micro-level factors as well as macroeconomic fundamentals.

In turn, to explain this behaviour, she adopts the concept of “economization”: since investors have a limited amount of resources for their research, they concentrate their investigative efforts on those areas where the costs of error are higher. Government bond investors in developed democracies employ the working assumption that developed democracies are “good credits”, on the basis of pre-established beliefs about types of government. In developed democracies, the overall probability of outright default, and the default risk differences within the group are considered to be too limited to justify the time and effort necessary to collect additional information. Meanwhile, emerging-market investing requires a more refined understanding of the features of the countries involved, due to the higher saliency of default risk.

Mosley’s analysis is mostly static, since it refers to observation of the situation in a delimited period of time (1981-1997), during which economies do not move from one group to the other and the set of metrics used to assess one group of economies or the other does not change over time. Her inductive approach may have led to too much weight being put on time-dependent evidence in order to derive broader theoretical conclusions. To be sure, Mosley’s study does not rule out the possibility that a sovereign may at some point shift from the “good credit” to the “bad credit” category, and that investor assessment methods may change, but leaves scope for additional examination of how countries may shift from one group to the other.

As mentioned in Chapter 2, in the period covered by Mosley’s analysis, neoliberal preferences based on monetarism became widespread at the global level, influencing policymakers (Chwieroth, 2007), commentators and observers. “Macro-stability”, measured in terms of inflation and budget deficit reduction, was considered a goal in itself, particularly in the industrialized world. The emphasis on “stability” as a policy goal was not

present before the 1980s and has faded somewhat in recent years, since low inflation was achieved on a large scale, the applications of neoliberal precepts brought little success in a number of emerging economies and, more recently, Keynesianism acquired a new lease of life during the 2007 financial crisis.

Moreover, 11 of the 19 developed democracies considered in Mosley's paper were engaged in macro-convergence ahead of EMU for a meaningful part of the period under consideration, with the Maastricht Treaty putting particular emphasis on inflation and deficit variables. This is not entirely unrelated to the previous point, as some claim that the emerging neoliberal consensus was one of the key reasons for European governments signing the treaty itself (McNamara, 1998). And it may have mattered even more since all Mosley's practitioner interviews were carried out in Europe (London and Frankfurt) at the end of the period (1997).

It is thus quite likely that the intellectual "framing" generated by the common beliefs about the desirable features of advanced economies expressed along a few stability-oriented rules of thumb also influenced investors, and thus the way that market participants assessed sovereigns in the period under consideration. This reinforces the impression that Mosley's findings may be time- and/or state-dependent.

Indeed, an observation of market behaviour over a longer period of time shows that the distinction between emerging markets and developed democracies is not always as straightforward as it seemed in the last part of the twentieth century and the first few years of the twenty-first. Accordingly, the financial markets' assessment of what makes default "salient" cannot be reduced to a predefined categorization into "developed democracies" and "emerging markets", but may depend on a more complex set of changing factors. Default risk can become salient also in countries normally classified as "developed democracies" and considered as "risk-free" for long periods of time.

The historical evidence documented by Reinhart and Rogoff (2008) provides a strong case for an open-minded approach to where default risk may next become salient. Indeed, a number of governments considered excellent credits for several decades had experienced credit events (including default, debt restructuring, cuts or delays in payments) earlier, while only a small set of countries had never defaulted. The Euro area sovereign debt crisis

was a stark reminder of how things can change over time: countries previously seen as totally or almost risk-free, such as Greece, Ireland, Portugal, Spain and Italy, suffered from sharp increases in their risk premia, with three of them needing external bail-outs<sup>42</sup>. Clearly, as well-behaved countries can over time “graduate” from being seen as bad credit risks (Reinhart and Rogoff, 2009), they can also lose their status if circumstances change, with recent “graduates” or borderline economies being particularly at risk of sudden swings.

These observations raise the broader issue that sovereign default risk should not be treated as a binary variable, as implied by Mosley’s developed/emerging market distinction, but as continuous one. History shows that it is present even for countries normally considered highly creditworthy, such as the US or the UK. As in other markets (for example housing markets), the perceived tail risk of a catastrophic deterioration in asset quality tends to fall during long periods of stability, then rise rapidly and unexpectedly. Thus, the context and path dependence of market perceptions cannot be ignored. In this perspective, “risk-free” has always been a misleading concept, since it was founded on the mistaken assumption that tail risk had permanently approached zero in advanced economies.

Overall, Mosley’s identification of the “saliency of default risk” as a key factor driving the depth and breadth of market interest in economic and political fundamentals is not challenged here. However, the recent and longer-term experience argues against a distinction between developed democracies and emerging markets as a permanent determinant of where saliency of default lies and of investor valuation models, requiring a better understanding of how investors’ attitude may change over time.

### **3.2.2 Introducing dynamic, adaptive markets**

Our theory proposes a dynamic model of investor behaviour, where markets update their pricing strategies over time. In particular, investors “adapt” the set of variables under scrutiny to the extent that default risk is perceived as more or less salient, rather than relying on the static distinction between “developed” and “emerging” markets.

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<sup>42</sup>Greece, Ireland and Portugal. To date, Spain has also received external help in support of the banking system, although not directly to bail out the sovereign.

Our dynamic approach to investor behaviour finds support in the most recent advances in the finance literature, particularly in the recently formulated Adaptive Market Hypothesis. First presented by Andrew Lo of MIT in a 2004 issue of the *Journal of Portfolio Management*, the Adaptive Market Hypothesis (AMH) aims at reconciling efficient markets with the findings of behavioural finance. It argues that market behaviour is “consistent with an evolutionary model of individuals adapting to a changing environment via simple heuristics” (Lo, 2004, p 1). Our treatment of investors as dynamic, adaptive actors represents the crucial theoretical advance relative to Mosley’s approach, as well as the approach of the other empirical studies presented in Chapter 2. Indeed, the empirical studies carried out so far are crucially founded on the assumptions of efficient markets and rational investors. Mosley’s “resource economization” approach finds its origins in Grossman and Stiglitz’s (1980) modification of the Efficient Market Hypothesis (Fama, 1965), with professional investors treated as “rational maximisers” (Mosley, 2003, p. 32), thus relying on the assumptions of efficient markets and rational investors.

The Adaptive Markets Hypothesis takes its inspiration from biology, particularly evolutionary biology, moving away from the longstanding “physics envy” of rational economics. It finds additional support in the cognitive neuroscience research. Specifically, this new paradigm highlights how environmental forces - particularly competition and natural selection – determine the evolution of markets and institutions, determining efficient market outcomes and the eventual death or survival of investment products and businesses as well as institutional and individual fortunes (Lo, 2004). Lo refers to this phenomenon as “survival of the richest” as opposed to “survival of the fittest” in evolutionary biology (2004, p. 20). The AMH evolutionary perspective “implies that behaviour is not necessarily intrinsic and exogenous, but evolves by natural selection and depends on the particular environment through which selection occurs” (Lo, 2005, p. 16). In this framework, efficiency is eventually achieved as a result of the evolutionary process: “Prices reflect as much information as dictated by the combination of environmental

conditions and the *...ecology*”, making market efficiency “context-dependent” and “dynamic” (Lo, 2004, p 18)<sup>43</sup>.

Starting from Simon’s “bounded rationality” framework (Simon, 1955), Lo describes the process of adaptation as follows: “Individuals develop heuristics to solve various economic challenges, and as long as those challenges remain stable, the heuristics will eventually adapt to yield approximately optimal solutions to them. If on the other hand, the environment changes, then, it should come as no surprise that the heuristics of the old environment are not necessarily suited to the new” (Lo, 2004, p. 17).

The AMH has a number of practical implications; the following add important insights as to our model of market behaviour:

- “To the extent that a relation between risk and reward exists, it is unlikely to be stable over time”.
- “Contrary to the classical EMH, arbitrage opportunities do exist in AMH from time to time”
- “Investment strategies will also wax and wane, performing well in certain environments and performing poorly in other environments”
- “Innovation is the key to survival”<sup>44</sup>.

As a consequence “markets are not always efficient, but they are usually highly competitive and adaptive, varying in their degree of efficiency as the environment and investor population change over time” (Lo, 2011, p. 1). Lo also highlights how the adaptive nature of markets and particularly of “human risk preferences” can consequently contribute to the formation of asset bubbles and subsequent market crashes, since risk perceptions may

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<sup>43</sup> Hardie (2011) also recognises ongoing change in financial markets, and therefore investor attitudes. He considers processes of change through the lenses of financialization, which encompasses different categories, including “liberalization, innovation and internationalization” (Hardie, 2011, p. 130). In particular, among others, he highlights the role of changing investment mandates.

<sup>44</sup> Quotes from Lo (2004), pp. 21-23

differ for a while from the actual reality of risk and a “flight to safety” may prevail for a period. What in normal times appears to reflect the “wisdom of crowds”, turns into something more akin to the “madness of mobs” when excessive fear or greed prevail (Lo, 2011, p. 11).

Note that the dynamic, adaptive approach that we employ presents some fundamental differences from a straightforward Bayesian updating process. In a Bayesian updating framework, investors would rationally, continuously and consistently update their valuation models on the basis of incoming information (Bayesian updating). According to the Adaptive Market Hypothesis, investors adapt their behaviour when it becomes necessary in the eternal fight for survival, pretty much as species evolve in evolutionary biology. While Bayesian updating would be consistent with markets gradually processing all information as it comes in, our dynamic, adaptive approach accommodates the possibility that new information is processed in bursts, as innovation becomes necessary or appealing in order to survive, which in the case of investors equates with making money on their investments.

The AMH provides an intellectually satisfactory way of integrating imperfections to be found in the real world with the achievement of market efficiency, although, being in the early stages, it clearly requires further investigation. Therefore, our analysis of sovereign risk markets through these lenses has the potential to contribute to the theoretical progress and empirical testing of the Adaptive Market Hypothesis, as well as to our central research question on the political economy determinants of sovereign risk perceptions.

### **3.2.3 Adaptive markets and valuation models**

Applying the Adaptive Market Hypothesis to our specific interest in portfolio managers’ choice of valuation models, it emerges that dramatic changes, or shocks, in the investment climate may cause changes in the way institutional investors assess investment alternatives. As in the case of investment strategies, valuation models may come into and go out of fashion depending on the surrounding environment, and new models may be developed and adopted over time. For example, the need for innovation in order to ensure survival (which in the asset management industry equates with beating the competition in terms of asset returns) may lead one or more players to explore new ways of looking at

,investment alternatives, thus triggering price movements likely to induce other players to do the same. Indeed, the nature of investors' interest in fundamental variables may vary depending on the specific episode under consideration. For example, as a consequence of a banking crisis, the size of the banking sector relative to GDP or the results of banking sector stress tests may suddenly become important in assessing sovereign risk, even where these factors tend to be overlooked in "normal times".

One theoretical approach in the international economics realm that applies the coexistence of rational and behavioural elements in financial markets to the specifics of asset prices and financial crisis is Thomas Willett's "Too Much, Too Late Hypothesis". In his paper, Willett engages directly with the question of whether markets act as sources of crisis or of discipline, with particular reference to the European Monetary System (EMS), to Latin American and to the Asian currency crisis. He argues for an "intermediate view of rational but imperfect investor behaviour" (Willett, 2000, p 5). He rejects both "the idealized view that financial markets and governments consistently act on the basis of farsighted, well-informed expectations" and "the contrasting extreme that investors and speculators are the primary cause of international financial instability through the generation of irrational speculative bandwagons" ( p. 1). He argues that markets are often short-sighted and fail to "anticipate problems" or provide "early signals" of crisis. They often fail to gradually adjust to deteriorating fundamentals, which in turn would represent an incentive for governments to implement corrective policies and prevent a crisis later on, or provide "early signals of crisis". This behaviour is attributed to a variety of possible reasons, such as misinformation, herding behaviour, or "gullibility of traders" (the latter in particular applied to the credibility of exchange rate pegs). Then, once "things have gotten out of hand", markets often overreact. As a result of changes in incorrect assumptions or "mental models" (such as loss of credibility of the exchange rate regime) and surging uncertainty, or other effects such as poor information or herding, markets can then overreact to the underlying problems, reinforcing overshooting phenomena (again, particularly as applied to foreign exchange markets).

### **3.2.4 Adaptive markets, perceived risk-free status, and sovereign risk perceptions**

Taking a step further and applying this framework more specifically to our interest in sovereign risk pricing leads to a rejection of a static distinction between developed and emerging market economies as an invariable determinant of investors' choice of valuation models. While the distinction may hold for extended periods of time, a pre-determined classification of this type may not hold forever.

Specifically, when outright default is perceived as a real possibility, developed democracies may be analyzed through lenses more similar to those normally reserved for emerging market economies in the period analyzed by Mosley. Indeed, investors are likely to broaden the scope of the analysis from a narrow set of macro shortcuts to a broader set of fundamental economic and political variables whenever debt repayment stops being taken for granted, and default starts being perceived as salient. When faith in the assumption that government debt is risk-free dwindles (either for one or a set of governments or in the aggregate), the bonds issued by the sovereign or sovereigns in question lose their perceived "risk-free" status and become "risky assets". Notably, if markets doubt the risk-free status of the debt of a government, this may be sufficient to increase their scrutiny of all governments, or all governments considered to be in the same category (for example, developed democracies, emerging markets, EMU countries), in order to ensure a proper distinction between "good credits" and "bad credits".

When the possibility arises in investors' minds that one or more sovereigns in a group may be bad credits (or "lemons"), financial markets become interested in distinguishing the credit quality of the borrowers in question, for what are normally referred to as developed democracies as well as for emerging markets. Under such conditions, they are likely to step up the resources employed in investigating a broader and deeper mix of economic and political factors also when pricing the debt of developed democracies, as in the case of emerging markets in the last thirty years and in the case of England and France in the seventeenth century. Consistently with this, at the time of the 2008 financial crisis some



observers referred to highly indebted developed economies as “submerging markets”<sup>45</sup>. Also consistently, there is evidence that financial analysts extended the focus of their reports on government debt issued by developed democracies to a broader set of factors, notably political factors and related aspects of credibility, to the extent that default risk was perceived to be increasing<sup>46</sup>.

### **3.2.5 How government bonds can become “risky assets”**

The interest rate on government debt in developed democracies enjoyed the advantage of being treated as the benchmark risk-free rate for the reference economy for a number of decades. Much of the finance literature, including portfolio theory and options pricing models, is based on this assumption. However, as seen in Chapter 1, this conviction has been shaken by the events of the last few years and some have even questioned whether academic and practitioners should still use US Treasury yields as the reference “risk-free” interest rate (De Keuleneer, 2008).

Read within the framework of our theory, this confirms that sufficiently serious shocks may lead investors to doubt the sustainability of the debt of one or more sovereigns, so that they lose their perceived “risk-free” status. In such a context, it becomes more important for investors to be able to distinguish between a “risk-free” sovereign and a “risky” sovereign, and to quantify the relative degree of risk associated with each sovereign in the second group. When sovereigns (or a subset of sovereigns) are no longer considered “risk-free”, the cost of a valuation error on the part of investors increases significantly (in terms of outright losses or lost gains), creating a strong incentive to scrutinize a broader set of factors in order to distinguish between good and bad credits.

We identify two types of shock that can trigger or favour such a shift: endogenous and exogenous shocks.

Endogenous shocks are those economic, financial and political events that can have a major influence on markets’ perceptions of the sustainability of sovereign debt. Both economic

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<sup>45</sup> See for example Buiters (2009) and Steverman (2009).

<sup>46</sup> See for example Goldman Sachs (2010) or JPMorgan (2010).

and political factors can come into play to increase market alertness to default risk. As highlighted in Chapter 2, sovereign debt sustainability encompasses both economic sustainability (“capacity to pay”) and political sustainability (“willingness to pay”). Moreover, we need to recognize that not only domestic factors, but also international ones can play a role.

We can identify in particular three set of endogenous shocks: financial or economic shock that can result in a sudden deterioration in actual or expected economic fundamentals, particularly leading to higher current or expected public debt ratios; a political shock such as a sudden regime change; or a sudden or large change in international risk aversion.

As these shocks are by definition endogenous to the economic and political dynamic, it may be hard to disentangle factors that trigger updates in the valuation approach from factors that trigger straightforward revisions in market risk perceptions. We cannot exclude the possibility that some circularity may indeed develop, with self-reinforcing feed-back loops consistent with the findings of behavioural finance studies. That said, it is clear that changes in endogenous conditions need to be particularly dramatic to induce a change in valuation models.

Meanwhile, exogenous shocks are those determined exogenously from the economic and political dynamic of the sovereign in question. We identify in particular three sets of exogenous shocks.

First, there is the possibility of exogenously driven outright changes in the models of interpretation of reality used by financial markets, as described, for example, by Walter (2008). This can be driven, for example, by how academic theories develop and how fashionable they are at a given point in time. For example, we highlighted above how the prevalence of neoliberal ideas in the 1980s and 1990s may have influenced not only government policies, but also how the markets assessed those policies. Similarly, the discrediting of purely quantitative strategies in the aftermath of the 2008 financial crisis has led to renewed interest in underlying fundamentals.

Second, changes in access to possible external financial assistance can play a role, since the more likely it is that a country will be bailed out, the less necessary it is for investors to

form a view on the domestic sustainability of its debt. Thus, the involvement of the IMF as a lender and guarantor of future fiscal consolidation through the conditionality mechanism, or belonging to a club such as the EMU, could potentially make a difference to investors' interest in distinguishing between "good credits" and "bad credits". Tomz (2007) highlights how awareness of the IMF backstop reduces investors' incentives to recognize and avoid potential "lemons". Similarly, the evolution of a club's real or perceived bail-out attitudes or changes in the perceived durability of such club arrangements (for example a sudden increase in the perceived likelihood of EMU break-up or EMU exit by one or a set of countries) could play a role.

Third, institutional factors may matter, for example changes in a central bank's collateral policy, particularly the extent to which government bonds of different issuers are treated in the same way at the open market window. Some argue, for example, that in the first years of EMU the ECB's acceptance of member countries' government bonds on the same conditions, in spite of different official credit ratings, contributed to disincentivizing markets from a more careful investigation of their underlying creditworthiness (Buiter and Sibert, 2006).

Admittedly, it could be argued that the factors that we classify as exogenous may not be entirely so (for example, an economic theory can be discredited as a result of an unanticipated crisis), but they have the common feature of being clearly extrapolable from the underlying economic and political dynamics.

### **3.2.6 Key theoretical proposition**

In Section 3.2, we have developed the first pillar of our theoretical framework, concerned with fundamental market characteristics and their impact on portfolio managers' choice valuation models and the development of sovereign debt crisis.

We propose an intermediate position between full efficiency and complete irrationality in market behaviour. The Adaptive Market Hypothesis is the most comprehensive and developed theoretical effort to reconcile the two. The "Too Much, Too Late" Hypothesis is a more specific attempt to explain asset pricing behaviour by merging rational and behavioural market traits.

By relying on a concept of “varying” degrees of efficiency, we can move beyond the assumption of fully efficient markets and introduce dynamism in our model of investor behaviour.

**Proposition 1:**

*Financial markets are neither fully efficient nor completely irrational: investors adapt their models and portfolio strategies over time, on the basis of environmental and ecology conditions.*

From this theoretical proposition, we can derive the following key conceptual point concerning specifically sovereign bond markets and underpinning our political economy framework of sovereign risk analysis:

*The depth and breadth of investor analysis of sovereign borrowers is not pre-defined on the basis of immutable classifications, such as those of developed democracies and emerging markets. Instead, it evolves over time, and particularly in response to shocks that modify perceptions concerning the saliency of default risk.*

The redefinition of investor behaviour in this way opens the door to the possibility that the set of variables assessed by investors when making asset allocation decisions among developed democracies may vary between normal times and periods of crisis. In particular, in this framework, financial markets would consider a broader information set when assessing developed democracies in fiscal stress than in normal times, in a manner closer to the usual analysis of emerging markets. This argument in turn motivates an investigation in Sections 3.3 and 3.4 of the political factors that may influence sovereign risk perceptions in developed democracies facing sovereign debt crisis.

### **3.3 THE POLITICAL SOURCES OF SOVEREIGN CREDIBILITY IN FINANCIAL MARKETS**

In Section 3.2, we determined that the limited role found in past empirical studies for political factors in influencing sovereign risk pricing is not enough to infer that political fundamentals are universally ignored as discriminatory factors when investors assess

sovereign borrowers in developed democracies. Instead, we showed how the set of factors considered in sovereign risk pricing models should broaden when investors' perceptions of a sovereign as *de facto* risk-free are called into question.

Crucially, in Chapter 2 we showed how academic literature dating back to the 1980s notes that, in spite of the important role that economics plays in determining a default (or near-default) situation, a government decision to default is ultimately a political decision (Alesina et al., 1992). In fact, the default of a government has important distributional consequences (basically favouring future tax payers or the beneficiaries of public spending at the expense of bond holders) and as such its likelihood cannot appropriately be assessed in abstraction from the political sphere.

This recognition implies that political factors should figure among the additional variables considered by investors when assessing sovereign risk in periods of fiscal stress. Once a sovereign borrower shifts to a situation where a choice between consolidation and default is potentially to be made, political trade-offs emerge that may not have been as strong or even relevant in "good" times. Political and political economy factors that were previously ignored can thus become an element of consideration in investors' choices.

It is important to point out here that the specific focus of our theory on political economy factors is not intended to downplay the importance of economic and financial variables as indicators of sovereign stress. On the contrary, investors are likely to intensify their scrutiny of economic and financial variables, in terms of both breadth and depth of analysis, when default risk becomes salient, and integrate the economic analysis with political considerations. Political factors are likely to come into play as contributory or exacerbating factors in sovereign debt crisis, rather than emerging as exclusive sources. Indeed, economic and financial fundamentals play a crucial role in taking the sovereign to the cusp of default, forcing it to consider the political trade-offs and influencing the related cost and benefits analysis.

With that in mind, and in light of the under-investigation of the role of politics in driving sovereign risk premia in developed democracies and Euro area countries in particular<sup>47</sup>, we

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<sup>47</sup> As highlighted in particular in Section 2.5.

move on to develop hypotheses concerning the political variables that should be expected to have an influence on sovereign risk pricing.

The remainder of this section (3.3) develops hypotheses concerning the domestic political determinants of sovereign risk pricing in financial markets. We derive our first hypothesis from the seminal literature on the domestic source of sovereign credibility, which highlights the role of political institutions, particularly checks and balances, in driving sovereign borrowing costs. Then, we enrich the analysis by looking at the role of socio-political contestation and polarization, and derive from this some hypotheses concerning the role of socio-political contestation and its interaction with political checks and balances.

Finally, Section 3.4 takes the theory a step further by introducing an international dimension to the analysis of sovereign risk perceptions. Indeed, we find that the traditional focus on domestic political factors is insufficient, as it ignores the international dimension of the issue, a dimension that gains more and more importance as international financial integration increases. The interaction between cross-border bond ownership and the international political framework extends the set of political economy factors that are set to play a role in driving sovereign risk premia.

### **3.3.1 Checks and balances as a source of credibility in financial markets**

Kydland and Prescott (1977) were the first to highlight the time-inconsistency of optimal policy plans, spearheading the rich “credible commitment” literature. Meanwhile, North and Weingast's (1989) discussion of England's experience in the early modern era introduced more specifically the analysis of the connection between political institutions and perceptions of sovereign creditworthiness in bond markets. In their historical review, they argue that the emergence of institutions of representative government in seventeenth century England increased the credibility of the government's commitment to upholding property rights, and was translated into cheaper sovereign financing costs in financial markets. After the Glorious Revolution of 1688, Parliament's influence on executive decision-making was strengthened and limits were imposed on the Crown's ability to alter its commitments unilaterally. Thanks to a wider representation of different interests,

stronger constitutional checks and balances reduced the leeway for the sovereign to arbitrarily renege on its financial commitments: "Increasing the number of veto players implied that a larger set of constituencies could protect themselves against political assault, thus markedly reducing the circumstances under which opportunistic behaviour by the government could take place" (North and Weingast, 1989, p. 829).

Moreover, the authors find evidence that capital markets appreciated the new institutional guarantees of property rights and adjusted their attitude accordingly. Indeed, after the reforms were introduced, access to loans became remarkably swifter for the English government, with interest rates on sovereign debt falling significantly. The easier access to credit experienced by England contrasted with the ongoing difficulties faced by autocratic France, where the power of the monarch remained unconstrained. In all, North and Weingast argue, stronger institutional checks and balances conferred an advantage on England when it came to raising finance, in terms of both the amount and duration of credit obtained and the risk premium paid on such credit.

Indeed, the analysis of North and Weingast added an important perspective to the broader issue of "credible commitment" of government policies, and started a new strain of literature in an area that goes to the heart of one of the key problems in political economy. The "intertemporal inconsistency" of government commitment is a crucial, pervasive and longstanding dilemma of political economy. An unchecked sovereign can commit to a policy at a certain point in time and renege on its promises in a subsequent period, as the perceived trade-offs from the implementation of those policies change (Drazen, 2002). A change of heart can be triggered, for example, by an external shock, or more subtly when the commitment itself puts the sovereign in a position to benefit from renegeing, as can be the case with inflation, or more simply when the decision-makers or the interest of the better-represented constituencies change.

North and Weingast address primarily the issue of the credibility of domestic debt repayment, but the problem is widespread at the international as well as at the domestic level. As we saw in Chapter 2, in the last thirty years, much academic research has gone into identifying the incentives to international debt repayment, given the lack of direct enforcement mechanisms. Another area of international finance that raises similar issues to

those of sovereign debt is the credibility of exchange rate pegs (under the gold standard, devaluation was implicitly a form of partial default).

In the aftermath of North and Weingast's seminal paper, further research has aimed at fine-tuning and reinforcing their initial case, arguing that political systems with more constitutional "checks and balances" can commit more credibly to debt servicing and repayment and are less likely to default. In this tradition, Schultz and Weingast (2003) have argued more recently that in long-lasting hegemonic struggles democracies should prevail over autocracies since they have easier access to credit from their own constituencies. Albeit not entirely uncontested, a crucial finding of this line of literature remains the positive relationship between the degree of diffusion of power and sovereign credibility in financial markets.

An interesting re-elaboration of North and Weingast's analysis is that of Stasavage (2002, 2003). Stasavage re-visits the early Modern period with a deeper comparative analysis of the political and social backdrop to public borrowing in Britain and France, contributing further insights on the issue. His main contribution is the identification of the role of partisan interaction as a factor influencing the credibility of sovereign debt repayment, taking the theory a step forward from the original focus on constitutional checks and balances. While he agrees that the constitutional establishment of multiple veto points may reduce default risk, he suggests that it may not always be sufficient or indeed necessary. Instead, he argues that party government has a role in reducing default risk: in particular, he sees the presence of multi-issue coalition dynamics, reinforced by political party institutions, as increasing debt repayment credibility, particularly where government creditors are part of a coalition controlling at least one of the veto points, and are thus empowered. With reference to his case studies, he shows that the British government's improved access to finance in the seventeenth century was due not only to the establishment of a limited monarchy, but also to the development of political parties (Stasavage, 2003), since this allowed for the interests of bond holders to be represented in decision-making through cross-issue coalitions.



### 3.3.2 The “veto players” framework

The concept of political "checks and balances" has been the object of an important attempt at formalization in the past fifteen years. Significant progress was made in the theoretical treatment of the so-called “veto players”. The veto player framework proposed by Tsebelis (1995), in particular, facilitates the classification of democratic polities on the basis of the dispersion of authority within the political system, encompassing the binary concepts otherwise used to describe the system of government (parliamentary or presidential) or the type of legislative representation (majoritarian or proportional).

For Tsebelis, the diffusion of political power is determined by the number of “veto players” in the political system. "Veto players" are defined as "individual or collective actors whose agreement is necessary for a change of the status quo" (Tsebelis, 2002, p. 19). Like the writings of North and Weingast, Tsebelis' initial 1995 paper was based on the concept of “constitutional veto players”, that is those veto players whose status is assigned by the constitution of a country (Tsebelis, 2002). For example, in the case of US legislation three key institutional veto players are identified: the President, the House of Representatives and the Senate. The judicial branch could arguably be added to the group.

Since Tsebelis' first article in 1995, however, scholars have emphasized that the concept of "constitutional veto players" leaves out some important aspects of the political process and the institutional “veto player” definition has shifted to include what Tsebelis calls "partisan veto players", noting in his 2002 book that "partisan veto players" are generated inside collective “constitutional veto players” by the political game (Tsebelis, 2002, p. 19)<sup>48</sup>. For example, in Italy legislation needs to be approved by the two chambers of Parliament (representing two constitutional veto players), but the decision outcome actually depends on the particular coalition formation within the chambers. Thus, the number of (institutional) actors whose agreement is needed in order for legislation to go ahead corresponds to the number of parties in the government coalition (or the partisan veto players), rather than to the number of chambers constitutionally involved in the decision

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<sup>48</sup> The recent literature mostly refers to the strictly defined “constitutional veto players” as veto points.

(or constitutional veto players). Cross-country databases on veto player numbers and features are typically designed with the broader definition in mind, and so are most of the more recent empirical papers exploring the connection between veto players and sovereign credibility.

Since policy changes need to be approved by all veto players, the main thrust of Tsebelis' model is that a higher number of veto players in the political system leads to higher policy stability. Moreover, in this analysis (Tsebelis, 2002), the ideological distance between veto players is important, as more vetoes will make no difference when they are ideologically aligned. Thus, given a certain number of veto players, a higher degree of polarization (or distance on the preference scale) among veto players translates into higher policy stability. Thus, recognizing the degree of polarization in the veto player configuration, in addition to the number of players, can be important when assessing the likelihood of alternative policy outcomes.

Translating North and Weingast's findings into veto players terms, this implies a preference of investors for policy stability and a positive correlation between the number of veto players and sovereign credibility in financial markets.

### **3.3.3 Alternative interpretations of the relationship between checks and balances and sovereign credibility**

While the literature in the tradition of North and Weingast (the "credibility" tradition) has focussed on the credibility gains to be had from a higher number of checks and balances in the political system, a separate line of political economy studies has highlighted how a greater diffusion of power tends to delay fiscal consolidation, particularly as this applies to advanced economies.

As we saw in Chapter 2, scholars in the "consolidation" tradition argue that higher diffusion of political power increases rigidity in policymaking and delays unpopular measures. As a result, they see greater political fragmentation as an obstacle to budgetary consolidation, and conducive to higher public debt and deficit trends (Roubini and Sachs, 1989)<sup>49</sup>. In the

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<sup>49</sup> This branch of the literature is covered in some detail in Chapter 2.

“war of attrition” model, stabilizations with serious distributional implications generate conflict among social groups as each group tries to shift the burden onto other groups; the difficulty in reaching a collective decision generates a political stalemate, which in turn delays fiscal adjustment (Alesina and Drazen, 1991). Similarly, Franzese, using Tsebelis’ “veto players” concept carries out extensive cross-country quantitative analysis of OECD economies and finds that fractionalized governments delay fiscal adjustment (Franzese, 2002), even while the majoritarian or proportional distinction does not seem to matter *per se*. Overall, from the “consolidation” perspective, the increase in policy stability generated by a higher number of veto players is interpreted as an undesirable obstacle to adjustment and reform, rather than as a desirable source of policy predictability.

This line of thought raises the issue of whether markets may prefer more politically cohesive systems to systems with a higher degree of policy diffusion, as highlighted for example in MacIntyre (2001). This would imply a negative correlation between the number of veto players and sovereign credibility in financial markets, the opposite to that predicted by the “credibility” literature. This would potentially mean that markets look at veto players in developed democracies from a different perspective than has typically been found to be the case for those in emerging market countries, or in early modern Europe. This could potentially be justified by the fact that sudden and unpredictable policy reversals are relatively unlikely in developed democracies compared with autarchies and young democracies. Indeed, the “consolidation” literature is concerned with post-shock public debt consolidation and overall debt accumulation in modern OECD economies, while the “credibility” literature is more directly concerned with market preferences in emerging markets and at the early stages of the nation-state in Europe.

MacIntyre (2001) proposes an interesting compromise in order to integrate insights from both the “credibility” and the “consolidation” lines of investigation. He argues that financial market perceptions of political risk are not linearly related to the number of veto players, but rather characterized by a U-shaped relationship, where too many or too few veto players are connected to higher risk premia, while political systems with an intermediate number of veto players are perceived as more creditworthy. In his view, it is an excess of either centralization or fragmentation of power that leads to a greater market perception of political risk in the event of a crisis. Comparing the experience of four countries in the

Asian crisis of the late 1990s, he argues that such a U-shaped relationship can explain the different extent of capital flight observed in Indonesia, Malaysia, the Philippines and Thailand. MacIntyre estimates that at least six veto players were present in Thailand at the time of the crisis, with Malaysia and Indonesia having only one and the Philippines an intermediate three. In his view, the intermediate configuration of the Philippines helps to explain why the country suffered a less severe investment reversal.

Applying MacIntyre's framework to developed democracies, however, faces the complication that developed democracies do not normally find themselves at the extremes of the veto player configuration possibilities: their institutional features leave them in the intermediate space of the broader spectrum of possibilities to be found in emerging markets. Very low veto player configurations, particularly the one veto player system that is found in autocracies, do not exist; and extremely high numbers of veto players, as sometimes found in emerging market democracies, are rare.

This can also be shown quantitatively thanks to the global veto player count provided in the World Bank Database of Political Institutions: this data confirms that developed democracies fall in the intermediate part of the range covered by emerging markets. Figure 3.3.3-1 shows this visually, with a global cross-section of 2009 veto player estimates<sup>50</sup>: on this measure, veto players in emerging markets span from one (autocracy) to 17, while they range from two to six in developed democracies<sup>51</sup>. Thus, MacIntyre's analysis could simply imply that the mid-range veto player configurations of developed democracies are generally preferred to the extremes of emerging markets. Meanwhile, there would be too little variation in the veto player constellation among developed democracies for this to

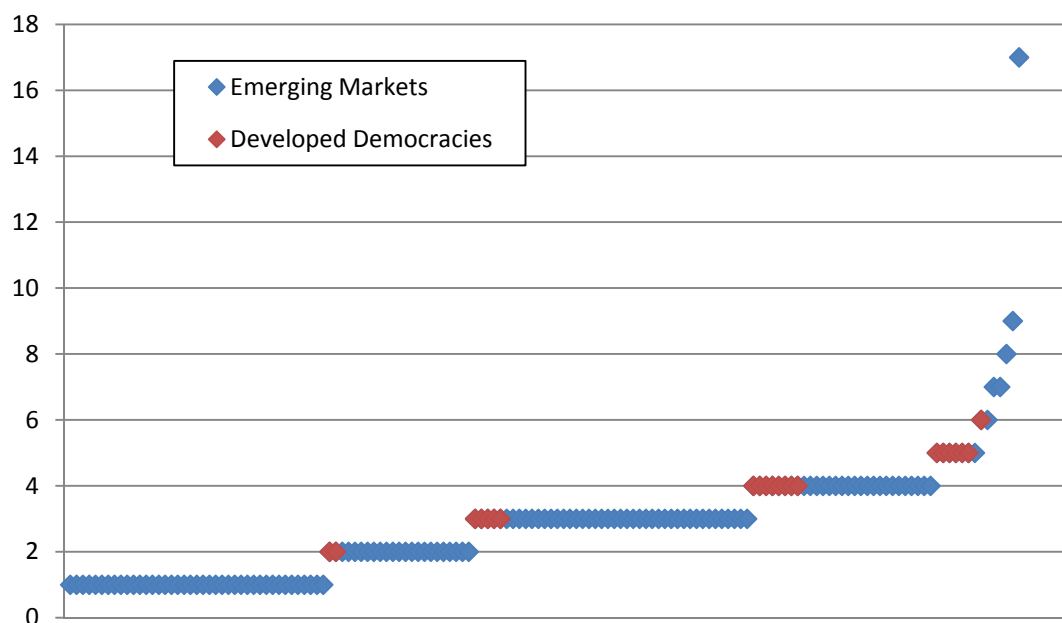
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<sup>50</sup> We use the CHECKS measurement from the World Bank Database of Political Institutions (DPI). The CHECKS index measures both constitutional and partisan veto players, accounting for the ideological orientation of parties in the government coalition (Keefer, 2010).

<sup>51</sup> A caveat here is that there is some variation in estimation methodology in different metrics of veto players, since there is no complete agreement on how to count them. As a result, MacIntyre's estimates of the number of veto players in the countries under consideration are not directly comparable with the figures of the World Bank Database of Political Institutions. Moreover, MacIntyre (2001) does not tell us exactly how many veto players are required for categorization as "too high" or "too low". Still, the use of a homogenous source of measurement provides a good overall sense of the positioning of developed democracies in comparison with emerging markets.

matter for investors. In terms of our analysis, this would provide a theoretical justification for an empirical finding suggesting that the formal veto player structure has little importance for investors' differentiation among developed democracies.

**Figure 3.3.3-1 Veto players in Emerging Markets and Developed Democracies**



Number of veto players (vertical axis) in sovereign borrowers across the world (horizontal axis).

Source: World Bank Database of Political Institutions, 2009.

### 3.3.4 The role of socio-political contestation

The ambiguity of the theoretical foundations of the relationship between institutional veto players and sovereign credibility in developed democracies suggests that differences in the institutional veto player structure as defined in the academic tradition in the field (that is, limited to the formal holders of the institutional veto points in the official government system) may not be sufficient to explain credibility differences among the more homogeneous set of developed democracies. As a result, we extend our analysis to consider the role of polarization and contestation in the broader socio-political system<sup>52</sup>.

<sup>52</sup> We keep this section focussed on domestic factors, while Section 3.4 will provide a complete treatment of international factors.

In this perspective, it is useful to consider the role of *de-facto* veto players in the broader political system. In the political economy literature, this concept of *de-facto* veto players finds resonance in Heritier and Knill (2000): indeed, they identify both formal and factual veto players as important determinants of policy outcomes in developed democracies. In Heritier and Knill's view, "factual veto positions have to be taken into account where there is a participation of associations in decision-making such as in corporatist sectoral decision-making arrangements" (2000, p. 2). Specifically, their study is concerned with the reasons for differential policy outcomes across EU member states in the face of identical demands from the European policy framework, with an empirical focus on transport sector reform. They find that differing numbers of formal and factual veto players help to explain different degrees of transport sector liberalization across a number of European countries. In their paper, they highlight for example that in France, in spite of the low number of formal veto points, "the potential of the government to realize political reforms is restricted by the high societal capacity for political mobilisation"(p. 7) and "decision-making is embedded in a tradition of adversarial anti-state politics which makes consensus building difficult" (p. 17). In particular, they find that in the haulage sector "the adversarial tradition becomes apparent in a rather strong social movement, resulting in massive strikes" (p. 7).

The political economy finding that contestation, as shaped by ideological polarization, can influence in the process of policy decision-making, and particularly hinder policy implementation, has some important implications for our analysis. Indeed, we can deduce from this that a political backdrop characterized by strong ideological polarization - particularly on economic issues - and an adversarial attitude may negatively affect markets' perceptions of sovereign creditworthiness. In contrast, an ideologically cohesive social structure with a consensual approach and a low level of socio-political contestation should increase the credibility of a sovereign's policy decisions.

This would imply a negative correlation between the degree of social and political contestation and the sovereign's credibility in financial markets, other things being equal. Investors' concern about a high level of socio-political contestation and the cleavages that this represents would make sense also when seen from the perspective of the original inter-temporal dilemma of sovereign debt. A high degree of social polarization and contestation may not only limit the adjustment capacity of policymakers at a given point in

time, but also increase the probability that the next elected government will respond to a different set of preferences and thus renege on the promises of the incumbents. Broadly, it may increase the perceived risk of political instability.

A higher degree of socio-political contestation would thus increase market perceptions of the degree “implementation risk”, in both the short and long term. Fiscal and structural adjustment programmes are normally multi-year affairs, spanning the term of more than one administration: in developed democracies, investors need to assess the resiliency of a sovereign’s commitment through the ups and downs of the democratic process.

Moving one step further, on the basis of the analysis carried out so far we can formulate a prediction of which combinations of formal checks and balances and socio-political contestation in the domestic political system should be liked or disliked by financial markets. The matrix in Figure 3.3.4-1 displays the policy outcomes to be expected from a combination of different degrees of formal checks and balances and socio-political contestation.

**Figure 3.3.4-1 Formal checks and balances, socio-political contestation and credibility outcomes**

		Formal Checks and Balances	
		<i>High</i>	<i>Low</i>
Socio-political contestation	<i>High</i>	High resistance to default; High resistance to consolidation	Low resistance to default; High resistance to consolidation
	<i>Low</i>	High resistance to default; Low resistance to consolidation	Low resistance to default; Low resistance to consolidation

As a result, we can rank the expected policy outcomes according to the likely preferences of financial markets as understood so far. The following results emerge:

1. Financial markets should find most credible a developed democracy characterized by the combination of a high number of formal veto players and low socio-political contestation.
2. Financial markets should find least credible a developed democracy characterized by the combination of a low number of formal veto players and high socio-political contestation.
3. The remaining two configurations represent intermediate outcomes.

### **3.3.5 Testable hypotheses**

In Section 3.3 we have developed the second pillar of our theoretical framework, concerned with the domestic political sources of market credibility for developed democracies, and applicable given investors' behavioural features identified in section 3.2.

#### **Proposition 2:**

*Whenever default risk is perceived as salient, and particularly in a sovereign debt crisis, investors consider the domestic political backdrop when assessing sovereign risk in developed democracies.*

From this theoretical proposition, we develop three hypotheses concerning the relationship between the features of the national political system and sovereign credibility. Hypothesis 2.1 presents the two alternatives derived from the "credibility" and "consolidation" literatures and is focussed on the role of formal veto players. Hypotheses 2.2 and 2.3 are derived from our theoretical contribution on the role of socio-political contestation and its interaction with formal veto players.

#### **Hypothesis 2.1:**



*Under the conditions specified above, the formal veto player configuration within the domestic political system influences sovereign risk perceptions in financial markets.*

- In particular, a higher number of formal veto players reduces sovereign risk perceptions in financial markets, since these reinforce the credibility of the sovereign's commitment to debt repayment.*
- Alternatively, a higher number of formal veto players increases sovereign risk perceptions in financial markets, since these are an obstacle to budget consolidation and reform.*

**Hypothesis 2.2:**

*The formal veto player configuration is not sufficient for understanding markets' attitudes towards sovereign borrowers under the conditions specified above. Investors consider the level of socio-political contestation when assessing sovereign risk.*

*In particular, a higher level of socio-political contestation increases sovereign risk perceptions in financial markets, since it is an obstacle to current budget consolidation and reform as well as increasing the likelihood of sudden policy changes in the future.*

**Hypothesis 2.3:**

*The interaction of—the formal veto player configuration and the degree of socio-political contestation matters for financial markets. In particular:*

- The combination of a higher number of formal veto players and lower socio-political contestation reduces sovereign risk perceptions in financial markets.*
- The combination of a lower number of formal veto players and higher socio-political contestation increases sovereign risk perceptions in financial markets.*

### 3.4 INTERNATIONAL INFLUENCES ON SOVEREIGN RISK PERCEPTIONS

As financial markets are increasingly integrated and cross-border bond ownership increases, a sovereign default decision is unlikely to be taken exclusively on the basis of domestic economic and political considerations. Moreover, external interests are more likely to play a role when the possibility of international financial assistance, be this from an international agency such as the IMF or from partners in a monetary union or from bilateral sources, is introduced.

Thus, it would seem rational for an investor aiming to identify those countries that are more likely to repay their debt to consider not only the domestic political environment, but also the international context. The possibility that international considerations may even prevail over domestic political considerations, both in the default decision process and in markets' choice of discriminatory factors, cannot be ruled out.

Accordingly, in this section we add a new international perspective to the existing literature on the domestic political determinants of sovereign risk premia, always within the context of our focus on the political decision-making process and related to the case of developed democracies.

When looking at the international context, we need to recognize that these issues are viewed from two different perspectives:

- First, the sovereign borrower's perspective, where domestic policymakers weigh the costs and benefits of default for their constituency, both domestically and internationally.
- Second, the international lender/assistance provider's perspective, where foreign or international decision-makers weigh the costs and benefits of providing international help for their constituencies.

In this section, we develop theoretical hypotheses by considering both perspectives and building on the insights provided by the international economics and political economy literature.

### 3.4.1 Sovereign borrower attitude towards externally held debt

As seen in Chapter 2, the very existence of international lending has troubled international economists ever since they first approached the issue in the early 1980s. In their seminal paper of 1981, Eaton and Gersovitz highlight the puzzle of external debt repayment in the context of the lack of enforcement mechanisms at the international level: why would a sovereign voluntarily impose the burden of external debt repayment on its constituencies? With this observation, they highlight the inherently political nature of a debt default decision and kick start a thirty-year attempt in the literature to unearth the apparently scarce incentives for sovereign debt repayment at the international level.

The focus of analysis of international economists in Eaton and Gersovitz's tradition is on the specific case of the type of external debt that has typically characterized emerging market economies in the last forty years, that is on debt issued to foreigners, often in a foreign currency, and in the context of a legal vacuum as to the lenders' capacity to enforce repayment. In contrast to emerging markets, over the last few decades developed democracies have been able to finance themselves by bonds issued in local currency and under local legislation. These bonds were primarily intended for domestic investors, although with global integration of financial markets an increasing share of these domestic bonds has been acquired by foreign investors, both private and sovereign, for both investment and reserve-building purposes.

Still, the basic observation remains that, where government bonds are mostly held by foreigners, foreign bond holders will bear the majority of the costs of a sovereign default, while domestic constituents will bear the costs of consolidation, creating a clear incentive for the sovereign to opt for the first option. Thus, *ceteris paribus*, investors should be more suspicious about the debt repayment prospects of a sovereign that has placed most of its debt abroad, and therefore demand a higher risk premium on government bonds the higher the share of debt held abroad. Read through the lenses of our framework based on political representation, it is easy to see how foreign bondholders are excluded from the domestic democratic process, meaning that their interests will easily fall behind the preferences of the domestic constituency in the eyes of the sovereign borrower.

However, assuming that the domestic political debate will be completely insensitive to external creditor interest is to forget two key mechanisms of the international and domestic political systems respectively: “issue linkage” within the international system, and bargaining and cross-issue negotiation within the domestic political process.

The international economics literature applies the “issue linkages” approach to highlight how the possibility of punishment through trade sanctions can function as an incentive to sovereign debt repayment (Bulow and Rogoff, 1989a). Applied to the case of today’s developed democracies, we can more broadly see how cross-border portfolio flows tend to be associated with direct investment and trade flows, and therefore how a sovereign borrower may consider a broader set of factors when deciding on debt repayment. Defaulting on externally held government bonds may lead to indirect or “second-round” effects that hit domestic constituencies, such as a disruption of external financing for private corporates and a reduction in international trade flows (IMF, 2008). Moreover, the “second-round” effects may involve the political as well as the economic arena. Thus, additional considerations can involve economic links such as trade integration as well as political considerations. For countries in the EMU, the risk of being expelled from the club as a consequence of a default may act as a powerful incentive to consolidating public finances rather than defaulting on their debt.

To the extent that the second-round consequences of defaulting on government debt held by foreigners fall on at least a subset of domestic constituents, the distribution of power within the political system becomes important in defining how this is reflected in a political default decision. Indeed, the domestic political configuration can in turn reinforce or weaken the impact of “issue linkages” and “second-round” effects in a sovereign default decision. External creditors are de jure excluded from direct participation in the domestic political debate. However, a political system that empowers a subset of the domestic society that would suffer from the indirect effects of default could increase the chances of the external creditors’ interests being heard. In particular, when the interested subset of domestic constituents controls a veto point or obtains representation through cross-issue bargaining, then default is more likely to be averted, even though the direct costs are expected to fall mostly on external bondholders.

From these observations, we can derive the theoretical expectation that strong financial or trade integration of a sovereign borrower vis-à-vis its external creditors should temper markets' worries about incentives to default, particularly when bondholders are mostly abroad.

### **3.4.2 International interests and external bail-out**

Foreign creditors are treated in the traditional economics literature as having no say in a sovereign borrower's default decisions. However, when the possibility of external assistance is considered, a direct role for external interference in the domestic default decision is introduced.

Bilateral sovereign assistance is a possibility; indeed, the provision of implicit (rather than explicit) help for ailing public or private sector entities was fostered in recent years by the increasing role that sovereign wealth funds play in international financial markets. Still, the traditional channel for international financial assistance for ailing sovereigns is the International Monetary Fund, while Euro area countries can benefit from the financial backstops provided by European partners and institutions (normally in association with the IMF). Indeed, the increase in cross-border ownership of government debt has often come in parallel with stronger links in other financial, economic and political areas. In Europe, for example, cross-border ownership of government bonds among EMU countries was one of the consequences of stronger monetary and financial integration. Similarly, EU accession for Eastern European countries also increased Western European countries' interest in their financial assets.

The very availability of the IMF or the EU as lenders of last resort *ceteris paribus* clearly reduces the overall risk of default. Moreover, it is often recognized that the so-called "IMF anchor", where a country is committed to following the dictates of the IMF in terms of policymaking, as well as EU and EMU accession anchors, have helped to increase or re-establish the credibility of troubled governments in financial markets. However, not all countries theoretically enjoying the same "right" of access to external bail-out in fact obtain access to external funds with the same promptness or the same conditionality.

When the possibility of explicit or implicit international financial assistance is introduced, the sovereign default decision is extended to encompass a second layer of political negotiations, beyond those carried out within the domestic political system. When bail-out negotiations take place, an international agency or stronger sovereigns assess the costs and benefits of providing international help for their respective constituencies, while an ailing sovereign borrower weighs the cost of the conditions attached to the loans against the benefits of the bail-out.

As a result, indirect economic and political motivations of a stronger sovereign or international agency providing assistance can become important determinants of the final debt repayment outcome for a sovereign in difficulty. Expressed within the framework of our analysis, this means that foreign sovereign or international institutions<sup>53</sup> will hold veto power in the default/consolidation/bailout decision, and will thus potentially act as de-facto veto players in the process. In this context, their preferences will be important for the outcome of the decision.

While financial interests are likely to be important in driving bail-out decisions, the cost and benefit assessment of both the stronger and the weaker sovereigns is unlikely to be always and exclusively limited to financial calculations. On the contrary, they are likely to consider the consequences for bilateral relations, as well as more broadly for possible multilateral institutions and alliances that may be impacted by the decision. The stronger credit may decide to bail out a military ally in order to avoid geopolitical instability; or, the weaker credit may be willing to make bigger sacrifices in order to return public finances to sustainability when this is based on common beliefs about the desirability of a given set of policies. For example, China's rumoured purchases of Spanish and other EMU countries' government bonds and of Greek assets at the height of the European sovereign crisis may not have been entirely motivated by the prospect of financial gain. Similarly, in her speech to the German Parliament in May 2010, German Chancellor Angela Merkel gathered support for providing financial support to Greece by stressing the need to come to the defence of the EMU. And Italy's technocratic government's ideological alignment with EU

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<sup>53</sup> This includes both existing creditors and potential rescuers, which will become official creditors as a result of a bail-out.

rules and ideas contributed to the smoother implementation of austerity measures from the end of 2011.

The literature on the political economy of IMF lending underscores the role of the financial and economic interests of the stronger sovereigns (directly or through an agency such as the IMF), as well as of their own political and military goals, in influencing bail-out outcomes. In particular, in spite of claims of political independence, actual lending behaviour “strongly suggests a pattern of US interests and preferences” (Woods, 2003, p. 10).

In a large-n analysis of IMF conditionality agreements, Oatley and Yackee (2004) find that the size of IMF loans is influenced by US financial and foreign policy interests, with larger loans being extended to countries “heavily indebted to American commercial banks” and “governments closely allied to the United States” (2004, p. 415). Barro and Lee (2005) also note that IMF lending is sensitive to “a country’s political and economic proximity to some major shareholding countries of the IMF - the United States, France, Germany and the United Kingdom”, where political proximity is measured by voting patterns in the United Nations and economic proximity by volumes of bilateral trade (2005, p. 2). Much of the case study literature on the political economy of IMF lending highlights in particular the role of US interests in driving IMF lending decisions and conditionality agreements: for example, Momani (2004) reviews Article IV consultation papers related to IMF-Egypt agreements and finds that the US intervened to obtain more lenient terms for Egypt in two out of four occasions (1987 and 1991), in order “to preserve the political stability of the pro-Western Egyptian regime during a particularly turbulent time” (Momani, 2004, p. 880).

In the traditional models of sovereign debt presented in Chapter 2, as well as in the traditional literature on sovereign credibility, international creditors are generally treated as voiceless in a sovereign default decision, thus leaving the borrower to judge independently the relative appeal of debt repayment versus default on the basis of its domestic political factors as well as its own international political interests.

Meanwhile, our theoretical framework, introducing the possibility of external assistance, adds a possible channel for the expression of external preferences in the default/consolidation/bail-out decision. The empowerment of external interests is likely to

be even greater within the EU and particularly with the EMU structure, where an institutional structure exists that facilitates joint decision-making, consistent with the fact that the default of one sovereign could potentially have consequences far beyond the individual sovereign's borders and become a threat both to other countries and to the overall project. This analysis suggests that investors will consider the preferences of de-facto veto players in the international sphere when assessing the likelihood of debt repayment, rather than focussing exclusively on the domestic veto player constellation.

External creditors and international institutions will also be more likely to provide assistance the higher the perceived cost of default for their constituencies. Consequently, investors should be more at ease about eventual debt repayment and recovery rates, and therefore require lower risk premia, when foreign bond ownership is concentrated in countries with strong economic and political links with the borrower, and when they represent important assets for strong and well organized creditors (normally banks). In particular, when creditor countries have a higher level of financial or economic exposure to the debtor country, or see it as strategically important for their interests in other areas, markets should consider that there is a higher likelihood of bail-out and a lower likelihood of default.

### **3.4.3 Summary of IPE factors likely to impact sovereign risk perceptions**

Our approach to sovereign risk is founded on the recognition of sovereign debt and default as having strong political connotations. We investigate sovereign creditworthiness as a function not only of the political trade-offs generated by traditional options of "default" or "consolidation", but also of those generated by the third option of external "bail-out".

Thus, we recognize that international as well as domestic political economic factors may come into play in the decision, not only because of foreign bond ownership, but also because of the possibility of external bail-out.

As a result, when considering the case of a modern developed democracy with both domestic and external creditors, strong economic, financial and political links at the



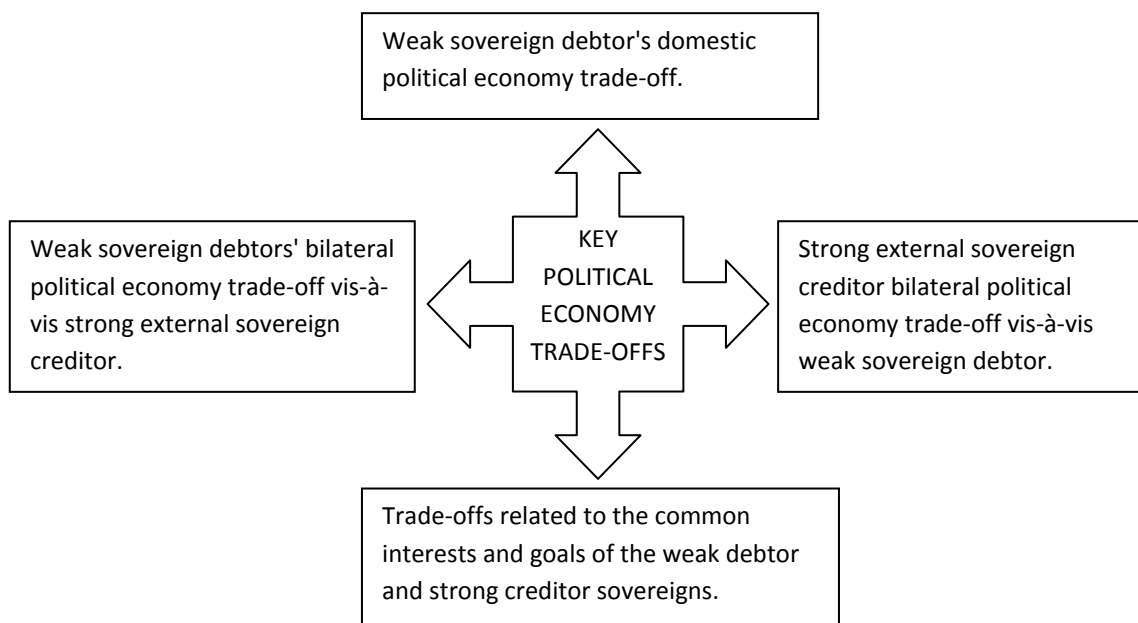
international level, and the option of receiving an external bail-out, we identify a more complex set of trade-offs that may come into play to determine the overall likelihood of sovereign default, including both domestic and international aspects.

The matrix in Figure 3.4.3-1 summarizes the four sets of domestic and international political economy trade-offs identified so far. The top right-hand side quadrant represents the domestic political dynamic, the remaining three quadrants represent the three facets of the international political economy trade-off that emerge from the discussion in the earlier part of this section:

- First, there is the debtor's bilateral political economy trade-off vis-à-vis its external creditors. A debtor is more unlikely to default on its debt to external creditors the higher the direct and indirect costs of losing credibility with those creditors are perceived to be. The more important the external creditor is for its economic and overall survival, the more likely it is that it will succumb to pressures to adjust rather than restructure. Thus, a sovereign that is more dependent on its creditors as export markets or sources of investment capital should require lower risk premia in financial markets.
- Second, there is the creditor's bilateral political economy trade off vis-à-vis the fledging debtor. The sovereign creditor is more likely to be willing to bail out or otherwise assist the debtor country if it faces a high level of exposure (and thus potential losses) towards the debtor country, either directly or indirectly through its banks or companies. This means that strong financial and/or trade interests of the sovereign creditor (or creditors), particularly when concentrated, should lead to somewhat lower risk premia in financial markets.
- We also add a third aspect, related more broadly to the sovereign debtor's and its creditors' common interests, goals and beliefs. Examples of this may be a common commitment to the success of a monetary union, a strategic or military connection, or shared beliefs in the appropriate policies to follow (neoliberal, Keynesian, etc). The stronger these connections are, the more likely it is that some form of collaboration will develop, reducing, on the one hand, the likelihood of outright

default and increasing, on the other hand, the likelihood of bail-out. Thus, sovereign risk premia should be lower when debtor and creditor countries have strong commitments to common interests, goals or ideologies.

**Figure 3.4.3-1 Domestic and International Political Economy Trade-Offs in the sovereign default decision**



As noted in section 3.4.2, a key implication of this analysis is that external actors, and particularly strong external creditors, can in some cases become important enough in the process to act as de-facto veto players in the default/consolidation/bailout decision. External de facto veto players may influence the decision (and sovereign risk perceptions) in either direction, depending on their preferences: they could refuse external aid, thus increasing the perceived likelihood of default, or actually persuade a debtor to accept a bail-out with otherwise undesired conditionality, thus reducing sovereign risk perceptions. Finally, the importance of the external veto player preferences implies that the domestic political dynamic in key creditor countries may become an important determinant of market perceptions of external bailout probabilities and therefore of sovereign risk perceptions in the debtor country.

### 3.4.4 Testable hypotheses

In Section 3.4 we have developed the third pillar of our theoretical framework, concerned with the role of international political economy factors in driving investor preferences, and applicable given investors' behavioural features identified in section 3.2.

#### **Proposition 3:**

*Whenever default risk is perceived as salient, and particularly in a sovereign debt crisis, investors consider the international political economy context, as well as the domestic political backdrop, when assessing sovereign risk in developed democracies.*

From this broad theoretical proposition, we develop two more specific hypotheses concerning the relationship between international political economy conditions and sovereign risk perceptions. Hypothesis 3.1 focuses on the role of external de facto veto players, while 3.2 considers the degree of proximity between debtor and creditor countries along the three axes identified in section 3.4.3.

#### **Hypothesis 3.1**

*Under the conditions specified above, investors consider the preferences of external de facto veto players when assessing sovereign risk.*

#### **Hypothesis 3.2**

*Under the conditions specified above, greater economic, financial and ideological proximity between sovereign debtor and external creditors reduces sovereign risk perceptions in financial markets. Specifically:*

- *Stronger financial and/or trade dependence of the sovereign debtor vis-à-vis creditor countries reduces sovereign risk perceptions in financial markets, since it reduces the likelihood of default.*

- *Stronger financial and/or trade interests of the creditor countries vis-a-vis the sovereign debtor reduces risk perceptions in financial markets, since it increases the likelihood of external bail-out.*
- *Evidence of strong commitment of the sovereign debtor and/or creditor country to common goals, interests, and ideologies reduces sovereign risk perceptions in financial markets, since it increases the likelihood of collaboration.*

### **3.5 CONCLUSION**

Chapter 3 has developed the theoretical framework that both motivates and underpins our analysis of sovereign risk perceptions in financial markets. From the theory, some testable hypotheses were derived that will be tested in the empirical investigations that follow.

The theoretical framework is composed of three pillars: the first deals with financial market behaviour, the second focuses on the relationship between the domestic political economy landscape and sovereign credibility in financial markets, while the third covers the role of the external political economy context.

First, we introduce a dynamic approach to financial markets, arguing that a static categorization of sovereign borrowers into developed democracies and emerging markets may not hold at all times, and particularly not at times of fiscal stress. Instead, we suggest that the depth and breadth of investor analysis evolves over time, particularly in response to shocks that modify perceptions about the saliency of default risk.

Second, we consider the influence of the veto player constellation in the domestic political system on investor risk perceptions during a sovereign debt crisis. We argue that an exclusive focus on the formal veto player constellation is not sufficient, and introduce a role for socio-political contestation. Specifically, we formulate the expectation that financial markets will prefer lower levels of socio-political contestation, as well as the combination of a high number of formal veto players and low socio-political contestation.

Finally, we broaden the scope of the theory from the dominant focus on domestic factors to include political economy aspects belonging to the international sphere. Specifically, we

argue that the preference of external de facto veto players will have a meaningful influence on sovereign risk perceptions, particularly when the possibility of external bail-out emerges, and that financial markets will assess sovereign borrowers more favourably when there is greater economic, financial and ideological proximity between debtor and creditor countries.

Chapter 4 will present an empirical framework that operationalizes our theory and creates the conditions for empirically testing our hypotheses in two in-depth event studies covered in Chapters 5 and 6.

## Chapter 4

### *The empirical framework*

#### **4.1 INTRODUCTION**

This chapter translates the theoretical structure introduced in Chapter 3 into an empirical framework. This will in turn set the stage for empirically testing the theoretical hypothesis in Chapters 5 and 6.

We proceed in three stages. In Section 4.2, we identify an appropriate metric for our dependent variable, sovereign default risk perceptions in financial markets. In Section 4.3, we present the methodology framework of our empirical analysis. Finally, in Section 4.4 we present the background of the event studies to be analysed in the following chapters. Specifically, we compare the key aspects of the Greek and Irish sovereign debt crises, as well the macroeconomic backdrop in each country and the political economy factors identified in the theory as explanatory variables.

#### **4.2 MEASURING MARKET PERCEPTIONS OF SOVEREIGN RISK**

The key dependent variable explained by our theory is investors' assessment of sovereign default risk, itself a reflection of the credibility of the sovereign, as described in the literature in the tradition of North and Weingast (1989).

Financial markets themselves provide information on the credit risk attributed to a sovereign at a given point in time. Indeed, sovereign risk perceptions can impact a variety of asset classes, including bonds, equities and foreign exchange. That said, they expressed most precisely in the price of two financial instruments: government bonds and sovereign Credit Default Swaps (CDS). In fact, theoretically, for a given entity, bond spreads over a

“risk-free” rate and CDS spreads “can be thought as prices for the same underlying credit risk” (Arce, Mayordomo and Peña, 2011, p. 2).

Government bonds are by far the more liquid and widely used of the two, so our empirical analysis will primarily focus on these – specifically, we will use government bond spreads as the main reference metric for sovereign risk perceptions in our event studies. The message from the CDS and the bond markets is normally highly correlated, since arbitrage opportunities are quickly exploited, but an integration of the message from both markets can provide additional information and improve the robustness of our empirical tests. Thus, we will also make occasional reference to CDS spreads when necessary in order to reinforce or counter-check the message of government bond spreads.

Both instruments, and how their prices relate to sovereign default risk perceptions, are described in the following two sections.

#### **4.2.1 Government bond spreads**

The rate of interest on government bonds represents the return required by investors to provide financing to a sovereign borrower. Thus, interest rates carry important information on sovereign default risk, and are traditionally used in quantitative studies in this area.

Specifically, bond yields represent the total rate of return on any given bond purchased at a given point in time and held to maturity, the so-called “yield to maturity” (Bodie et al., 2007). Reference is normally made to so-called “benchmark bonds”, that is the standard bonds used to assess yields at each given maturity and for the construction of homogeneous time series.

Bond yields reflect two major forms of risk (Alesina et al., 1992)<sup>54</sup>:

- Default or credit risk. This is the risk that the bond will lose value due to factors related to the probability that the sovereign will fail to meet its obligations to

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<sup>54</sup> There are additional factors which may influence differences in bond yields across countries, including technical factors such as liquidity, taxation and global risk aversion. However, the most important fundamental distinction is that between currency and credit risk.

service and or to repay its debt. This includes risk of outright default, restructuring or credit rating downgrade (Fabozzi, 2005).

- Inflation or currency risk. This is the risk that the bond will lose value as a consequence of currency devaluation or higher inflation, and is relevant in particular for bonds issued in domestic currency.

Since default and inflation risks are intertwined, bond yields denominated in different domestic currencies do not normally allow for direct cross-country comparison of pure credit risk. While for domestic-denominated government bonds inflationary erosion can ultimately be considered a form of default, the credit risk component normally needs to be identified first in order to be able to make cross-country comparisons. One approach is to strip out currency risk by comparing bonds issued by different countries in the same foreign currency. Another approach is to isolate the sovereign credit risk element by subtracting the country's swap rate, representing the presumably low-risk premium on a group of international banks. In both cases, the results may, however, not be entirely satisfactory, as there is limited availability and scarce or differing liquidity of dollar denominated sovereign debt in advanced democracies, and as the swap rate may not always represent an appropriate risk-free or almost risk-free comparator.

As noted in Chapter 1, however, sovereign risk premia can be more easily extrapolated and compared for Euro area countries. Indeed, within the EMU, differentials in exchange rate risk premia across member countries have been totally or mostly eliminated (as pointed out, for example, by Codogno et al., 2003)<sup>55</sup>, leaving default risk premia as the main driver of sovereign bond yield differentials across the region.

Moreover, there is general agreement about using the German government bond yield as the "risk-free" benchmark within the region. Specifically, the convention is to look at each country's bond yield differential against its German equivalent in order to calculate the

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<sup>55</sup> Academic papers normally assume that exchange rate risk has been totally eliminated, on the basis of the crucial assumption of full credibility of the monetary union. In practice, as mentioned in Chapter 1, it cannot entirely be ruled out that concerns about the reversibility of the union may lead to the return of some exchange risk premium, at least for some countries and at specific points in time.



“spread”. Indeed, all but one of the quantitative studies on Euro area bond market differentials described in Chapter 2<sup>56</sup> use interest rate spreads to German bonds as the reference measurement. We will adopt the same convention in our empirical analysis, while also referring to overall bond yields when the overall funding costs for a sovereign becomes a crucial issue.

Along the bond yield curve, we will focus in particular on the ten-year maturity, while mentioning shorter maturities if necessary. The ten-year yield is normally considered the key benchmark point for medium-term creditworthiness considerations, and is also the one that is of highest interest to policymakers (Mosley, 2003).

Using the German government bond yield as the “risk-free” rate for calculating bond spreads has the obvious advantage of being consistent with the majority of the literature and not introducing possible distortions from additional asset markets (for example fluctuations in bank creditworthiness perceptions in the asset swap market). Meanwhile, it has the down- side of possibly factoring in the additional liquidity and safe-haven-flows advantages of the German bond market<sup>57</sup>. This is, however, unlikely to distort our political economy findings, given the nature of our research<sup>58</sup> and the fact that the much larger moves observed in Greek and Irish bond yields than in German bond yields dominated moves in spreads during the period under consideration in our event studies. As a reference, the Greek ten-year government bond yield rose from 4.9% on December 1<sup>st</sup>, 2009, to 12.4% on May 7<sup>th</sup>, 2010. The German ten-year bond yield fell from 3.2% to 2.8% during the same period. Meanwhile, the Irish ten-year bond yield rose from 5% on August 2<sup>nd</sup>, 2010, to 9.4% on November 30<sup>th</sup>, 2010, while the German ten-year bond yield was actually unchanged overall at 2.7% over the same period.

As a broader clarification, it is important to note that exchange rate and default risk premia are the two major conceptual components of risk premia reflected in government bond

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<sup>56</sup> See Chapter 2, Section 2.4.2.

<sup>57</sup> Ejsing, Grothe and Grothe (2012), for example, show how “safe-haven flows”, as well as declines in expected monetary policy rates, contributed to disguising the increase in default risk premia in German and French government bond yields. We will briefly return to this issue in Chapter 7.

<sup>58</sup> We are not, in the finance domain, looking to explain micro-moves in bond prices.

yields, as highlighted for example by Alesina et al. (1992) and by Lemmen and Goodhart (1999); we focus on these two fundamental components in our political economy analysis. That said, finance experts more interested in the micro-structure of bond markets point out that government bond yield differentials can also reflect other factors, namely liquidity risk and differences in taxation and capital controls, as highlighted for example by Codogno et al. (2003) and by Favero (2009). With EMU, capital controls were removed and differences in taxation were mostly eliminated. Meanwhile, liquidity differences - driven mainly albeit not entirely by the outstanding size of government debt - mostly persisted, although a larger, integrated investor base provided some offset, as shown for example by Codogno et al. (2003). As we will see in Section 4.3.2, liquidity risk differentials are minor between the two bond markets under consideration in our event studies.

#### **4.2.2 Sovereign Credit Default Swap spreads**

Credit Default Swaps, or CDS, are financial instruments used to transfer credit risk from one entity to another. By definition, CDS risk spreads represent the most immediate measure of pure default risk in financial markets.

The CDS “premium” or “spread” can loosely be interpreted as the cost of insuring against the default of the reference entity. More technically, a CDS is defined as a credit derivative contract where the buyer pays a periodic fee, typically expressed as a percentage (in basis points per annum) on the notional amount, in return for a payoff by the seller if the reference entity defaults (JPMorgan, 1999). For example, a CDS premium of 100 basis points means that it costs about 100,000 dollars to buy protection on 10 million dollars’ worth of underlying bonds. The CDS contract specifies the “event” and conditions that identify a default situation and trigger the compensatory payment<sup>59</sup>.

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<sup>59</sup>The definition of the “insured event” is an integral part of the CDS contract. Reference is normally to a “credit event”. Credit events triggering CDS payments typically include the following: bankruptcy (only for corporate entities), obligation default (that is technical default, as for example the violation of a bond covenant), failure to pay (failure of the entity to make any due payments), repudiation/moratorium (compensation is required after a specific government action, as for example a payment delay), restructuring (reduction or renegotiation of debt; this was eliminated in US contracts since 2009). The type of settlement is typically agreed up-front: it can be physical settlement (where the protection buyer delivers the underlying bond in exchange for

The CDS market has grown exponentially in the last fifteen years and credit default swaps are now the most widely traded credit derivatives. CDS were initially created, and are often used, in order to “hedge” the underlying credit risk, transferring this to the counterpart. For example, a corporate with a large exposure to a specific debtor may reduce the riskiness of its operations by buying a CDS on that entity, in order to transfer the credit risk on the CDS issuing counterpart (normally a bank). However, credit default swaps are also often traded in order to take outright positions on the default risk of individual entities. For example an investor may think that the markets overstate the probability of default of a given entity and therefore “sell protection” or CDS on that entity in the expectation that the price of that protection will fall. Conversely, an investor may think that the markets understate the default risk of a given entity and therefore “buy protection” or a CDS on that entity in the expectation that the price of that protection will go up.

Credit Default Swaps on sovereign debt are known as sovereign CDS. The CDS premium is determined in financial markets on the basis of the expected default risk of the individual sovereign. Thus, sovereign default spreads can be interpreted as real-time measures of the market perception of sovereign risk. They also tend to be easily comparable across countries, since the contract denominations tend to be homogeneous<sup>60</sup>. However, CDS are a relatively recent creation, are traded over-the counter<sup>61</sup>, and are much less liquid<sup>62</sup> than government bonds. Moreover, the prevailing US dollar denomination introduces an element of currency risk. Therefore, sovereign CDS spreads can be distorted by factors unrelated to sovereign risk assessment, such as differences in market liquidity and overall demand/supply imbalances. As discussed above, factors including liquidity and overall risk aversion can also impact government bond yields and spreads. However, government bonds have the advantage of higher market liquidity. For example, by March 2010 the

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compensation), or cash settlement (where the protection buyer receives the difference between the bond value at the time of the settlement and its nominal value) (Deutsche Bank Research, 2009).

<sup>60</sup> The majority are US dollar denominated.

<sup>61</sup> Over-the-counter trading means that they are traded directly between two parties. Over-the-counter derivatives do not need be as standardised as products traded on exchanges, and they carry counterparty risk.

<sup>62</sup> Although trading activity has increased since 2008 (Arce et al., 2011)

Depository Trust and Clearing Corporation (DTCC) CDS net notional value was approximately 3% of the volume of bonds outstanding for the Greek sovereign and 7% for the Irish sovereign<sup>63</sup> (Fontana and Scheicher, 2011). Along with a much higher degree of standardization (particularly within the Euro area), this leads to higher transparency and more consistently reliable price signals in government bonds than in CDS markets.

### **4.3 METHODOLOGY FRAMEWORK OF THE EMPIRICAL TESTS**

#### **4.3.1 Choice of the empirical method**

Our empirical tests will rely on event studies. This choice represents a departure from traditional approaches to the analysis of sovereign credit risk in OECD economies. As seen in Chapter 2, studies in this area have typically privileged a macro, quantitative approach. Alesina et al. (1992) used panel regression to assess how much default risk was priced in European government bond yields at the time. Lemmen and Goodhart (1999) also used panel data regression analysis. About five years later, Codogno et al. (2003) used a variety of quantitative techniques to study the evolution of Euro area government bond spreads and separate liquidity from default risk factors. Similar quantitative approaches have been employed in the studies carried out since the start of the sovereign debt crisis. However, as Chapter 2 showed in more detail, the quantitative studies conducted so far have provided only partial answers and have been unable to deal with political and political economy factors.

Political and political economy factors, which are often much harder to quantify than economic variables, are the core of our research project. A quantitative analysis would be unlikely to generate robust results, given the limited data-sets on sovereign debt crisis at the time of writing. Instead, an in-depth small-n approach appears necessary in order to

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<sup>63</sup> The ratio is even lower for the strongest Euro area countries, a little above 1% for Germany and less than 1% for France in the same period (Fontana and Scheicher, 2011). The net notional amounts published by the DTCC are calculated by “netting the sum of the notional values of protection bought by net buyers with respect to any single reference entity” (BIS, 2009). Others consider bid-ask spreads (Favero et al., 2007) or the number of zero price moves over defined periods (Fontana and Scheicher, 2011). Unsurprisingly, the message remains one of higher market liquidity in the government bond than in the sovereign CDS market.

obviate the shortfalls of necessarily synthetic large-n quantitative studies. Our aim is to identify casual mechanisms within a context of high causal complexity. A qualitative approach thus appears more appropriate for our aim than quantitative estimates: the qualitative approach will allow us to verify the causal relationships more accurately than a quantitative approach, as well as to tackle areas where the quantitative evidence is not long enough or broad enough.

Thus, we opted for in-depth events studies for our empirical analysis. In support of this choice we note that, in contrast to the lack of qualitative approaches in the analysis of sovereign risk in developed democracies, comparative event studies have been used with success in the study of sovereign debt crisis in emerging markets, for example by McIntyre (2001).

In particular, our approach integrates a comparative analysis of two events, the Greek and Irish sovereign debt crises, and detailed event tracing within each episode. The event studies selection aims to maximise unit homogeneity, variability in the dependent variable within the area of investigation, and variability in the independent variables<sup>64</sup>. However, as suggested by King, Keohane and Verba (1994)<sup>65</sup>, the real world experience of our analysis does not allow for a strict “controlled comparison”, as defined for example by George and Bennett (2005, p. 151 )<sup>66</sup>. Sovereign borrowers can vary over many dimensions and sovereign debt crises are very complex events, involving a large variety of financial, economic, political and social factors. Against this complex backdrop, our theoretical framework develops along multiple hypotheses, rather than engaging with just one issue of investigation. In this light, a small-n approach may carry risks of under-determination. In

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<sup>64</sup> The features of these case studies that motivated the choice will be discussed in more detail in Section 4.2.6.

<sup>65</sup> King et al. (1994 p. 201) argue that “in political research that compares countries with one another, controlling to achieve unit homogeneity is difficult: any two countries vary along innumerable dimensions”.

<sup>66</sup> George and Bennett (2005, p. 151) define “controlled comparison” as “the study of two or more instances of a well-specified phenomenon that resemble each other in every respect but one”. However, they admit, “such control is very difficult to achieve”.

order to better identify causal mechanisms and reinforce the determinacy of the analysis, we introduce detailed event tracing within each episode<sup>67</sup>.

By nature, the selected empirical approach will be more effective in assessing whether and how one or more variables matter than in quantifying the magnitude of their contribution to the observed outcomes.<sup>68</sup> The aim of our empirical analysis is to test our hypothesis against the empirical reality, along the lines of the “theory-confirming case study” as identified by Lijphart (1971). However, we need to recognise that the complexity of the issues and variables under consideration, in the context of a relatively novel theoretical approach, may constrain our capacity to derive definitive answers<sup>69</sup>, particularly with regard to the generalization of the results to broader classes of sovereign bonds (EMU, developed democracies). In this light, some of results may have elements of a “plausibility probe”, as described for example by George and Bennett (2005)<sup>70</sup>. Any residual uncertainty may require further verification and refinement and provide ground for future studies<sup>71</sup>.

### 4.3.2 Event study selection

In the previous section, we discussed the key criteria that informed our event study selection. In this section, we highlight the key features of the Greek and Irish experiences that make them a good choice in relation to the mentioned criteria and define more precisely the period of investigation. In Section 4.4 we will expand many of the points made here and provide a more complete overview of the Greek and Irish crises, of both countries’

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<sup>67</sup> Both King et al. (1994) and George and Bennett (2005) argue that introducing process tracing in small-n analysis reduces the risk of under-determination, while George and Bennett (2005, p. 214) argue that process tracing can be useful when pure “controlled comparison” is not realistic.

<sup>68</sup> This is a general limitation of case studies identified by George and Bennett (2005).

<sup>69</sup> As suggested by King et al. (1994, p. 76), uncertainty about casual inferences “will never be eliminated”, but this “should not suggest that we avoid attempts” at casual inference.

<sup>70</sup> Notably, a certain degree of residual uncertainty is not unusual in studies that engage with a mix of domestic and international factors, such as for example that of Evans, Jacobson and Putnam (1993) on “Double edged diplomacy: international bargaining and domestic politics”.

<sup>71</sup> In Chapter 7, we will outline suggestions for future research.

macro-economic situation at the onset of the crisis, and of the political economy features identified as explanatory variables in our thesis.

The first reason for choosing Greece and Ireland is that they are both relevant to the research question and theoretical hypothesis, since both countries were hit by the Euro area sovereign debt crisis and needed to access external support as a consequence. Second, they provide variation in our dependent variable, as the sovereign debt crisis proved much longer and more severe in Greece than in Ireland, with this reflected in government bond spread moves<sup>72</sup>.

Third, Greece and Ireland differ significantly in terms of our key explanatory variables (often being at opposite extremes on the Euro area spectrum). On the one hand, Greece has a low number of formal veto players, a high level of socio-political polarization and contestation, and a low level of economic and financial integration with the rest of the EMU and the global economy. On the other hand, Ireland has a higher number of formal veto players, a low level of social contestation and polarization on economic issues, and is highly integrated with the rest of the EMU and the global economy.

Fourth, the two countries display similar characteristics in residual areas. First of all, they are both EMU countries: EMU countries share the central bank, a common macro-policy framework and similar economic institutions. This markedly increases their comparability and therefore the likelihood of obtaining robust empirical results.

Crucially, they are both small economies within the Euro area, reducing the risk that differing outcomes may be related to differences in size. Greece accounts for 2.6% of Euro area GDP and 3.4% of Euro area population, while Ireland has 1.8% of Euro area GDP and 1.4% of Euro area population<sup>73</sup>. Size matters primarily because this could be a major driver of the countries' influence on area-wide decision-making processes, blurring the role of other factors. The similarly small size of Greece and Ireland means that they can be treated as having similarly low formal influence on overall decision-making at the Euro area and EU

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<sup>72</sup> Note that we refer here exclusively to the sovereign debt crisis itself, rather than including the severity of the banking and real estate crisis.

<sup>73</sup> Eurostat database, 2009.

level or on domestic policymaking in partner countries<sup>74</sup>. This means that they both tend to be “policy takers” in the European (and global) context, including with regard to monetary policy.

Additionally, foreign ownership was prevalent at the onset of the crisis in the government bond markets of both countries. 77% of Greek government bonds and 83% of Irish government bonds were owned by foreigners in late 2009<sup>75</sup>. This eliminates possible distortions that could derive from behavioural differences of different investor groups, particularly since domestic investors are typically considered to be more stable than foreign investors. Moreover, they do not present major differences in terms of bond market liquidity, as both are relatively small bond markets in the Euro area context. Government securities outstanding were 272 billion euros in Greece<sup>76</sup> and 119 billion euros in Ireland by the end of 2011, versus 1.5 trillion for Italy and more than 1 trillion for both France and Germany (Eurostat, 2011). This means that we do not need to account for liquidity risk to possibly impact bond prices in different ways in the two countries.

Finally, as we will show in more detail in Section 4.4.2, the mix of macroeconomic, fiscal and financial conditions at the onset of the crisis does not appear to have been different enough to explain subsequent differences in the unfolding of the sovereign debt crisis.

In addition to the country selection, the selection of the period of time under investigation in the event studies also reflects our effort to maximize the robustness of the analytical methodology. First of all, as indicated in Chapter 1, the Euro area governance framework is not static, but evolves over time, and novelties were particularly frequent as the region faced the sovereign debt crisis<sup>77</sup>. Focussing the narrative on a limited and well defined

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<sup>74</sup> And therefore any differences in their external influence can be attributed to other factors.

<sup>75</sup> Data source is Bank of Greece and JPMorgan (2009) for Greece and Killian (2011) for Ireland.

<sup>76</sup> This is the figure for euro-denominated debt securities. Greece also has 4 billion debt securities denominated in other currencies.

<sup>77</sup> For example the introduction and ongoing redesign of the EFSF/ESM, the ECB’s changing role in terms of bank supervision and the central bank’s evolving attitude towards large scale bond purchases.



period of time limits the risk of misattributing causal relationships because of changing backdrop conditions.

Second, market liquidity in government bonds tends to fall sharply after external rescues. As a result, bond spread and CDS spread moves (and particularly short-term moves) can be influenced more by technical factors, such as temporary demand/supply mismatches, than by fundamental considerations. Focussing on the first part of the sovereign debt crisis thus has the added advantage of covering the period where bond yields carry the most market information, as opposed to technical distortions.

Finally, while we endeavour to provide as complete an introduction to the crisis as is possible at the time of writing, we also focus on a specific phase of the crisis in the empirical event study analysis in Chapters 5 and 6 in order to ensure the coverage of episodes that can be considered complete in themselves rather than providing a possibly partial view of unfolding events and unconcluded episodes.

As a result of these considerations, the day-to-day mapping exercises in the Greek and Irish event studies cover the period between the end of 2009 and the end of 2010. For both event studies, we focus on the first period of crisis, the crucial phase leading up to the first external rescue packages for each sovereign (in May 2010 for Greece and November 2010 for Ireland). In this well-defined period, we can analyse the emergence of domestic and international political and political economy factors as key contributors to shaping important features of the crisis.

As a final word of caution, in addition to the methodological points made in Section 4.3.1, there are obviously some more general limitations to the questions that the selected event studies can help to answer. In particular, looking at these events will not be enough to tell us whether investors would have treated non-Euro area countries differently in analogous situations, or more generally whether EMU entry changed the relationship between governments and financial markets in member countries. Similarly, the focus on the Greek and the Irish events does not help to explain why these countries experienced sovereign debt crises and others did not. Additionally, it will not be possible to tell whether the increased focus on domestic and international political economy factors is a transitory or a

durable phenomenon. However, these issues are all outside the scope of our research question.

### **4.3.3 Event study structure**

We design the structure of the event studies in Chapters 5 and 6, in an effort to provide “structured, focused comparison”, which argues for a systematic approach in the data collection and examination (George and Bennett, 2005, p. 68). Thus, each study follows the same structure and will be conducted in two steps.

In the first step, we identify the drivers of market perceptions of sovereign creditworthiness by mapping bond spreads with daily and intra-daily news. We use ten-year bond spread to Germany as the key reference measurement for market perceptions, although we refer to other asset prices when relevant, particularly CDS spreads and overall bond yields. We use Bloomberg News as the source of market-relevant news, integrated when necessary with information from official documents and statements. Looking at Bloomberg News allows us to refer to public information that markets would have received in real time. In fact, Bloomberg News is the main reference source for market traders and investors following market-relevant news in real time. Moreover, Bloomberg News headlines and stories are published with very short delays and tend to be ‘factual’, rather than ‘interpretative’.

Thus, focussing on Bloomberg News rather than on day-after newspaper information has the distinct advantage of allowing for a real-time identification of events. Moreover, it reduces possible distortions from possibly ‘interpretive’ newspaper articles. Overall, the risk of using second-hand interpretations of market moves inherent in the use of day-after newspaper analysis is greatly reduced. Many hundreds of news alerts and articles will be reviewed in order to identify relevant market reactions and avoid misinterpretation. On this basis, we re-create a comprehensive narrative of the crisis under consideration, documenting events and causal inter-linkages in detail, and provide summary charts to illustrate key market moves. Notably, the narrative built in this way is intended to reflect what markets saw at each point in time, rather than providing strict proof of each policymaker’s motivation, since the aim of this research is to study events from the market rather than the policymaker perspective.

In the second part, we analyse the identified developments in the light of the theoretical hypotheses formulated in Chapter 3. We analyse the causal links between news related to our explanatory variables and the moves in bond spreads identified in the mapping exercise, as well as the relevant features of the Greek and Irish systems in a comparative perspective. Mirroring the structure of the theoretical framework, we break down the analysis of the Greek and Irish debt crises into three separate sections. First, we focus on market behavioural traits and in particular on understanding the transition into “crisis mode”. Second, we focus on the role of the domestic political system in driving the sovereign risk premia. And third, we focus on the role of international political economy factors.

While devising the structure of the event studies, we considered the option of merging the narrative and analytical sections, in order to investigate the hypotheses from the beginning of each chapter. However, we considered the advice of King et al. (1994) that insightful descriptions of complex events are valuable and important in their own right, particularly in the fields of comparative politics and international relations. In the context of our research, the separate presentation of a detailed market-based narrative has the advantage of providing source both for increasing the replicability of the analysis<sup>78</sup> and for creating background material for future studies.

## **4.4 INTRODUCTION TO THE EVENT STUDIES**

### **4.4.1 Greece and Ireland: differing crisis experiences**

Greece and Ireland were the first two countries to be hit by the EMU sovereign debt crisis; Greece was the first victim, in the first half of 2010, and Ireland followed in the second half of the same year. While both countries suffered from the sovereign debt crisis, there were remarkable differences in their overall experience. While the sovereign debt crisis was

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<sup>78</sup> This is also indicated as a guideline for research design by, for example, King et al., (1994).

clearly a dramatic event in both countries, its severity and length was significantly greater in Greece than in Ireland, leading to outright debt write-down in 2012<sup>79</sup>.

As seen in Chapter 1, the dispersion of bond yields across EMU countries was extremely low in the first decade of EMU. Against this backdrop, Greek bond spreads to Germany had fallen to extremely low levels, although they remained the highest in the region, reflecting the country's chronically high debt to GDP ratio. Greece's ten-year bond spread hovered between 10 and 50 basis points for the entire period between EMU entry in 2001 and 2007. Ireland, for its part, enjoyed one of the lowest levels of bond yields in the region for a number of years, with yields actually falling below Germany's for a period in 2005-2006

However, things changed from early in 2008. Spreads started to increase modestly in the first half of 2008, and took a decisive step up after the Lehman crisis, on the back of surging global risk aversion. Greece and Ireland saw the largest spread widening in the region, with ten-year government bond spreads to Germany reaching 300 basis points in Greece and 270 basis points in Ireland by March 2009. Later in 2009, Irish spreads even surpassed Greek spreads: markets displayed ongoing concern about the consequences of Ireland's severe banking crisis, while the Greek financial sector was immune from direct contagion of the global financial crisis. While the initial widening of bond spreads looked remarkable at the time, it was still quite moderate when compared to the experience in the following years: the move was well contained overall for much of 2009 and both sovereigns continued to have full access to market finance.

The situation took a dramatic turn for the worse in the first half of 2010, when Greece faced a sharp increase in bond yields and lost access to market finance, even as Irish spreads remained overall well contained for much of the period. In late 2009, a significant underreporting of Greek public debt and deficits in recent years was revealed<sup>80</sup>. In early 2010 Greece moved back to the top of the list of market worries and was the first EMU country to face a fully-fledged market shutdown, even as Ireland had been the main

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<sup>79</sup> Additional details on the Greek sovereign debt restructuring terms are provided later on in this section.

<sup>80</sup> Section 5.3.1 looks more closely at how this revelation impacted the credibility of the Greek sovereign.

concern up to a few months earlier. Ireland suffered its own sovereign debt crisis a few months later, although it took about half the time for Ireland to obtain external help that it had taken for Greece.

For Ireland, the external bail-out led to a difficult period of domestic adjustment. Ireland did suffer significantly due to a combination of balance sheet deleveraging in the private sector and fiscal tightening, which led to recession and a sharp increase in unemployment. However, the implementation of the EU/IMF programme remained on track, and markets remained remarkably more sanguine than in the case of Greece. Bond yields continued to rise up to mid-2011, peaking at 14.1% in July 2011, but they started falling after that and never matched the extremes seen in Greece (Figure 4.4.1-1). Yields were down to the 7% range by early 2012<sup>81</sup>, indicating much calmer investor sentiment. Similarly, CDS spreads never matched Greece's default-like levels, with five-year CDS peaking at 1,191 basis points in July 2011, but falling to the 600 range by the beginning of 2012.

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<sup>81</sup> Starting on 12 October 2011, data on ten-year bond yields is replaced by data on nine-year maturity as no ten-year bond is available to use as a benchmark. The maturity change does not materially affect the message of the analysis, as confirmed also by comparing developments with the 11-year benchmark bond and with CDS spreads.

Meanwhile, for Greece, the first external bail-out was just the beginning of a dramatic flow of events, including:

- A second rescue package from the European partners and the IMF, agreed in October 2010 and ratified in February 2012;
- An outright debt restructuring in March 2012: private bondholders saw a 53.5% write-off of the face value of their Greek government bond holdings, reducing Greece's debt burden by 106.5 billion euro;
- A huge social, as well as economic and banking, crisis on the back of draconian fiscal tightening, slumping real GDP, surging unemployment, increasing poverty and overall collapsing social structure;
- A political crisis in May 2012, as elections following six months of technical government did not lead to a workable majority, instead providing support to anti-austerity left-wing parties and fuelling speculation about an EMU exit<sup>82</sup>.

Greek asset prices reflected this turmoil, with ten-year yields and CDS spreads continuing to surge throughout the period, up to levels consistent with outright default: in the second half of 2011, ten-year bond yields moved above 20%, while CDS started to be priced up-front<sup>83</sup>. Ten-year bond yields reached 35% in February 2012, while CDS prices continued to rise, increasingly pricing a CDS-triggering credit event (which the March 2012 restructuring indeed was).

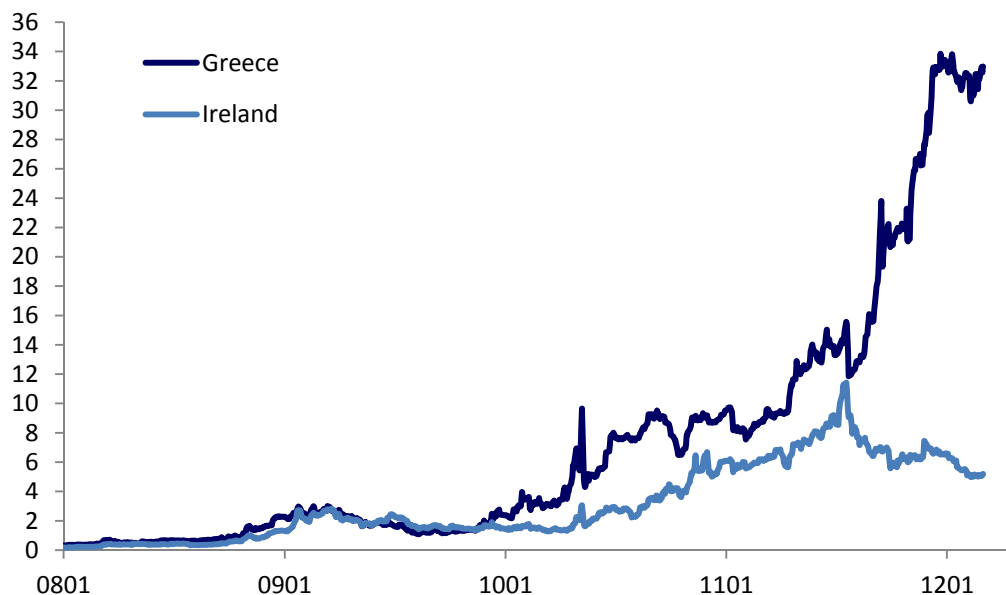
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<sup>82</sup> The election was repeated a few weeks later and a government was finally formed, under the leadership of Antonio Samaras.

<sup>83</sup> Traders change the pricing convention to "up-front" when CDS spreads reach distressed levels and are expected to remain at distressed levels for a while.

**Figure 4.4.1-1 Greece and Ireland government bond spreads to Germany**

10-year government bond spreads, % per annum, daily data. Source: Bloomberg



Note: for Ireland, the nine-year benchmark bond replaces the ten-year benchmark bond from 12/10/2011 due to the absence of a benchmark for ten-year maturity.

#### 4.4.2 Greece and Ireland: macro fundamentals at the onset of the crisis

By the time the sovereign debt crisis started, both Greece and Ireland had built up significant macro-imbalances, although with differences in sources and patterns.<sup>84</sup>

After joining the EMU, both countries enjoyed much lower real interest rates than before, as nominal interest rates converged. Low interest rates and financial innovation fuelled strong debt growth, which in turn fostered not only GDP growth but also inflation; over the years external competitiveness diminished, leading to wider current account deficits. The combination of external imbalances and higher domestic debt made Greece and Ireland vulnerable to a macro-shock (such as a sharp GDP downturn) or a retreat of bond investors

<sup>84</sup> As a result of this, both countries were included by financial market analysts in the 'PIGS' group. PIGS is an acronym created by Goldman Sachs to identify the four economies facing the highest macroeconomic imbalances in the Euro area (Portugal, Ireland, Greece and Spain).

(mostly foreign in both countries). Also, both countries were constrained as to the macroeconomic policies that they could put in place to support the unwinding of these imbalances and cushion the impact of the adjustment on the real economy, due to the loss of independent monetary and exchange rate policy following the adoption of the common currency.

Figure 4.4.2.2-1 summarizes some key macroeconomic variables for both Greece and Ireland at the beginning of the sovereign debt crisis and the next two sub-sections discuss them.

#### **4.4.2.1 Greece's macro-economy backdrop**

In the first years of EMU membership<sup>85</sup>, Greece experienced robust GDP growth, averaging 4.1% between 2000 and 2007. A sharp decline in interest rates, along with financial innovation, fuelled credit growth, supporting in particular consumption and housing activity. Strong wage growth in both public and private sectors also contributed, along with an overall expansionary fiscal policy, particularly in the run-up to the Athens Olympics in 2004.

In spite of solid growth performance, there was little adjustment in Greece's public finances, which continued to suffer from an entrenched system of privileges<sup>86</sup>, tax evasion and a large and inefficient public administration (as explained, for example, by Buiters and Rabhari, 2010). Indeed, public debt failed to fall materially below 100% of GDP, while the budget deficit was the largest in the EMU throughout the period and never genuinely fell within the 3% Maastricht limit.

Meanwhile, structural reform lagged. As a result, the mentioned strong wage inflation led to consumer price inflation steadily above the EMU average and to a significant loss of competitiveness. With a small industrial base, significant import needs – fuelled also by

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<sup>85</sup> Greece joined the EMU in 2001, two years after the monetary union started with the first 11 members.

<sup>86</sup> Greece has a large public sector, although it is quite confined and selective in its welfare benefits. Welfare spending as a share of GDP is one of the lowest among OECD countries.



strong domestic demand growth - and most export receipts coming from tourism, Greece's current account deficit was the largest in the region by 2006.

In 2008-2009, Greece was only indirectly impacted by the global financial crisis, avoiding a banking crisis and suffering a more muted economic recession than most other EMU countries (the real GDP contraction averaged 1.75% over the two years). However, the weaker backdrop still took a significant toll on Greek public finances, which had failed to be adjusted in the good times: the government overspent and revenues fell sharply (European Commission, 2010).

Overall, in the case of Greece, imbalances built up steadily over time, and came to a head when growth was hit; the public sector was a key source of imbalances and its poor condition a key economic driver of the crisis.

#### **4.4.2.2 Ireland's macro-economy backdrop**

Meanwhile, the Irish story is one of a boom-and bust-cycle, where imbalances originating in the private sector affected state finances and put these in jeopardy. Ireland staged a remarkable economic catch-up in the 1990s and early 2000s, thanks to strong foreign direct investment inflows and strong export growth, followed by a phase of surging domestic credit and a real estate boom: country-wide house prices more than doubled in the 2000-2006 period. Between 2002 and 2007, Ireland enjoyed the highest level of per capita GDP in the EMU (excepting Luxembourg). Moreover, the benefits of structural adjustment and strong economic performance were clearly visible in the public finances figures: by 2006, Ireland's public sector balance recorded a surplus of 2.9% of GDP and the public debt was the lowest in the EMU (excepting Luxembourg).

Ireland was referred to as the "Celtic Tiger" and considered a success story in terms of growth in general and of EMU convergence and integration more specifically. The seeds of a crash were being sown beneath the surface, particularly in the latter part of the period. Indeed, the increased dependence on strong credit growth and on the construction sector led to a surge in private sector debt, as well as to considerable extension and quality deterioration in bank balance sheets. Meanwhile, the economy started overheating, with inflation above the EMU average: this led to sharply increasing labour costs, which in turn

led to deterioration in external competitiveness (crucial for a strongly export-oriented economy) and a widening current account imbalance. In 2008-2009, with its highly indebted private sector and overextended banking sector strongly dependent on international inter-bank flows, Ireland was the hardest hit among the EMU countries by the international financial crisis. The country experienced a major banking crisis, as well as a reversal in the domestic construction sector, which in turn led to a sharp recession. Public sector finances suffered sharply, both because of the economic recession and because of the costs of bank rescue programmes: in three years, the public debt tripled and the deficit reached 14% of GDP, and this did not include the huge contingent liabilities assumed by the state while guaranteeing bank deposits and senior debt, as well as future bank recapitalization needs<sup>87</sup>.

Overall, at the onset of the sovereign debt crisis, Greece clearly had by far the worst public finances situation in the EMU, with the highest public debt level in the region as well as a large budget deficit. This fundamental macroeconomic deterioration risked creating concerns about medium-term debt sustainability at any time. Large external imbalances further reinforced creditor concerns, particularly as to Greece's capacity to remain in the EMU. Meanwhile, Ireland faced the highest private sector debt level in the EMU, a large moribund banking sector, a housing market slump, and a sharply deteriorating real economy. In addition to the deterioration deriving from the recessionary environment, the state faced large contingent liabilities and potentially large outlays to support the banking sector.

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<sup>87</sup> This is treated in more detail in Chapter 6, Section 6.3.1

**Figure 4.4.2.2-1 Greece and Ireland macro-data snapshot**

Source: Eurostat, % of GDP, unless otherwise indicated

	<u>Greece</u>		<u>Ireland</u>	
	2006	2009	2006	2009
<b>Public Budget Balance*</b>	-5.7	-15.6	2.9	-14
<b>Public Budget Debt*</b>	107.3	129.9	24.7	65.1
<b>Private Sector Debt (ex financials)</b>	98	122.7	205.3	336.1
<b>Financial Sector Liabilities**</b>	174.2	239.7	1061	1435
<b>Current Account Balance</b>	-11.4	-11.1	-3.5	-2.9
<b>Net International Investment Position</b>	-85.3	-86.1	-5.3	-103.1
<b>Real GDP growth (% ch y/y)</b>	5.5	3.3	5.3	-7.0
<b>Unemployment Rate (% labor force)</b>	8.9	9.5	4.5	11.9
<b>Consumer price inflation (% ch y/y)</b>	3.3	1.3	2.7	-1.7
<b>Real House Prices (%ch y/y)</b>	9.2	0.3	12	-15.1
<b>Per capita GDP (PPS, EU=100)</b>	92	94	146	133
<b>Unit Labor Costs (2000=100)</b>	116.4	138.3	126.2	138.3

\*Data as reported in May 2012.

\*\* Irish financial sector liabilities are significantly boosted by Ireland's International Financial Centre. Domestic bank liabilities are estimated at 295% of GDP (Morgan Stanley, 2011)

### 4.4.3 Introducing the S-score and the M-score

In order to get a sense of the evolution of Greek and Irish macro fundamentals vis-à-vis the rest of the Euro area, we create a synthetic score of country macroeconomic vulnerability. We denominate this indicator the S-score<sup>88</sup>.

We select the macro variables to be used to calculate the S-score on the basis of the following criteria:

1. They represent the two key sources of macro-imbalances fuelling the EMU sovereign debt crisis: public sector vulnerability and external vulnerability.

<sup>88</sup> This score is loosely inspired by Ed Altman's Z-score, a credit-scoring method created in 1968 to anticipate corporate bankruptcies (Altman, 1968), although the approach and variables utilized are adapted to sovereign entities and to the aims of our analysis.

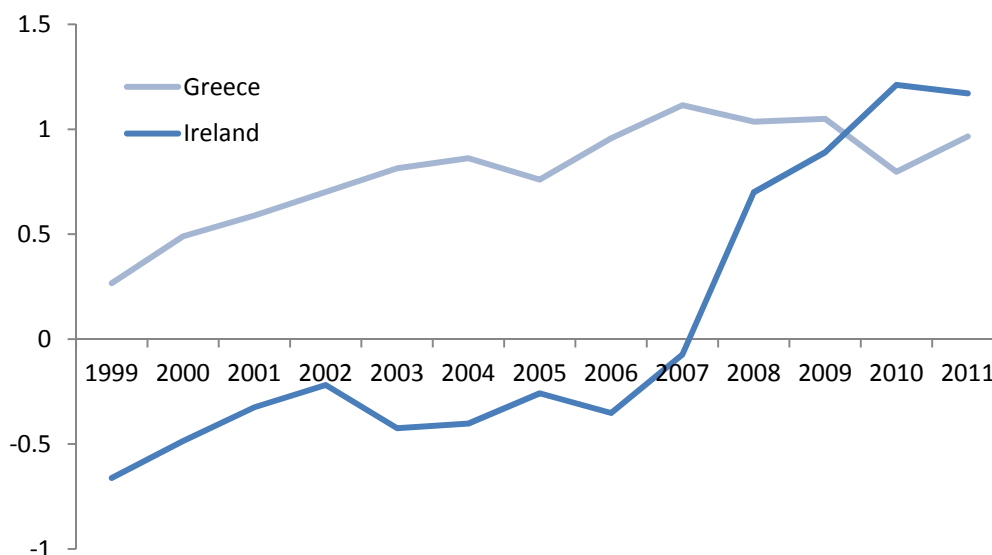
2. They are basic, widely available and understood public indicators.
3. They include both flow and stock variables.
4. Their number is kept to a minimum in order to make them as readily usable as possible.
5. The resulting S-score has good explanatory power for EMU government bond spread dispersion during the sovereign debt crisis.

By trial and error, we test a number of indicators and find that four best respond to these five criteria: public budget balance, public debt, current account balance, and net international investment position (all as a % of nominal GDP). The external vulnerability indicators (current account balance and net international investment position) are a synthesis of the country's overall position vis-à-vis external entities. As such they are a synthesis of both the public and the private sector positions, ensuring that private sector net financial flows and net debt positions are indirectly represented. This also means that the public sector situation receives an overall higher weight than the situation in the private sector, which makes sense given that we are analysing sovereign bonds.

For each country and for each data series we calculate the number of standard deviations from the EMU average, obtaining four sub-scores for the public balance, public debt, current account balance and net international position. Then, we take a simple average of the individual results and obtain a summary S-score for each individual country and its evolution over time. This indicator illustrates the distance of each country's macro position from the EMU average, adjusted for overall regional dispersion, thus it provides a sense of the position of each country vis-a-vis the EMU average, rather than an absolute assessment of its situation. Figure 4.4.3-1 shows the S-scores calculated for Greece and Ireland. The chart shows synthetically how Greece had worse fundamentals than the rest of the EMU for the whole decade, while Ireland faced a huge reversal of fortunes after the financial crisis in 2008 (Ireland would look even worse if the contingent liabilities from the banking crisis were to be taken in account), with both countries finding themselves in challenging macro-positions by 2009-2010. We will use this indicator in the event studies to compare the evolution of the fundamental data with moves in bond spreads.

**Figure 4.4.3-1 S-score for Greece and Ireland**

The S-score is a synthetic indicator based on: public budget balance, public debt, current account balance, net international investment position. Full description is in the main text.



According to Mosley (2003, p. 53), the set of variables that matter for bond market investors in developed democracies is actually restricted to two: overall public budget deficits and inflation rates. In order to further assess how these indicators would have predicted the occurrence and shape of the Greek and Irish sovereign debt crises, we develop also a summary indicator based on those two variables. In particular we use the budget deficit as % of nominal GDP and the year-on-year consumer price (CPI) inflation rate<sup>89</sup> for each country. We follow the same calculation methodology as that used for our S-score and call the resulting indicator M-score.

Figure 4.4.3-2 illustrates the M-scores obtained for Greece and Ireland. As in our S-score, on the M-score metric Greece fared worse than the rest of the Euro area ever since 1999, and the degree of relative under-performance actually worsened between EMU entry in 2001 and 2009. There was a modest improvement in 2010 and 2011, but the Greek M-score was the highest in the region throughout the period. Both the public budget deficit and the inflation rate were either the highest or the second-highest in the region for most

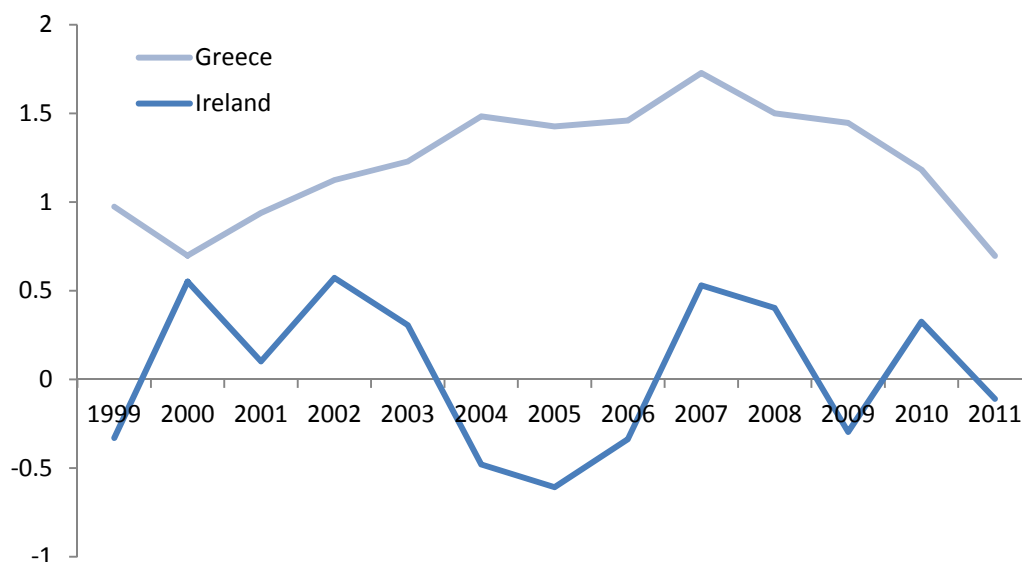
<sup>89</sup> To be precise, we use the Harmonised Index of Consumer Prices (HICP), which is designed to allow for direct cross-country comparisons in the Euro area.

of the period. In contrast, the Irish M-score remained close to the Euro area average for most of the decade, with a significant improvement in the period between 2004 and 2006, but no major deterioration in the sovereign debt crisis period (2010-2011). Indeed, while the budget balance went from the strongest to the weakest in the region during that period, that move was offset by a marked decline in inflation: consumer price inflation was negative in 2009 and 2010 after averaging 3.4% in the prior ten years.

These calculations suggest that developments in budget deficits and inflation rates failed to indicate both the timing and the severity of the swing in investor sentiment in 2009-2010 (in the case of Ireland, they failed to indicate a crisis tout court<sup>90</sup>). These results are not surprising in light of the theoretical approach presented in Chapter 3: indeed, they reinforce our argument that investor analysis of sovereign borrowers is not immutably restricted to a few macro-shortcuts as posited by Mosley (2003), but its depth and breadth can change over time, with a broader information set likely to be considered in response to shocks.

**Figure 4.4.3-2 M-score for Greece and Ireland**

The M-score is a synthetic indicator based on: public budget balance and consumer price inflation. Full description is in the main text.



<sup>90</sup> As we'll see in more detail in Chapter 6, the Irish sovereign debt crisis originated from a severe banking crisis, and in 2010 investors reacted to the credit risk transfer from banks to the government as a result of the government's bank bail-outs and guarantees.

#### **4.4.4 Towards a political economy analysis of the Greek and Irish crises**

Overall, in the period leading up to the crisis, it was not obvious from macroeconomic and financial information that Greece would face a more severe sovereign debt crisis than Ireland, although the Greece situation subsequently deteriorated significantly as the crisis unfolded. Indeed, Greek and Irish bond yields were at similar levels for much of 2008 and 2009; tellingly, in their quantitative analysis of Euro area bond spreads between January 2003 and March 2009, Sgherri and Zola (2009) find that “a sizeable part of the actual change in spreads since September 2008 remains unexplained, notably in the case of Greece” (p. 15).

Indeed, macroeconomic fundamentals at the onset of the crisis cannot by themselves fully explain the relative timing and overall severity of the crisis in each of the two countries under consideration. This suggests that other factors may have come into play to determine market attitudes vis-à-vis each sovereign.

The Greek and Irish sovereign crises thus represent a good test of the theoretical framework introduced in Chapter 3, which suggests a role for political economy factors and thus has considerable potential to contribute to explaining the residual differences. The two countries display considerable variation in terms of the independent variables identified by our theoretical framework. The key features differentiating the Greek and Irish political economy backdrops in the context of our theory are summarized in the comparative table in Figure 4.4.4.2-1 and discussed in the next two sub-sections.

##### **4.4.4.1 Domestic political economy factors**

First, the theoretical framework of Chapter 3 highlights the role of the domestic veto player constellation – including both formal and de-facto veto players – in influencing sovereign credibility in financial markets. There is no agreement among political scientists on how to count veto players exactly, so estimates from different experts may vary. That said, while these differences mean that individual country figures cannot be compared across different databases, countries can be compared within each database. In order to ensure a reliable

estimate of the relative number of formal veto players, we refer to the data from the World Bank Database of Political Institutions, which includes information for both Greece and Ireland in the period under consideration (2009 and 2010). Specifically, we use the CHECKS index<sup>91</sup>, measuring both constitutional and veto players and accounting for the ideological orientation of the parties in the government coalition (Keefer, 2010). Moreover, in the context of the event studies, we'll highlight additional nuances not captured by mechanical counts.

According to both metrics of veto players, Greece and Ireland are rather differently positioned along the Euro area (and developed democracies) spectrum. On the one hand, the number of checks and balances in the Greek political system is at the low end of the spectrum for developed democracies. The DPI assigns Greece a CHECKS score of 3 in both 2009 and 2010, among the lowest in Western Europe. On the other hand, in Ireland the number of official checks and balances built into the system is among the highest across both the Euro area and developed democracies. The DPI assigns Ireland a CHECKS score of 5 in both 2009 and 2010.

Moreover, Greece and Ireland are diametrically opposed in terms of the polarization of the political system along the left-right continuum and specifically in terms of social contestation. On the one hand, Greece has a history of a strongly polarized ideological system on the right-left continuum. Meanwhile, the Irish social and political landscape feature exceptionally low cleavages along the right-left continuum and low levels of social contestation on economic issues. As a metric of the overall degree of social contestation, it is remarkable that Greece accounted for almost half of all the general strikes held in Western Europe in the period 1980-2008, with a total of 38, while no general strike took place in Ireland over the same period (Kelly and Hamann, 2010).

#### **4.4.4.2 International political economy factors**

The second set of factors that the theory identifies as meaningful in driving sovereign risk perceptions of financial markets pertains to the international sphere. In particular, the

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<sup>91</sup> We used the same index in Chapter 3 for a broader global comparison.



theory highlights the role of 'proximity' between the sovereign borrower and its creditors. Here too, Greece and Ireland are at the opposite end of the spectrum in terms of trade and financial integration with the rest of the EMU and the global economy. In order to assess these elements, we identified a number of synthetic indicators that provide a sense of bi-directional links between sovereign borrower and creditor countries: Figure 4.4.4.2-1 contains a selection of these, while additional detail will be examined in the event studies in Chapters 5 and 6.

Ireland is highly integrated with the rest of the global economy and Europe in particular. It is in fact one of the most open economies in the world. It has very high levels of both exports and direct investment in relation to GDP: 101% and 123% of GDP respectively in 2010<sup>92</sup>. Ireland is a preferred location for US multinationals' hubs in Europe and over the last twenty years has attracted large investments in high technology export-oriented sectors and finance.

Greece is at the opposite end of the spectrum in terms of trade and financial integration with the rest of the EMU and of the global economy, with a very small export sector and relatively low international direct investment in the country. Total exports were 23.5% of GDP before the crisis<sup>93</sup>, with tourism accounting for a significant part and merchandise exports amounting to a mere 7.7% of GDP. Inward foreign direct investment flows were also modest over the years, with inward foreign direct investment reaching only 16% of GDP in 2007.

Moreover, EMU and international banks were much more exposed to Ireland than to Greece by the time of the sovereign debt crisis, particularly due to the risk of market contagion in the event of bank failures. Also, the overall exposure of the global banking system to Ireland was almost double that in the case of Greece, in spite of Irish GDP being about two thirds of Greek.

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<sup>92</sup>Ireland ranks fifth in the world for both exports and direct investments as share of GDP.

<sup>93</sup> 2007 data.

**Figure 4.4.4.2-1 Comparing political economy variables in Greece and Ireland**

	<u>Greece</u>	<u>Ireland</u>
<b>CHECKS score (World Bank DPI)</b>	3	5
<b>N. of general strikes (1980-2008)</b>	38	0
<b>Exports as % of GDP</b>	23.5%	101.0%
<b>Inward FDI as % of GDP</b>	16%	121.3%
<b>Foreign bank claims (EUR billions)</b>	272	417
<b><i>of which: German</i></b>	39	114.1

Data Sources: World Bank, Eurostat, Kelly and Hamann (2010), Eurostat, UNCTAD, BIS, OECD, JPMorgan (2009). Except for N. of general strikes, reference year for data ranges between 2007 and 2010, depending on availability.

## 4.5 CONCLUSION

Chapter 4 presented the empirical framework for the event studies in Chapters 5 and 6. First, we identified government bond spreads to Germany as a main operational metric for our dependent variable, sovereign risk perceptions in financial markets. Second, we presented the event study structure and motivations for the selection of the Greek and Irish episodes. Third, with the S-score and M-score analysis we showed a mis-match between macro-variables and government bond spreads for a number of years, setting the stage for the testing of our approach to financial market behaviour based on the AMH. Finally, we highlighted differences in Greek and Irish crisis experiences and how differences in the macro-economic situation at the onset of the crisis did not appear large enough to justify the subsequent differences in the severity of the crisis. Instead, we highlighted important differences in the key domestic and international political economy factors identified by our theory as likely to influence sovereign risk perceptions at times of crisis.

As a final observation, it is important to reiterate our awareness of the high complexity of the sovereign debt crisis in Greece and Ireland. Clearly, a huge set of factors interacted to determine the overall crisis outcomes, including profound economic and financial motivations. So, while the event studies in the next two chapters will aim to single out the

role played by the identified political economy factors, these should be seen as contributory elements to the overall shape of the crisis rather than as exclusive drivers.

## Chapter 5

### *The Greek Sovereign Debt Crisis*

#### 5.1 INTRODUCTION

In Chapters 5 and 6 we deal with the two event studies of Greece and Ireland. At the end of the second event study, we will draw comparative conclusions.

For Greece, the focus of this chapter, we concentrate our event study on the period between the beginning of October 2009 and 10<sup>th</sup> May 2010. Over that period, the markets' attitude towards Greek sovereign debt changed dramatically. In the space of six months, Greece went from being considered a de facto risk-free credit to being singled out as the riskiest in the world<sup>94</sup>. As financing costs surged and access to market finance was closed, in early May 2010 the country received an aid package from the rest of the EMU and from the IMF, after weeks of debate about how the crisis should be dealt with. This episode also led to the creation of the European Financial Stability Fund, which provided the Euro area with an emergency facility ready to be used in case of future need.

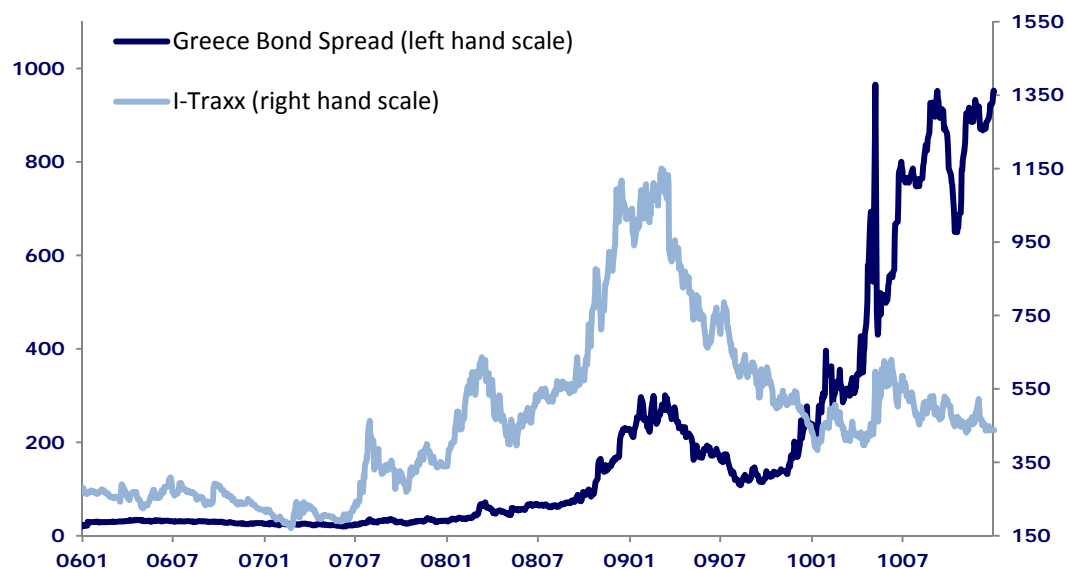
A moderate spread widening in late 2008/early 2009 could in good part be explained by a "common factor" with the rest of the financial markets - a huge increase in global risk aversion and a generalized run towards "safe havens". However, the move that started in the latter part of 2009 was a specifically Greek event: Greek spreads widened even as spreads in other peripheral EMU countries stabilized and global risk sentiment continued to improve. This is shown clearly in Figure 5.1-1, which aligns Greece's ten-year bond spread to Germany with the five-year I-Traxx Cross-over Index, a credit index broadly used as an indicator of market stress during the global financial crisis.

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<sup>94</sup> This refers to the probability of default as estimated from CDS prices.

**Figure 5.1-1 Greece Bond Spread and I-Traxx Cross-over index**

Bond spreads to German and 5-year Itraxx Cross-over index, basis points , daily data



Source: Bloomberg

Starting in late 2009, the Greek crisis took on a life of its own, if anything driving rather than being driven by moves in other parts of the financial markets. This is the crucial period when the eight-year-long honeymoon of the financial markets with Greece came to an end: Greece irreparably lost the confidence of the bond markets, and moved from the “good credit” to the “bad credit” category.

We dedicate particular attention to this period as it carries important implications for the Euro area as whole, as well as for Greece. Indeed, it is crucial to understand not only the Greek debt crisis itself, but the Euro area sovereign crisis as a whole: it is this episode that kick-started a process that eventually led to contagion to other Euro area peripheral countries (Ireland and Portugal), and increased financing costs and spillover risks for other major Euro area countries considered financially weaker (mainly Spain and Italy). It also set a road map for the evolution and management of the Irish and Portuguese crises that emerged later.

Fundamentally, this is a crucial period for the history and evolution of the EMU: it was at the origin of important structural changes in EMU institutions, as well as of an evolution in

the nature of the collaboration among EMU partners. The EMU evolved from a monetary union where cross-country support was ruled out by the founding treaty to one where solidarity is sealed through a common emergency mechanism put in place to face potential liquidity problems in one or more countries.

In our event study, we aim to identify the causal links between the domestic and international economic factors identified by our theory as potential drivers of sovereign risk perceptions during periods of crisis and the behaviour of bond spreads during the Greek sovereign debt crisis.

First, our theory proposes a dynamic interpretation of investor behaviour, and particularly of mental and valuation models, which combines both rational and behavioural market traits. Within this framework, assessment criteria are expected to adapt to changing circumstances, particularly in response to shocks such as a crisis. Accordingly, in the event study we will look for evidence that markets failed to act as fully efficient disciplining devices on government policies, overlooking changes in underlying fundamentals for a period ahead of the crisis. Moreover, we will look for evidence that during the Greek sovereign debt crisis sovereign bond spreads reacted to factors that go beyond the macroeconomic shortcuts identified by Mosley (2003) in normal times.

In particular, we expect to find a role for a set of domestic and international political economy factors. First, the theory anticipates a role for the veto player constellation of the domestic political system, arguing also that an exclusive focus on formal veto players may not be sufficient, and that the degree of socio-political contestation will influence sovereign risk perceptions in the specified circumstances. Specifically, we expect to find that the domestic veto player constellation will have negatively affected Greek sovereign credibility. Formal political power is very concentrated in Greece, and ideological polarization and social contestation are high compared with other EMU countries and with developed democracies in general. News and events signalling evidence or consequences of these features would thus be expected to contribute to pushing up bond spreads.

Finally, the theory broadens the analysis to international political economy factors, anticipating a role for external de-facto veto players in influencing risk premia and more specifically arguing that greater economic, financial or ideological proximity between

debtor and creditor countries should lower sovereign risk premia in the debtor country, other things being equal. We will look at the international political economy dynamic surrounding the default/consolidation/bail-out decision in order to identify any relevant external veto player in the context of the Greek crisis. Moreover, we would expect to find that Greece's comparatively low level of trade and financial integration with the rest of the EMU and the global economy also negatively affected Greek sovereign risk premia.

The search for empirical evidence will be based on a combination of three elements. The first of these is direct evidence of the causal mechanism of government bond spreads reacting to news concerning the mentioned political economy factors. The second is indirect evidence on the causal chain, where government bond spreads are found to respond to facts or features that are typical of a particular type of veto player constellation or international political economy position. Finally, there are considerations derived more broadly from an analysis of the political economy backdrop of the Greek sovereign, which will be further integrated, verified and enriched by a comparison with the Irish event study in Chapter 6.

Clearly, a multitude of economic, financial and political events and factors can influence bond spreads during a sovereign debt crisis, and at times it may be hard to disentangle and quantify the effect of each. Indeed, multiple events or factors can have a simultaneous impact and conversely a certain event or fact may take some time to fully filter through to market prices. Our detailed mapping exercise and analysis are designed to minimize the risk of misinterpreting casual links, although they cannot totally remove it. We will therefore take a relatively cautious approach to the analysis, for example referring to an event's "contribution" to a given spread move when it cannot be identified clearly as the sole driver.

As part of the empirical investigation for our research project, this event study is generally geared to contributing to the debates highlighted in prior chapters, in line with the broader aim of this thesis. More specifically, the results of our analysis will provide a new facet to the existing explanations of the moves in Euro area bond spreads during the region's sovereign debt crisis, which concentrated on fiscal, financial and economic magnitudes (for

example Sgherri and Zoli, 2009; Schuknecht et al., 2010)<sup>95</sup>, or highlighted the fragilities created by monetary union membership (De Grauwe and Ji, 2012; De Grauwe, 2011).

Besides the contribution to the broader debates, this event study adds a perspective to studies specifically dedicated to explaining the origins of the Greek sovereign debt crisis<sup>96</sup>. Economists have focussed on the role of the dismal fiscal numbers and high current account deficits (Gibson, Hall and Tavlas, 2012), or on a combination of those macroeconomic variables with shifting market expectations (Arghyrou and Tsoukalas, 2011). Here, while not denying the important role played by economic and financial factors, we will focus on identifying the contribution of political economy factors. In contrast to Featherstone's broad, one-country analysis, our approach is much more specifically focussed on identifying the factors that can actually be shown to have affected bond spreads. Moreover, we do this on the basis of an analytical framework that can be applied to other sovereigns and therefore allow for direct comparison with other crisis experiences<sup>97</sup>. Our analysis can be seen as complementary to that of Featherstone. Indeed, on the domestic front, we find interestingly that some of the weaknesses of the domestic political system identified by Featherstone (2011) can be linked to the political economy features that we identified as relevant for the pricing of government bonds in our theory.<sup>98</sup> On the external front, we emphasize the role of the bilateral struggle between Greece and Germany, rather than focussing on the failures of the European governance framework<sup>99</sup>.

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<sup>95</sup> The relevant literature was analysed in Chapter 2 and broader literature contributions were highlighted in Chapter 1 and will be further explained in Chapter 7.

<sup>96</sup> The academic literature on the Greek sovereign debt crisis, as well as on the Irish crisis, is at the early stages, which is not surprising given the unfolding nature of the events. Contributions are likely to multiply in the coming years. Meanwhile, journalistic and practitioners' accounts have recently been published, including that of Lynn (2011) and a chapter in Lewis's book (2011).

<sup>97</sup> We will do this thanks to the second case study in Chapter 6.

<sup>98</sup> This finding is particularly interesting as an independent confirmation, as our analysis on Greece was carried out prior to the publication of Featherstone's work (2011).

<sup>99</sup> This different focus does not mean that we deny the role played by the inadequacies of the EU and EMU governance framework. Indeed, Featherstone (2011) himself highlights how "the dilemmas faced by Chancellor Angela Merkel's government amply attest to the domestic constraints posed on EU-level bargaining" (Featherstone, 2011, p. 201).



The event study follows the structure outlined in Chapter 4. Section 5.2 is dedicated to mapping Greek bond spreads with daily and intra-daily news in order to identify specific political economy drivers of sovereign risk premia. Section 5.3 is dedicated to the analysis of the events and casual mechanisms in the light of the theoretical framework developed in Chapter 3. Section 5.4 completes the analysis with a look at the role of politics before 2008.

Section 5.5 concludes by summarizing key findings. Additionally, charts showing the evolution of the financial market variables mentioned throughout the narration are provided at the end of the chapter (Market Data – Section 5.6).

## **5.2 MAPPING THE GREEK SOVEREIGN DEBT CRISIS**

### **5.2.1 New government, new statistics**

When snap elections on October 4<sup>th</sup>, 2009 took PASOK leader George Papandreou to the helm of the country there was little reaction from markets. In spite of the party's Left-of-Centre leanings and its campaign promises of moderation, rather than intensification, of the fiscal austerity, markets seemed more concerned about clarity and a stable mandate (the party obtained 160 of 300 Parliament seats) than the specific colour of the government. Papandreou's promise of a "small revolution" to fix the country's woes and familiar name may have reassured markets. In any case, in line with the experience up to that point, bond markets did not seem to be overly concerned about domestic political developments in EMU countries.

As soon as the new government came to power and started looking at the books, worrying news about the state and trend of public finances started to emerge. Officials revealed that the public finances were in a much worse state than reported by the outgoing administration (Bloomberg News, October 6<sup>th</sup>, 8<sup>th</sup>, 12<sup>th</sup>, 2009) the Finance Ministry now estimated the 2009 budget deficit to be tracking 12.5% of GDP (Bloomberg News, October 20<sup>th</sup>, 2009), against the 6% targeted in the Stability and Growth Programme Update of March 2009 and the 3% Maastricht limit. It also estimated the 2008 deficit to have been 7.7% of GDP, rather than the reported 5% (Bloomberg News, October 15<sup>th</sup>, 2009). When

publishing the revised 2008 figures, Eurostat expressed “a reservation on the data reported by Greece due to significant uncertainties over the figures notified by the Greek statistical authorities” (Bloomberg News, October 22<sup>nd</sup>, 2009, and Eurostat, 2009).

The spiralling sense of confusion about the actual state of Greek public finances was reinforced by Papandreou himself. Adding to the escalating concern, in his first official speech to parliament as Prime Minister on October 16<sup>th</sup>, Papandreou confirmed the deterioration and reinforced worries: “The situation in our economy is explosive... We found ourselves facing a fiscal derailment without precedent” (Bloomberg News, October 16<sup>th</sup>, 2009).

The reaction of European partners came after the October 19<sup>th</sup> Eurogroup, when the EU Monetary and Economic Affairs Commissioner, Joaquín Almunia, expressed “serious concerns” about Greece’s public finances data. Later, ECOFIN put Greece under “enhanced budget surveillance”: the focus remained firmly on the drafting of a new, tougher medium-term consolidation plan by early 2010 (Bloomberg News, December 2<sup>nd</sup>, 2009). Rating agencies also took notice: on October 22<sup>nd</sup>, Fitch downgraded Greek Government debt from A to A-, with a “negative” outlook (Bloomberg News, October 22<sup>nd</sup>, 2009). Moody’s also placed Greece on review for possible downgrade (Bloomberg News, October 29<sup>th</sup>, 2009).

Papandreou’s government also appeared half-hearted when outlining an alternative adjustment plan for public finances. The draft budget presented on November 5<sup>th</sup> put the expected figure for the 2009 budget deficit at 12.7%, and targeted a modest reduction to 9.4% in 2010 (Bloomberg News, November 5<sup>th</sup>, 2009a). The reduction would be derived from the fading of one-offs and the application of tightening measures of a timid nature (higher tobacco and alcohol duties) or doubtful efficacy (tighter tax collection). Electoral promises of higher unemployment benefits and social spending were to be maintained (Greek Finance Ministry, 2009).

Downward revisions to the earlier reported GDP profile were also reported in mid-November: whilst the economy previously appeared to have remained on a modest but positive growth path, the new numbers showed an economy mired in recession since the

latter part of 2008 (Bloomberg News, November 13<sup>th</sup>, 2009). Moreover, the Government was expecting a further 1.5% contraction in 2010 (Greek Finance Ministry, 2009).

Meanwhile, in early November the ECB started to hint that some of the emergency liquidity measures introduced during the financial crisis might be phased out during 2010 (Bloomberg News, November 5<sup>th</sup>, 2009b). On November 16<sup>th</sup>, the Greek Central Bank had issued a warning to banks to exercise caution concerning the extent of ECB bank borrowing in the upcoming one-year repo<sup>100</sup> (Bloomberg News, November 16<sup>th</sup>, 2009). This rang alarm bells in the markets about the vulnerability of Greek banks, hitting the stock markets primarily, but also to some extent government bonds. Then, on December 3<sup>rd</sup>, the ECB confirmed that the December one-year repo would be the last (Bloomberg News, December 3<sup>rd</sup>, 2009).

Greece's ten-year bond spread to Germany rose by 50 basis points to 179 between mid-October and November 25<sup>th</sup>. This was still relatively modest compared with what would happen later, but it took place against the backdrop of slightly sliding spreads in the rest of the EMU periphery, and leaving Greece to replace Ireland in pole position in terms of intra-EMU risk premia from mid-November. Also, by early November, CDS prices indicated a higher risk of default in Greece than in Turkey. On November 25<sup>th</sup>-26<sup>th</sup>, the Dubai World credit crisis hit global markets (Bloomberg News, November 25<sup>th</sup>, 26<sup>th</sup>, 2009) and Greek bonds were the hardest hit in the ensuing spill-over. On November 26<sup>th</sup>, the Greece German bond spread widened by 22 basis points, a move of 3.4 standard deviations away from the average seen since the start of the financial crisis. While the increase was largely reabsorbed as the Dubai World crisis petered out, the move was to be an important sign that markets were becoming uncomfortable with holding Greek debt.

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<sup>100</sup> ECB lending through open market operations typically takes the form of reverse transactions ("repos"), where "the central bank buys assets under a repurchase agreement or grants a loan against assets pledged as collateral" (ECB, 2011a, p. 99). Additional detail on ECB monetary policy implementation is provided in section 6.3.3.

### 5.2.2 Credit rating downgrades and liquidity concerns

On December 7<sup>th</sup>, Standard and Poor's put the A- Greek credit rating under watch, with negative implications (Bloomberg News, December 7<sup>th</sup>, 2009). The following day, Fitch downgraded Greece's debt from A- to BBB+ with negative outlook (Bloomberg News, December 8<sup>th</sup>, 2009). For the first time since entering the EMU, Greece was losing its A rating at one of the three major rating agencies. Fitch referred to "concerns over the medium-term outlook for public finances, given the weak credibility of fiscal institutions and the policy framework in Greece, exacerbated by uncertainty over the prospects for a balanced and sustained economic recovery" (Fitch Ratings 2009, p. 1). Here, the markets' reaction was immediate and powerful: in the following three days, ten-year bond spreads rose by 70 basis points.

Papandreou's promises to "do whatever is required", recognition of a "credibility gap" (Bloomberg News, December 9<sup>th</sup>, 2009) and announcements of some additional tightening measures (Bloomberg News, December 15<sup>th</sup>, 2009) went unheard by markets. When the European Council meeting took place on December 10-11th, the focus was on obtaining a "clear commitment" from the Greek authorities to put their fiscal house in order (Bloomberg News, December 10<sup>th</sup>, 2009). Swedish Prime Minister Fredrik Reinfeld, holder of the EU presidency, stated after the meeting that: "This is now on the top of the agenda of the new Greek government." And Papandreou added: "We're not asking for any gifts or favours... an EU summit in Brussels today. We will live up to our obligations. There is no possibility of a default for Greece" (Bloomberg News, December 11<sup>th</sup>, 2009).

Standard and Poor's definitely downgraded Greece's credit rating to BBB+ on December 16<sup>th</sup>, and spreads widened by another 45 basis points in the following three days (Bloomberg News, December 16<sup>th</sup>, 2009).

Greek bond market volatility stepped up significantly during the entire period between December 7<sup>th</sup> and the Christmas holidays, with daily moves of between 1.5 and 4.1 standard deviations from the average observed since the start of the financial crisis. On December 21<sup>st</sup>, ten-year spreads reached 277 basis point and yields reached 5.96%: since

EMU entry Greece had seen these kinds of level only briefly, during the global financial turmoil in early 2009.

On January 14<sup>th</sup>, the Greek government presented its Stability Programme Update, containing the promised three-year consolidation plan (Bloomberg News, January 14<sup>th</sup>, 2010a).

**Figure 5.2.2-1 Greece fiscal plan- January 2010**

Source: Greece SGP, 2010 Update*. % of GDP, unless otherwise stated					
	2009	2010	2011	2012	2013
<b>Budget Balance</b>	-12.7	-8.7	-5.6	-2.8	-2.0
<b>Primary Budget Balance</b>	-7.7	-3.5	-0.2	2.6	3.2
<b>Cyclically Adjusted Primary Balance</b>	-7.6	-2.5	0.7	3.2	3.1
<b>Debt</b>	113.4	120.4	120.6	117.7	113.4
<b>Real GDP (%ch y/y)</b>	-1.2	-0.3	1.5	1.9	2.5
<b>Nominal GDP (%ch y/y)</b>	0.4	1.7	3.5	3.8	4.4

\*Greek Finance Ministry (2010a)

The plan foresaw a very ambitious consolidation programme, with a return to a primary surplus within three years, but markets did not deem this credible: bonds were sold off at the news. The ECB statement on the same day that “no state can expect special treatment” and that its collateral rules would not be changed “for the sake of a particular country” (Bloomberg News, January 14<sup>th</sup>, 2010b) gave further impetus to the Greek spreads widening. Papandreou pledged to do “whatever it takes” (Bloomberg News, January 14<sup>th</sup>, 2010c), but strikes loomed as labour unions prepared to fight the austerity measures (Bloomberg News, January 12<sup>th</sup>, 2010).

Overall, ten-year bond spreads climbed by 76 basis points between January 12<sup>th</sup> and January 20<sup>th</sup>: Greek yields surpassed their peak of March 2009 to reach their highest levels since Greece's EMU entry in 2001, and durably passed the 6% bar.

There was some temporary relief when the government managed to place the first bond issue of the year on January 25<sup>th</sup>, but the denial of a report that a 25bn euro bond sale to China was imminent renewed the upward impetus of yields and spreads on January 27<sup>th</sup> (Bloomberg News, January 27<sup>th</sup>, 2010). Spreads climbed by 92 basis points in two days, with yields reaching 7.1% on January 28<sup>th</sup>, as reports that financial help was being prepared by Germany and France were denied and the Greek Finance Minister revealed that there was no 'Plan B' for tackling the debt (Bloomberg News, January 27<sup>th</sup>, 28<sup>th</sup>, 2010).

By the end of January, markets were clearly unwilling to once more give the Greek sovereign the benefit of the doubt, and the government was clearly unable to regain market credibility in spite of repeated promises of commitment.

Bond spread movements suggest that, by the end of January, in the markets' mind the Greek issue had shifted from one of more or less routine fiscal adjustment to one of possible liquidity constraints, as important refinancing deadlines were approaching. Greece faced two large bond redemptions worth 8 and 9 billion euros respectively in April and May (JPMorgan, 2010), and a total estimated financing need<sup>101</sup> of about 30 billion euros by the end of May (JPMorgan, 2009). Indeed, the surge in two-year bond yields and spreads was proving much sharper than the move in their ten-year equivalents: Greece's two-year bond spreads to Germany had moved from an immaterial 10 basis points up to late October 2009 to 240 basis points on January 18<sup>th</sup>, 2010, 410 on February 2<sup>nd</sup>, and 560 on February 10<sup>th</sup>. This suggests that perceptions of short-term risk and particularly fears of a liquidity crisis in the short term were mounting.

### **5.2.3 First steps towards external support**

The only thing that could short-circuit the crisis at this point was a credible show of external support. Indeed, markets appeared to be very sensitive to a change in the attitude of

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<sup>101</sup> This includes estimated new budget deficit and bills issuance as well as bond issuance.

European policymakers right from the start. On January 29<sup>th</sup>, press reports that European governments might offer aid (*Financial Times* and *Il Sole 24 ore*, as reported in Bloomberg News, January 29<sup>th</sup>, 2010a and Bloomberg News January 29<sup>th</sup>, 2010b) resulted in an immediate fall in Greek bond spreads, with a decline of 50 basis points over two days. Opening the door to the possibility of European support interrupted the climb in Greek yields and anchored them in the 6 - 6.5% range for the next two months. However, while range-bound, spreads failed to fall back to pre-crisis levels and remained volatile as the full domestic and international political economy drama of the default and bail-out choices played out in front of the markets.

Over the first few days of February, European policy-makers' remarks became more conciliatory towards Greece's consolidation efforts and the European Commission issued a recommendation endorsing the Greek plan (Bloomberg News, February 3<sup>rd</sup>, 2010). The market move was increasingly seen as a broader "speculator attack on the euro" (Greek Finance Minister Papaconstantinou, as quoted in Bloomberg News, February 2<sup>nd</sup>, 2010), requiring coordinated regional action.

The Greek government committed itself to additional austerity measures (Bloomberg News, February 3<sup>rd</sup>, 2010) as well as to a raising of the Greek pension age (Bloomberg News, February 9<sup>th</sup>, 2010), in order to secure the EU's endorsement of its plans. Greek unions immediately started to plan a general strike (Bloomberg News, February 3<sup>rd</sup>, 4<sup>th</sup>, 2010). Meanwhile, German rhetoric towards Greece remained severe: "Greece must pay a price" (Finance Minister Schäuble, as quoted in Bloomberg News, February 6<sup>th</sup>, 2010). As a result, Greek bond markets remained jittery, and market concerns started to spread towards other fragile EMU members, particularly Portugal.

The fear that the crisis would spread beyond Greece provided an incentive for European policymakers to start discussing the possibility of a financial backstop for Greece (Bloomberg News, February 9<sup>th</sup>, 10<sup>th</sup>, 2010). A long-awaited promise of support did indeed emerge from the scheduled European leaders' meetings in Brussels (Bloomberg News, February 11<sup>th</sup>, 2010a): "Euro area Member states will take determined and coordinated action, if needed, to safeguard financial stability in the euro area as a whole" (European Council, 2010a).

In exchange Greece would need “to do whatever is necessary, including adopting additional measures” (EU President Van Rumpuy, as quoted in Bloomberg News, February 11<sup>th</sup>, 2010b). In particular, it would need to adhere to an aggressive deficit reduction programme (a total tightening of 4% of GDP in 2010 and a return to budget balance by 2012) plus sweeping structural reforms, including a very unpopular pension reform. Moreover, policy implementation would be the object of ongoing monitoring by the European Commission, with the help of ECB and IMF experts. The first international assessment of Greece’s progress would be made by mid-March.

Rather than an immediate rescue programme, EMU partners had opted for a promise of support which lacked detail and was conditional on compliance with specific requests. The counterpart to the promise of support was an important loss of policy sovereignty for Greece, as huge parts of the country’s economic management and structure (fiscal policy, pensions, labour market, tax collection, public administration, services and product markets) would now have to adapt to EU requirements and be subject to ongoing monitoring.

Bond markets’ initial reaction to the rumours and announcement of EMU backing was positive: ten-year bond spreads declined by 89 basis points over three days, reflecting a large fall in Greek yields and a slight increase in German bond yields to reflect the increase in contingent liability facing the German government. However, the improvement was short-lived.

Markets’ doubts about the solidity of the agreement were fuelled in the next few days by the hostile reaction of some of Merkel’s political allies, a good part of the German press, and Greek unions. The agreement stirred the anger of both German and Greek public opinion.

According to an Emnid poll, 71% of Germans were against financial help for Greece, at a time when support for the German ruling coalition had fallen to its lowest since 2001, according to a Forsa poll (Bloomberg News, February 12<sup>th</sup>, 2010). Merkel’s political allies, particularly from the Free Democratic Party (FDP), were critical: “Our citizens can’t be expected to pay for the consciously flawed fiscal and budgetary policies of other Euro-zone countries” (Carl-Ludwig Thirele, FDP financial policy spokesman in the German parliament,



as quoted in Bloomberg News, February 12<sup>th</sup>, 2010), and threatened to block parliamentary approval of any aid.

For their part, Greek unions reacted to the prospects of additional austerity with calls for a three-day strike. Large protests on February 23<sup>rd</sup>-24<sup>th</sup> ended in clashes with the police (Bloomberg News, February 23<sup>rd</sup>, 25<sup>th</sup>, 2010). Rating agencies were unconvinced: Fitch cut the ratings of the four main Greek banks in the expectation that a tougher adjustment programme would further hurt an already ailing real economy and thus prospects for credit quality; Standard and Poor's and Moody's warned that further credit downgrades might be forthcoming (Bloomberg News, February 24<sup>th</sup>, 2010).

As a result, by February 25<sup>th</sup> the previous week's improvement in Greek spreads had been all but erased and yields were back to 6.66%, a level similar to that seen ahead of the EU's support promises.

#### **5.2.4 Greece versus Germany**

As requested by the EU, in early March the Greek government took another turn at the screw of fiscal policy. On March 3<sup>rd</sup>, additional budget cuts were announced, including pension freezes, further cuts in public sector wages and indirect tax hikes (Bloomberg News, March 3<sup>rd</sup>, 2010). These cuts, worth 4.8 billion euros or about 2% of GDP, would offset the shortfalls deriving from an overly optimistic growth assumption in the original plan, and took the overall planned fiscal contraction to the largest seen across EMU countries in thirty years. While the plans were designed to satisfy the EMU partners, they once again stirred the anger of the Greek unions, with various strikes and protests against austerity hitting the news once again just ahead of parliamentary approval (Bloomberg News, March 5<sup>th</sup>, 2010). Meanwhile, surveys showed 60% of the Greek population opposed to the austerity measures and 81% judging negatively the EU's handling of the crisis (Bloomberg News, March 9<sup>th</sup>, 2010).

Meanwhile, Papandreou embarked on a tour of European and American leaders with the goal of rallying support for Greece. Speculation was mounting on possible forthcoming help (Bloomberg News, March 2<sup>nd</sup>, 2010). However, even as the debate was stepped up across Europe (and Germany) about what form the help would take – with, for example, proposals

for a European Monetary Fund being floated (Gros and Mayer, 2010) - German Chancellor Merkel's rhetoric maintained a reticent tone: "We have a Treaty under which there is no possibility of paying to bail out states in difficulty" (Bloomberg News, March 1<sup>st</sup>, 2010).

Greece managed to sell 5 billion euros in ten-year bonds on March 4<sup>th</sup> (Bloomberg News, March 4<sup>th</sup>, 2010), but the risk premium failed to improve substantially. Relations between Germany and Greece remained tense, as some German politicians proposed selling Greek islands to plug the deficit (Bloomberg News, March 5<sup>th</sup>, 2010), and four German academics said that they would attack any Greek aid decision in the German Constitutional Court on the basis of the Maastricht Treaty prohibition (Bloomberg News, March 8<sup>th</sup>, 2010).

However, as soon as news started coming in that ECOFIN had started to define some 'technicalities' of possible European loans (Bloomberg News, March 16<sup>th</sup>, 2010a), financial markets appeared to be reassured. S&P even withdrew its "credit-watch negative" on the Greek BBB+ rating (Bloomberg News, March 16<sup>th</sup>, 2010b) and bonds rallied.

Greek leaders saw this act as an "important" indicator of "political support" from EU partners that would help Greece obtain access to markets at "reasonable rates (Finance Minister Papaconstantinou, as quoted in Bloomberg News, March 16<sup>th</sup>, 2010c). However, the EU still appeared confused and far from decisive: "What will happen if necessary, and we're still convinced it won't be necessary, is that we'll reach an agreement in the Euro zone to offer bilateral aid in a coordinated form" (Eurogroup Head Junker, as quoted in Bloomberg News, March 16<sup>th</sup>, 2010c). Merkel still preferred to adopt a sceptical tone when talking for the domestic public: "The problem has to be solved from the Greek side and everything that is considered has to be oriented in that direction, not rushed assistance" (Chancellor Merkel, as quoted in Bloomberg News, March 17<sup>th</sup>, 2010a).

Faced with an ongoing battle at the European level and with Germany dragging its feet, and with major refinancing deadlines just a few weeks away, Papandreou started to openly urge action (Bloomberg News, March 18<sup>th</sup>, 2010) and threatened to resort to IMF assistance in case of EU shortfall: "We are making a great attempt to achieve our goals to get clear support from the European Union so that we don't have to go to the IMF" (Greek government spokesman Petalotis, as quoted in Bloomberg News, March 17<sup>th</sup>, 2010b). The ECB, European Institutions and the French were in principle opposed to the direct

intervention of the IMF (Bloomberg News, March 19<sup>th</sup>, 2010), seen as an unnecessary external interference in EU internal affairs. However, recourse to the IMF started to seem a reasonable way out for Germany: IMF involvement would help to enforce stricter conditionality and make the measures more acceptable to German public opinion (Bloomberg News, March 18<sup>th</sup>, 2010).

A compromise agreement on a contingency support mechanism was reached at the March European Council meeting, and the framework for a joint EU-IMF loan package was presented (Bloomberg News, March 25<sup>th</sup>, 2010a). The support mechanism would be activated if Greece lost access to market funding and asked for help, and would require a unanimous decision by member states. The help would take the form of bilateral loans to be provided by a majority of member states on a voluntary basis, with a contribution from the IMF (European Council, 2010b). As demanded by Germany (Bloomberg News, April 5<sup>th</sup>, 2010), the loans would be offered at market rate and be subject to compliance with strict conditions. Moreover, a task force was set up to design a reinforced fiscal sustainability framework for the EMU (Bloomberg News, March 25<sup>th</sup>, 2010b). The ECB also announced that the threshold for the collateral eligibility of government securities would remain BBB- “beyond the end of 2010” (Bloomberg News, March 25<sup>th</sup>, 2010c).

The German Government made a point of stressing the “last resort” nature of the facility, and its “abstract” nature. Merkel presented the decision to the German parliament: “A good European is not necessarily one who rushes to assist” (Merkel, as quoted in Bloomberg News, March 26<sup>th</sup>, 2010d). Crucially, it was unclear whether Germany would actually ever be able to disburse the package due to the possible need for parliamentary approval and the constitutional hurdle, although officials suggested that the mechanism was “safe” from the legal point of view (Bloomberg News, March 26<sup>th</sup>, 2010).

As a result, investors were unconvinced. There was a temporary and modest 23 basis points decline in ten-year bond spreads in the two days following the announcement, but a 5 billion euros seven-year bond issue on March 29<sup>th</sup> fell in value on the first day of trading and demand for a subsequent 12-year bond was scarce (Bloomberg News, March 30<sup>th</sup>, 2010). This highlighted Greece’s difficulties in raising finance in the international markets and investors’ doubt about the medium term sustainability equation. By March 31st, Greek

ten-year yields were back to 6.5%, with spreads back to levels not seen since early February. The refinancing deadlines of April and May were looming closer and closer.

### 5.2.5 The crisis escalates

The first part of April was marked by increased concerns about Greek banks. The sovereign crisis appeared to be spilling over into the banking sector, as asset quality deteriorated and funding became more difficult<sup>102</sup>. In turn, the sovereign could not act as a credible backstop to mounting risks in the financial sector. A treacherous feedback loop was developing between the sovereign and the local banks, and sovereign bond yields started to climb again.

A slew of bad news contributed to fuelling concerns in the banking sector:

- On March 31<sup>st</sup>, Moody's downgraded the debt and ratings of the five Greek banks by between one and two notches, taking these into the A2-Baa1 range, "as a result of a reassessment of the credit enhancement associated with systemic support for this institution" (Moody's Investor Services as reported in Bloomberg News, March 31<sup>st</sup>, 2010).
- On April 7<sup>th</sup>, the four main Greek banks (National Bank of Greece, Alpha Bank, EFG Eurobank Ergasias, Piraeus Bank) asked and were permitted to access a second instalment (about 17 billion euros) of a support facility that the government had set up in 2008 at the height of the global financial crisis (Bloomberg News, April 7<sup>th</sup>, 2010).
- On April 8<sup>th</sup>, reports were published showing that deposit withdrawal worth about 2% of assets had started from Greek banks in January and February, creating fears of a run on Greek banks (Bloomberg News, April 8<sup>th</sup>, 2010).

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<sup>102</sup> The Greek banks' dependency on Eurosystem funding had continued to increase, reaching about 12% of bank assets in early 2010 (Bank of Greece, 2010).

- Then, on April 9<sup>th</sup>, Fitch crystallised market concerns by downgrades of both sovereign and bank debt. The rating on sovereign debt was revised from BBB+ to BBB- (with “negative outlook”), just a notch above “non-investment grade” or “junk” status” (Bloomberg News, April 9<sup>th</sup>, 2010).

As a result, by April 9<sup>th</sup>, Greek ten-year bond spreads made new all-time highs, moving above 400 basis points; yields rose by 81 basis points in three days and breached the 7% threshold. The government bond market weakness was accompanied by sharp declines in Greek equity markets, driven by plunging bank stocks.

After almost three weeks of falling markets, European policymakers were back on call: “Nobody should doubt that the Eurozone would rescue Greece” (French President Sarkozy, as quoted in Bloomberg News, April 9<sup>th</sup>, 2010b).

Following a weekend of meetings, the EU and the IMF announced that a fully-fledged rescue mechanism was now ready to be activated on Greece’s demand (Bloomberg News, April 11<sup>th</sup>, 2010).

The rescue mechanism aimed to safeguard the “financial stability in the Euro area as a whole” (European Council, 2010c). The aid would amount to a total of about 45 billion euros: 30 billion were committed by EMU member states according to their ECB capital key<sup>103</sup> and an additional 10-15 billion were to be provided by the IMF. The loans would have a length of three years and be provided at a moderately subsidized interest rate (Euribor +300 basis points, corresponding to about 5% at the time of the announcement), and be subject to strict conditionality (European Council, 2010c).

Both the duration and the loan would be less favourable than corresponding IMF deals and the disbursement of the financial support mechanism would require parliamentary approval in a number of EMU countries.

In Germany, once again, the reaction of the press and of some MPs in Merkel’s coalition was critical (Bloomberg News, April 12<sup>th</sup>, 2010). Four professors were preparing to

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<sup>103</sup> The ECB capital key represents the proportion of ECB capital subscribed by each member state; it is determined on the basis of each country’s nominal GDP and population.

challenge the aid in the Constitutional Court (Bloomberg News, April 14<sup>th</sup> 2010a). A debate started on how to fund it, and a decision was made that parliamentary approval would be required, adding a risk to the potential activation of the aid (Bloomberg News, April 14<sup>th</sup>, 2010b). Moreover, polls ahead of the election in North Rhine Westphalia due on May 9<sup>th</sup> showed for the first time that the ruling Conservative/Liberal coalition was on track to lose its majority in that state and therefore in the *Bundesrat*, the Upper House of parliament (Bloomberg News, April 16<sup>th</sup>, 2010).

The Greek government, for its part, requested technical discussions with the European Commission, the ECB and the IMF on a possible adjustment programme, but held off on an outright request for help due to widespread domestic opposition (Bloomberg News, April 15<sup>th</sup>, 2010).

Ten-year spreads had declined by 77 basis points on the back of the EU/IMF announcement, but the move was short-lived. Greek bonds plummeted and spreads rose by an average of 22 basis points per day in the seven working days between April 13<sup>th</sup> and April 21<sup>st</sup>. By April 21<sup>st</sup>, ten-year yields had reached 8.1%.

### **5.2.6 The end-game**

April 22<sup>nd</sup> was the day of the final market capitulation, on the back of an overwhelmingly negative news-flow:

- First, estimates of Greek public sector deficit and debt were revised up once again. The 2009 deficit was revised up for the fourth time to 13.6% of GDP, with indications from Eurostat that further revisions to 14.1% might be in the pipeline. 2009 debt was now estimated at 115% of GDP (Bloomberg News, April 22<sup>nd</sup>, 2010a)
- Second, Moody's downgraded Greek debt from A2 to A3 and placed the country on negative credit watch (Bloomberg News, April 22<sup>nd</sup>, 2010b).
- Third, news of domestic social unrest in Greece intensified: a public sector strike and protests in the streets shut down schools and hospitals (Bloomberg News, April 21<sup>st</sup>, 2010).

- Fourth, even as the aid bill had been swiftly passed in the French parliament, the German position remained unclear. Some CDU MPs of the Christian Democratic Union (CDU) were adamant that Greece's default "must be prevented", but others started to push the idea of Greece's exit from the EMU as an alternative solution (Bloomberg News, April 22<sup>nd</sup>, 2010c).

The crescendo of negative news generated unprecedentedly large market moves. Greece's ten-year bond yields jumped to 9.2%, a 610 basis point spread to German bonds. Two-year yields surged even more dramatically by 275 basis points to 11%. Five-year CDS prices soared to 638 basis points, indicating that markets were now starting to price in the possibility of default or restructuring. Meanwhile, the euro/dollar exchange rate slid to 1.32, the lowest level in 11 months, possibly a crucial turning point and suggesting that markets were starting to fear broader consequences for the region as a whole. From a liquidity problem, the Greek crisis was morphing in the minds of markets into an outright solvency crisis and a process was starting for the Greek crisis to snowball from a Greek to a Euro area and potentially global crisis.

On April 23<sup>rd</sup>, Greece capitulated and made a formal request for aid, with Prime Minister Papandreou addressing the nation on television (Bloomberg News, April 23<sup>rd</sup>, 2010a). On the same day, ECB President Trichet and IMF Managing Director Strauss-Kahn briefed German parliamentary leaders on the features of and reasons for the package, and delivered a joint press conference with German Finance Minister Schäuble in Berlin (Bloomberg News, April 23<sup>rd</sup>, 2010b). From the aid request to the activation of aid there were still a number of steps that needed to be followed, including a unanimous vote by the European Council, approval by various national parliaments, as well as negotiations with and board approval by the IMF. The process was expected to take two to three weeks (Bloomberg News, April 23<sup>rd</sup>, 2010b). Markets were once more left wondering about possible risks to the actual disbursement of the money.

Once again, the dynamics of domestic politics in Germany and Greece were anything but supportive. On the one hand, in regional election rallies, Chancellor Merkel continued to state that "I've said for weeks that Greece must do its homework first ...Germany will help when the corresponding conditions are met", fuelling concerns about delay in the help

(Bloomberg News, April 26<sup>th</sup>, 2010). Meanwhile, surveys showed that a large majority of Greeks opposed their government's external aid request (Bloomberg News, April 27<sup>th</sup>, 2010) and that only 23% of Greeks approved of Papandreou's handling of the crisis (Bloomberg News, April 25<sup>th</sup>, 2010). Further strikes and protests were organized for May 1<sup>st</sup> (Bloomberg News, May 1<sup>st</sup>, 2010).

Moreover, on April 27<sup>th</sup>, S&P downgraded Greece three notches from BBB+ to BB+ (Bloomberg News, April 27<sup>th</sup>, 2010b). Greece had now fallen into the "non-investment grade" or "junk" category. It was consequently expelled from the Barclays € government bond index and risked a similar fate from other indices if the trend continued.

Five-year CDS prices surged to 825 basis points, a value estimated by the CMA<sup>104</sup> to imply a 48.1% probability of default over the contract's length, higher than the corresponding probabilities for the worst-performing emerging markets at the time, Venezuela (44.4%) and Argentina (43.2%) (Bloomberg News, April 27<sup>th</sup>, 2010c). Markets were clearly by then pricing in a fully-fledged solvency crisis.

Meanwhile, the stress in Greek markets had repercussions across Europe and across the world. Spreads in vulnerable Euro area economies widened considerably, with a 100 basis points increases in Portuguese<sup>105</sup> and Italian ten-year yields over three days, as well as sizeable increases in those of Spain and Ireland. Markets were now pricing in the increasing risk of a "domino effect" from Greece to other EMU countries. On April 27<sup>th</sup>, the euro/dollar exchange rate fell to 1.3175, indicating increasing investor uneasiness with the Euro area as a whole, and the VIX stock market volatility index had the largest jump since October 2008, indicating broader concerns.

The focus of policymakers in the following few days was on "selling" the aid to the German parliament and public opinion, stressing the need to support the common currency project: "Greece is a problem for Europe and hence for Germany...This is about the stability of our

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<sup>104</sup> The CMA is the leading provider of independent data on over-the counter financial markets across the globe.

<sup>105</sup> Portugal's debt was also downgraded two notches to A- on the same day (Bloomberg News, April 27<sup>th</sup>, 2010d)



currency” (German Finance Minister Schäuble, as quoted in Bloomberg News, April 28<sup>th</sup>, 2010). A stronger sense of urgency also came through in Chancellor Merkel’s rhetoric: “It’s completely clear that the negotiations between the Greek government, the European Commission and the IMF need to be sped up now...The stability of the euro zone is at stake and we will not duck our responsibility. But the condition is that Greece accepts an ambitious program so as to restore markets’ confidence in Greece.” (German Chancellor Merkel, as quoted in Bloomberg News, April 28<sup>th</sup>, 2010b). Meanwhile, Greek ten-year yields reached 10% on April 28<sup>th</sup>, while two-year yields surged to 15.9%.

As market pressure mounted, on Sunday May 2<sup>nd</sup> the Eurogroup agreement on the release of a 110 billion euro EU/IMF financial support package was finally announced (Bloomberg News, May 2<sup>nd</sup>, 2010):

Eurogroup Ministers concur with the Commission and the ECB that market access for Greece is not sufficient and that providing a loan is warranted to safeguard financial stability in the euro area as a whole. Following a request by the Greek authorities, euro area Ministers unanimously agreed today to activate stability support to Greece via bilateral loans centrally pooled by the European Commission under the conditions set out in their statement of 11 April. Parliamentary approval, needed in some Member States prior to the release of the first tranche, is expected to follow swiftly. (European Council, 2010d)

The size of the package was larger than initially committed, with Euro area member states covering 80 billion euros, and would be provided in the context of a three-year joint programme with the IMF (providing an additional 30 billion euros), under strict conditionality (European Council, May 2<sup>nd</sup>, 2010). The support from EMU partners would come in the form of bilateral loans, with three years’ duration and a cost of three-month Euribor plus 3 percentage points<sup>106</sup> (IMF, 2010a). The amount to be disbursed was estimated to relieve Greece’s need to tap into financial markets well into 2012 (JPMorgan, 2010c). Also, the ECB suspended the minimum rating requirement for Greek debt used as

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<sup>106</sup> Plus a 0.5% one-off service charge

collateral in its operations, the first time it had acted in explicit support of one country (Bloomberg News, May 3<sup>rd</sup>, 2010).

The counterpart of the help was a tougher schedule of fiscal consolidation (worth a total of 10% of GDP over four years) and reform on Greece's part. Accordingly, Greece published a memorandum including a new set of tightening measures, forecasts for debt and deficit profiles and structural reform (Bloomberg News, May 3<sup>rd</sup>, 2010).

The plan entailed a budgetary adjustment package worth 11% of GDP through 2013, including sharp expenditure cuts as well as revenue increases. Sweeping structural reforms were also planned: a crucial pension reform, health care reform, tax and tax administration reform, debt management and statistical reform (Greece Finance Ministry, 2010b).

**Figure 5.2.6-1 Greece fiscal plan- May 2010**

Source: Greece Finance Ministry and IMF\* % of GDP unless otherwise indicated

	2009	2010	2011	2012	2013	2014
<b>Budget Balance</b>	-13.6	-8.1	-7.6	-6.5	-4.9	-2.6
<b>Primary Budget Balance</b>	-8.6	-2.4	-0.9	1.0	3.1	5.9
<b>Debt</b>	115	133	145	149	149.1	144
<b>Real GDP (%ch y/y)</b>	-2	-4	-2.6	1.1	2.1	2.1
<b>GDP Deflator (%ch y/y)</b>	1.4	1.2	-0.5	1.0	0.7	1.0

\*Greek Finance Ministry (2010b) and IMF (2010)

Greece's ten-year bond spreads fell by 50 basis points in the immediate aftermath of the aid announcement on May 3<sup>rd</sup>. However, the improvement was only temporary as markets nervously waited to see how the next steps needed for the package to be released would be dealt with, and worried about the medium-term sustainability of the measures, particularly in the light of what still looked like overly optimistic growth projections. The immediate hurdle resided in the required Greek and German parliamentary approval.

The adverse reaction of the Greek population was quick and more vigorous than ever before: strikes were planned even as the IMF insisted on the need for broad political support (Bloomberg News, May 3<sup>rd</sup>, 2010). The tone of protests escalated over the following two days, with three deaths reported on May 5<sup>th</sup> (Bloomberg News, May 5<sup>th</sup>, 2010a). In spite of the popular protests, the Greek parliament went ahead with parliamentary approval of the new plan, which received 172 votes in favour and 121 votes against (Bloomberg News, May 6<sup>th</sup> 2010).

Meanwhile, the package gradually moved through the German domestic approval process, under the nervous scrutiny of the markets and against the backdrop of a domestic commentary ranging from supportive to outright hostile, for example as the four academics prepared to submit their Constitutional Court claim (Bloomberg News, May 5<sup>th</sup>, 2010b). The cabinet approved Germany's 22.4 billion euros contribution to the aid package on May 4<sup>th</sup> (Bloomberg News, May 5<sup>th</sup>, 2010c); Parliament (both the *Bundestag* and the *Bundesrat*) voted in favour on May 7<sup>th</sup> (Bloomberg News, May 7<sup>th</sup>, 2010).

However, by the time the German parliament approved the measures, the financial market stress had already reached new highs, with panic selling of Greek bonds. Ten-year bond yields increased by 400 basis points over four days, reaching 12.5% on May 7<sup>th</sup>. Two-year yields surged by 800 basis points over the same period, reaching a startling 18.3%. Five-year CDS prices reached 965 basis points.

The free-fall in Greek bonds was accompanied by sharp sovereign spread widening in other EMU countries, as well as tumbling European and global equity markets. Assets price moves revealed mounting concerns about Greece's longer term solvency, contagion to other Euro area members and spillovers to the rest of global finance.

The euro/dollar exchange rate was plummeting as well, reaching 1.262 on May 6<sup>th</sup>, and indicating broader area-wide concerns: the survival of the EMU itself was being put into question in some quarters (JPMorgan, 2010c). Funding pressures were increasing in the banking system, particularly for EMU peripherals banks (Bloomberg News, May 7<sup>th</sup>, 2010b), conjuring up alarming memories of the recent financial crisis. The Greek issue appeared to be snowballing into a major European and global systemic problem.

Finally, after a frantic weekend of negotiations<sup>107</sup>, Euro area policymakers responded to rocketing market pressure with a ground-breaking announcement in the night between May 9<sup>th</sup> and May 10<sup>th</sup>, 2010 (Bloomberg News, May 10<sup>th</sup>, 2010a): “The Council and the Member States have decided today on a comprehensive package of measures to preserve financial stability in Europe, including a European Financial Stabilization mechanism with a total volume of up to 500 billion euros” (EU Finance Ministers, 2010).

The financial support scheme would have two components:

- A European Financial Stability Mechanism, with an allocation of 60 billion euros, managed by the European Commission, and available to all 27 EU member states.
- A Special Purpose Vehicle (later called a “European Financial Stability Facility”); a lending facility guaranteed on a pro rata basis by participating Member States up to a volume of 440 billion euros. The SPV would be set up and be available to EMU member states and expire after three years<sup>108</sup>.

Including additional IMF contributions of up to 250 billion euros, the decisions provided the region with a financial backstop facility of potentially up to 750 billion euros at face value. The amount put on the table would be sufficient to cover the financing needs of the peripheral sovereigns for an estimated two and a half years<sup>109</sup>.

Moreover, EU finance leaders committed to a reform of the fiscal sustainability framework and the design of a permanent crisis resolution mechanism. In order to reinforce the message, Portugal and Spain also agreed to step up their fiscal consolidation efforts for 2010 and 2011 (EU Finance Ministers, 2010).

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<sup>107</sup> A full account of events over that crucial weekend is provided in *Der Spiegel* (2010).

<sup>108</sup> Further details of these facilities became available later as the decision was implemented and the EFSF was created.

<sup>109</sup> The total “loan-able” amount would later turn out to be lower than the face-value amount due to constraints of the structure of the SPV and the “credit enhancements” required obtaining the AAA rating. Moreover, the contribution of the IMF was limited to a share (up to half) of the amount that EMU governments would contribute themselves (EFSF, 2010).

Moreover, the ECB, also in a huge departure from its original position, announced a programme of selected government bond purchases in secondary markets, and purchases of peripheral bonds started immediately (Bloomberg News, May 10<sup>th</sup>, 2010b and May 10<sup>th</sup>, 2010c). Additional liquidity-enhancing measures were also re-introduced to relieve bank funding markets<sup>110</sup>.

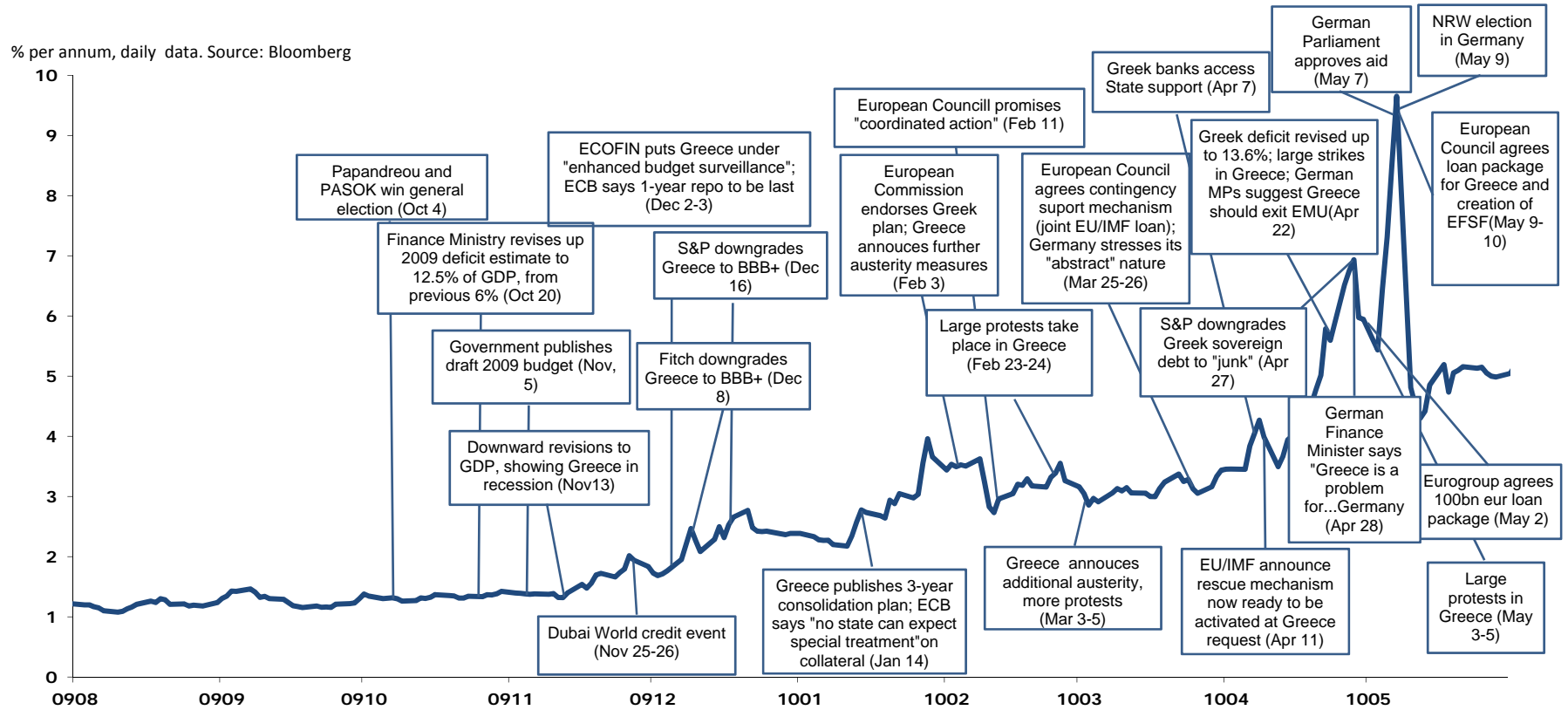
Notably, May 9<sup>th</sup> was also the day of the North Rhine-Westphalia legislative election in Germany: Merkel and her coalition lost their majority in that state and thereby in the *Bundesrat* (Bloomberg News, May 9<sup>th</sup>, 2010).

Huge relief pervaded markets on the back of the announcement: the ten-year bond yields spread fell by 484 basis points on May 10<sup>th</sup> and markets rallied across the globe. The decisive move by European policymakers had relieved immediate worries regarding Greece and especially systemic concerns regarding possible spillovers of the crisis. However, Greek and other peripheral European spreads did not fall back beyond the levels reached from mid-April. Indeed the announcement, and later on the creation, of the European Financial Stability Fund was not to prove the end of the sovereign debt crisis for either Greece or the Euro area, but it certainly represented a major turn in the policymakers/financial markets dialectic as well as a historic moment for the evolution of the nature and institutional structure of the monetary union and the EU itself.

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<sup>110</sup> Reintroduction of two full allotment tenders in the regular three-month long-term refinancing operation (LTRO), a six-month LTRO, and dollar liquidity swap line with the Fed.

Figure 5.2.6-2 Greece 10-year Government Bond Spread to Germany and key events



## 5.3 POLITICAL ECONOMY ANALYSIS OF THE GREEK SOVEREIGN DEBT CRISIS

### 5.3.1 Evolving investment analysis and the Greek sovereign debt crisis

In the space of a few months, Greek bonds went from being priced as almost risk-free to carrying a substantial default premium. Up to September 2009, Greek bonds were considered a bit riskier than German bonds, but still little different from those of other advanced economies, and for a number of months the risk premium was only the second-highest in the Euro area, with Ireland occupying the top spot. By the end of April 2010, Greece was considered the sovereign with the highest probability of default in the whole world.

The key period for understanding investors' disenchantment with Greece is the end of 2009. It is then that risk premia started a climb which would irreparably complicate Greece's sustainability equation<sup>111</sup>.

It is hard to argue that Greece's macro and fiscal fundamentals could have deteriorated as fast as markets turned. Indeed, as seen in Chapter 4 and summarized in the S-score<sup>112</sup>, the domestic and external macro imbalances that would eventually prove fundamental to feeding the crisis had been building for a few years. In Figure 5.3.1-1, we align the evolution of the S-score since 1999 – based on macro statistics as available in mid-2010 - with

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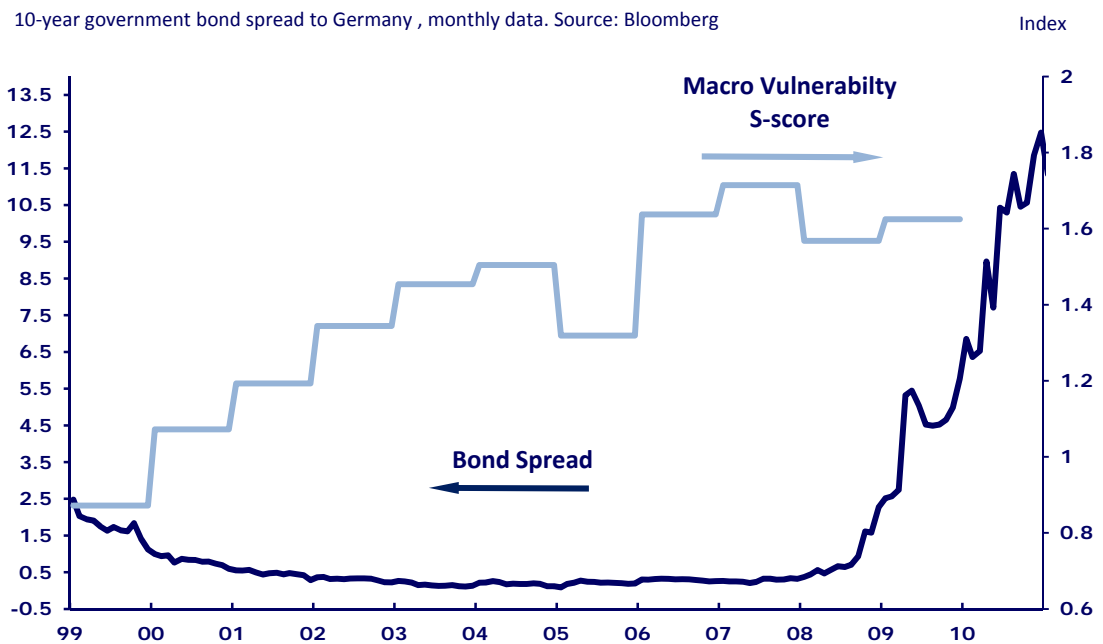
<sup>111</sup> Economists look at public debt sustainability as a function of the size of debt relative to GDP, the interest rate of that debt, and the pace of GDP growth. An increase in interest rates automatically makes debt sustainability more difficult at given levels of debt and GDP growth. Moreover, fiscal tightening driven by market pressures to consolidate public finances tends to have depressing effects on GDP growth. Observing the deterioration in the sustainability equation, markets can react with further bond selling and interest rate increases. So an initial increase in interest rates can trigger a chain-reaction leading to actual insolvency, even if the debt could have proved sustainable at lower interest rates.

<sup>112</sup> We created the S-score as a summary indicator of public sector and external macro-vulnerability on the basis of four basic macro indicators: public budget balance, public debt, current account balance and net international investment position (all as a % of nominal GDP). The construction of the index is explained in detail in Chapter 4.

developments in Greece's ten-year bond spreads to Germany. Greek risk premia remained very low even as macro imbalances were building over much of the period before the crisis. Then they suddenly started climbing in late 2009.

The fact that markets appeared to overlook progressive deterioration in fiscal and macroeconomic fundamentals for a number of years, rather than immediately imposing tighter lending conditions in response to governments' excessively lax behaviour, is provides evidence of the fact that the capacity of markets to act as disciplining devices on government policies is limited by financial markets' inherently varying degrees of efficiency.

**Figure 5.3.1-1 Greek bond spreads and macro fundamentals**



Thus, after years of excessive complacency, and underestimation of Greek sovereign risk, bond markets' attitude towards Greek government bonds changed significantly in the space of just a few weeks. What caused the turn of bond investors into much more severe "vigilantes"? The narrative of Sections 5.2.1 and 5.2.2 allows us to identify two types of catalyst, which we refer to as proximate catalyst and an ultimate catalyst.



The proximate catalyst for the market turn, which can be clearly identified by mapping news and bond price moves, was Greece's loss in December 2009 of the A credit rating on the scale of two of the three main rating agencies. Greece lost Fitch's A- credit rating on December 8<sup>th</sup>, while Standard and Poor's put the A- credit rating under negative watch on December 7<sup>th</sup>, and eventually downgraded the sovereign to BBB on December 16<sup>th</sup>. The reaction of bond spreads was sizeable in both instances (70 basis points in early December and 45 basis points in mid-December) and generally the Greek bond sell-off appeared to gain momentum during that period. The resonance of these relatively modest rating revisions reflected the importance that ECB funding had acquired in the financial system, rather than being a testimony to the reliability of the analysis of credit agencies.

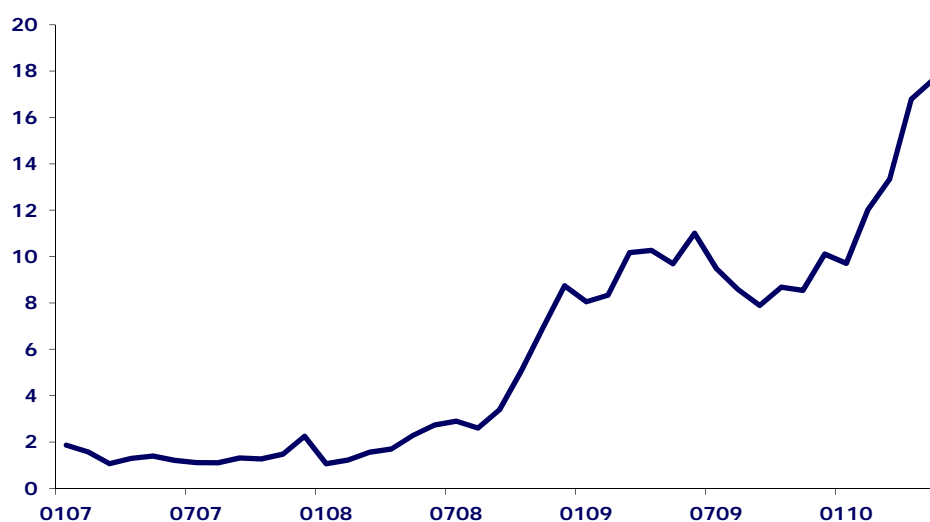
Indeed, by late 2009, Greek banks had developed a high level of dependency on Eurosystem<sup>113</sup> financing, obtained mostly against government bond collateral. The evolution of Greek banks borrowing at the ECB is illustrated in Figure 5.3.1-2. The minimum rating requirement for EMU government bonds (all treated equally) had been relaxed from the original A- to BBB- during the global financial crisis, but was to revert to A- by January 2011. So the rating downgrades of December 2009 generated concerns that Greek bonds might not be eligible as collateral at the ECB one year later. Indeed, after the Fitch and Standard and Poor's downgrade, prospective Greek bank financing at the ECB appeared to have become hostage to Moody's decisions concerning its A1 credit rating (Nielsen, as reported in Bloomberg News, December 18<sup>th</sup>, 2009), particularly in the light of the ECB's early refusal to amend its collateral rules to accommodate possible further rating downgrades in Greece. Indeed, the ECB statement on January 14<sup>th</sup> that the collateral rules would not be changed for the sake of Greece contributed to a renewed period of Greek spreads widening between January 12<sup>th</sup> and January 20<sup>th</sup>.

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<sup>113</sup> The Eurosystem includes the ECB and the national central banks (NCBs) of the member states.

**Figure 5.3.1-2 Greek Banks Borrowing at the central bank**

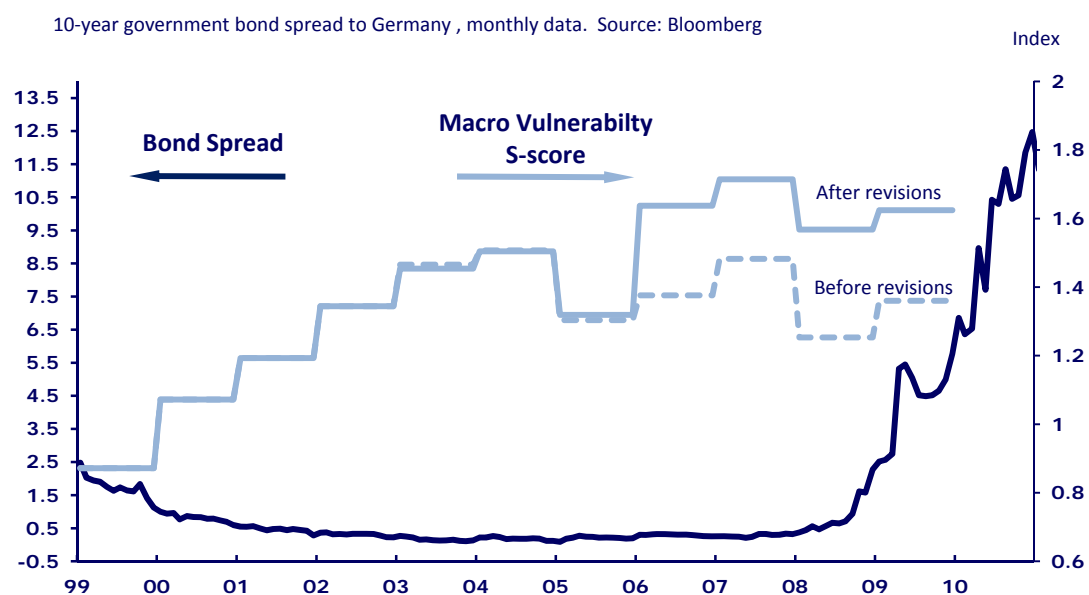
Source: Bank of Greece, % of bank liabilities



While we can single out the role of rating actions as a proximate catalyst, the ultimate catalyst was a more fundamental deterioration in the Greek government credibility which had hit investors in late 2009, following the revelation that public debt and deficits had been significantly under-reported. The Greek authorities had misled external observers, including the markets but also the rest of the EMU and the Greek public itself, and lost a great deal of credibility in the process. The trajectory of Greek public deficit and debt was significantly worse than previously thought, confidence in the transparency and reliability of official communication was all but shattered, and, crucially, the Greek sovereign's commitment to playing by the "rules" of both the EMU and the markets was put into question. Figure 5.3.1-3 extends the analysis introduced in Figure 5.3.1-2 and aligns two versions of the S-score calculated pre- and post- revisions with ten-year government bond spreads to Germany. Up to 2009, bond markets had been excessive complacent with Greek government bonds even taking into account the pre-revision data, and the late 2009 credibility hit alerted the markets to the need of better considering underlying trends<sup>114</sup>.

<sup>114</sup> Arghyrou and Tsoukalas (2011) also identify a shift in investor expectations as to Greece's credible commitment to EMU and as to the presence of an implicit intra-EMU fiscal guarantee as contributing to the Greek sovereign debt crisis.

Figure 5.3.1-3 Greek bond spreads and macro fundamentals



In so doing, Greece had undermined the credibility gain of EMU membership in two crucial respects:

1. First, the markets started to doubt the Greek sovereign's commitment to fiscal rectitude. Was the inherent preference of the Greek sovereign really to implement the consolidation measures needed to keep public finances on a path consistent with a high level of creditworthiness?
2. Second, the markets started to doubt the Greek sovereign's commitment to steering policy in a direction consistent with long term EMU membership.

All of a sudden, the degree of overextension of public finances and size of external imbalances, as well as an understanding of the political willingness to tackle these, regained primary importance in bond price determination. Meanwhile, the Greek government's concealing the true state of public finances for a number of years was set to have "reverberation" effects in Germany and elsewhere, reducing the perceived probability of external support.

The identified catalysts ignited markets' reaction to a fragile underlying context. This included a marked deterioration in the Greek macro and fiscal fundamentals, as well as the heightened dependency of Greek banks on ECB financing and the role played by government bonds in this context. Also, this came at a time when markets were becoming increasingly suspicious vis-à-vis sovereign borrowers, with international events "anchoring" investors' concerns about the debt burdens of advanced economies and related risks. Greek bonds suffered the most, suggesting brewing investor concerns about the country's creditworthiness.

As a result, after a period when country analysis was mostly ignored, bond investors started to consider Greek fundamentals more broadly and more deeply. The mapping exercise in Section 5.2 shows that a variety of domestic and international variables determined spread fluctuations starting in late 2009, ranging for example from the sovereign's financing schedule to bank balance sheets, to domestic and international political factors<sup>115</sup>. Evidence of an update in valuation and mental models used by investors to assess the same set of financial instruments in parallel with increased doubts on Greece's and generally developed sovereign creditworthiness provides empirical support for proposition 1 of our theoretical framework and the conceptual point specifically derived on government bond markets, arguing that the depth and breadth of investor analysis of sovereign borrowers evolves over time.

The compression of risk premia on Greek bonds to almost insignificant levels in the mid-2000s, even as economic imbalances were building in the country, suggests that investors did not attribute much value to specific analysis of Greek fundamentals over that period. Then, a mix of events and environmental changes heightened the need and usefulness of deeper and broader analysis of the issues specifically concerning the creditworthiness of each sovereign under consideration. The credibility reassessment described above induced investors to re-focus on individual country differences. The impact of the credibility reassessment was reinforced by the changing international backdrop. The November 2009 credit turmoil concerning Dubai World, previously considered to be a highly creditworthy

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<sup>115</sup> Sections 5.3.2 and 5.3.3 will look more in detail at the influence of domestic and international political economy factors.

entity<sup>116</sup> contributed to turn the spotlight on the weakest sovereign borrowers, and Greece in particular. However, the broader global financial crisis likely played a significant background role in influencing market attitudes, as investors had recently experienced how asset quality had rapidly and catastrophically deteriorated in other markets previously perceived as 'safe' (for example the US housing market, AAA rated CDOs).

The events mentioned above likely also impacted more broadly on investors' beliefs about the relationship between EMU membership and sovereign creditworthiness. On top of the effects of the "great moderation" in global bond markets and Mosley's broader finding that developed democracies' government bonds were typically judged on the basis of just a few macroeconomic short-cuts, EMU entry also appeared to have encouraged investors to reduce their efforts to differentiate among sovereign borrowers within the region. The investment community seemed to assume that the solvency of EMU members was more or less guaranteed by EMU participation, be this because of the presence of stricter peer and EU level controls<sup>117</sup> or because of the low credibility of the Maastricht and the no-bail-out clause. A similar interpretation of the consequences of EMU membership would not have made additional independent analysis a cost-effective allocation of resources.

The revelation of Greece having misled its European peers about the fiscal numbers, along with the initial statements of German and European authorities that Greece was "on its own" in carrying out a programme of adjustment, likely reduced markets' faith in EMU membership as a guarantee of creditworthiness, either because this clearly revealed a failure of the European authorities to identify and avoid abuses or because it reduced the likelihood that EMU partners would be willing to provide financial support in case of need. Overall, investors had an additional reason to increase the resources dedicated to the analysis of each country's fundamental situation.

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<sup>116</sup> This was at least partly due to markets erroneous impression that the entity enjoyed a de jure or de facto government guarantee.

<sup>117</sup> Had the Stability and Growth Pact and related procedures been fully credible, country monitoring could have been considered as completely "outsourced" to EMU institutions, limiting the need for markets to carry out independent analysis. However, repeated violations without material consequences had likely progressively reduced the credibility of the fiscal rules in financial markets.

Additionally, the risk that further rating downgrades might make Greek bonds ineligible as collateral in ECB open-market operations hugely increased the cost of mistakes in assessing the nuances of Greek sovereign debt creditworthiness and possible changes, even at a time when the eventuality of outright default or restructuring was not yet on the radar-screen. As the equal treatment of all EMU countries' government bonds at the ECB window had encouraged bond investors to see them as interchangeable and reduced incentives to carry out detailed analysis to differentiate across EMU sovereign debt issuers, the prospect that the bond of one of these countries might be treated differently at the ECB repo operations encouraged a return to greater intra-region differentiation and related analysis.

### **5.3.2 Domestic political economy of the Greek sovereign debt crisis**

Financial markets did not appear too concerned with Greek political dynamics in the first few years of the country's EMU membership. Greek politicians and bond investors virtually ignored each other for a long period, but that started to change when default risk became salient in investors' minds.

When George Papandreou came to power in October 2009 and loudly declared the "explosive" situation of the Greek economy inherited from the outgoing administration, he was clearly talking with domestic politics in mind, oblivious of any unsettling effect that his rhetoric might have on external observers. Years of low interest rates under the "EMU umbrella" had rendered Greek politicians quite complacent as to the effect that their messages might have on financial markets, rating agencies and Euro area partners.

Just a few weeks - and a few additional percentage points worth of funding costs - later, however, Papandreou was promising to do "whatever is required" to calm financial market nerves. Papandreou was now facing the conflicting pressures of an electorate averse to austerity and reform, on the one hand, and the adjustment demands of the markets, as well as the EU and the IMF, on the other hand.

A dramatic political economy trade-off had emerged. In play were the austerity demands of financial markets, Germany and the “troika”<sup>118</sup>, versus the preferences of the domestic electorate. Domestic voters, particularly public sector employees, were highly attached to the entrenched system of privileges and had very little exposure to Greek government bonds (see Figure 5.3.3-4), putting them on a sure collision path with bond investors.

To the extent that investors increasingly appreciated the enormity of the adjustment required for Greece to return to a sustainable fiscal path while remaining in the EMU, the degree of “political willingness” to tackle these issues became increasingly relevant to risk premia. The coincident credibility reassessment hitting Greek authorities complicated matters significantly.

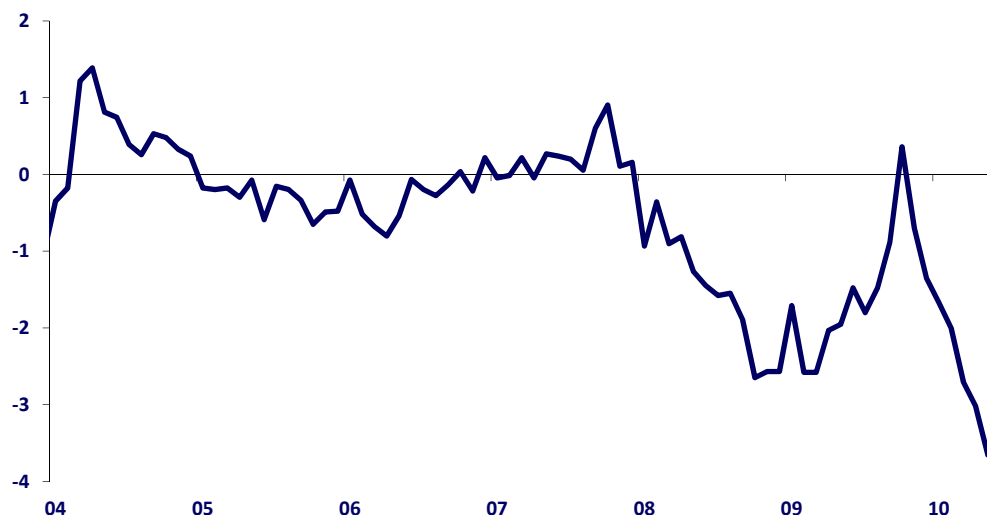
The bond moves identified in Section 5.2 suggest that markets took some interest not only in the size of the adjustment packages progressively proposed by the Greek government, but also in the commitment to actually implement those plans, and in signs that they would or would not be accepted by a broad share of the Greek population. The market attention to the political sustainability of the austerity measures increased, along with the magnitude and duration of the fiscal pain imposed on the population.

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<sup>118</sup> Troika is a term that entered the market and popular jargon during the Euro area sovereign debt crisis to indicate the group of three institutions charged with monitoring and directing adjustment programmes in debtor countries and loan disbursements, as well as generally contributing to the resolution of the crisis. It is made up of the European Central Bank, the European Commission and the International Monetary Fund.

**Figure 5.3.2-1 Greece Consumer Confidence**

EC survey, standard deviation from long term average. Source: European Commission



The “credibility” literature would anticipate that Greece’s low number of institutional checks and balances would have undermined the sovereign’s credibility in financial markets during the sovereign debt crisis, while the alternative “consolidation” approach would imply lower sovereign risk perceptions, due to greater ease of enacting adjustment measures.

As mentioned in Chapter 4 in the introduction to the event studies, the number of institutional checks and balances in the Greek political system is at the low end of the spectrum for developed democracies. The World Bank database of political institutions assigns Greece a score of 3 for checks and balances<sup>119</sup> in both 2009 and 2010, among the lowest in Western Europe.

Greece has a two-party, unicameral parliamentary system, where a single party controls the government. The government has extensive agenda control and can impose its will on parliament “regularly and extensively” (Tsebelis, 2002, p. 106). Indeed, the “constitutional strength of the executive branch of government is unusually strong” (Featherstone, 2011, p. 195). In the October 2009 election, the PASOK party obtained an absolute majority,

<sup>119</sup> This metric is described in Chapter 4.



leaving Prime Minister Papandreou with the support of 160 out of 300 deputies in parliament - not a huge margin, but sufficient to ensure independence from other parties. Notably, the institutional concentration of power is reinforced by the dynastic nature of the political elite, with the two main parties - PASOK<sup>120</sup> (Social Democratic) and New Democracy (Conservative) - dominated by the Papandreou and Karamanlis family dynasties respectively.

Crucially, the credibility reassessment that we identified in Section 5.3.1 as a catalyst for the debt crisis can be traced back to two of the typical consequences of a high concentration of political power, as identified by Tsebelis (2002): a high degree of policy instability and a low degree of bureaucratic independence. The falsification of statistical accounts was facilitated by the low independence of the statistical administration from the political authorities. After the leadership change, a decisive change in political priorities contributed to the dramatic revelation of the previous misreporting. On the other hand, in the period under consideration, the government could pass consolidation measures in parliament without the need to negotiate the support of other veto players within the formal institutional setting. The low number of formal checks and balances avoided the disruptions, delays and compromises that would have derived from negotiations with coalition partners. The mixed evidence so collected suggests that the institutional veto player is by itself not sufficient to explain differentials in market attitudes towards the sovereign.

Indeed, hypothesis 2.2 of our theoretical frameworks identifies high levels of socio-political contestation as a likely source of market concern.

The narrative in Section 5.2 shows quite clearly that during the Greek sovereign debt crisis the absence of social cohesion reduced the effectiveness of the low dispersion of power within formal political institutions at dispelling financial market concerns. In the mapping exercise, we saw that each time the government proposed and the parliament voted adjustment and reform measures, a strongly conflictual attitude from opposing political forces emerged and social unrest followed, in the form of strikes and popular protests.

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<sup>120</sup> Pan-Hellenic Socialist Movement

Protests became larger and louder. Popular and political support for Prime Minister Papandreou and his government weakened to the extent that the sacrifices required increased. This further undermined the already feeble credibility of the Greek sovereign's medium-term commitment to complying with the new plans, leading to quick reversals of any positive market reaction following the announcement of additional consolidation plans.

Through the mapping exercise in Section 5.2, we found direct evidence of the link between socio-political contestation and government bond risk premia in the Greek episode. For example, the market impact in February 2010 of the promise of support by European partners and the Greek government's announcement of additional tightening and reform measures was undermined by, *inter alia*<sup>121</sup>, three days of anti-austerity general strikes on February 23<sup>rd</sup>-24<sup>th</sup>. At the end of the month spreads were back to the levels seen prior to the EU and Greek government shows of commitment. This type of dynamic emerged even more dramatically when the crisis accelerated in April and early May 2010. Notably, against the backdrop of large and at times violent protests in Greece, bond spreads continued to surge in spite of the release of a 110 billion euro EU/IMF support package and a tougher schedule of fiscal consolidation published by the Greek government and quickly approved by parliament<sup>122</sup>.

The behaviour of bond spreads suggests that financial markets had a sense that the unilateral nature of the decisions taken in a democratic but inherently unstable political system might not prove sustainable over time without broad popular support. Thus, increasingly large and onerous consolidation packages had modest and diminishing returns in terms of market sentiment.

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<sup>121</sup> The other factor that contributed to undermining the credibility of the EU and Greek actions was the sceptical reaction of public opinion and various politicians in Germany. The international aspects will be analysed separately in Section 5.3.3.

<sup>122</sup> As in the prior instance, other factors played a role in undermining the market impact of those measures, and it is impossible to disentangle exactly the magnitude of the impact of each one. That said, the impact of popular protest as a contributory factor emerges very clearly from the mapping exercise.

The sources of Greece's lack of social cohesion lie in its history. The young Greek democracy inherited a high degree of political polarization and an overall confrontational attitude from its experience of foreign occupation, civil war and dictatorship.

Over the last thirty years, the policies of the two main parties converged towards the Centre (Pappas, 2003), but some of the ideological and behavioural traits typical of polarized systems remained. Papandreou's accusation and condemnation of the outgoing New Democracy government, as well as the perennially critical and anti-collaborative tone of the opposition seen during the crisis, are two of the typical features identified by Sartori (1976) in his description of polarized pluralism.

In the process of construction of the Greek state, the political elite used the welfare state for the purpose of "consensus building via clientelistic practices" (Ferrera, 2005, p. 23). The social cleavages based on the "individual welfare consequences of a giant spoil system" (Kalyvas, 2006, p. 98) remained entrenched in society. The high incidence of general strikes, organized in protest at government policies, provides a measure of conflictuality in the system: out of a total of 85 general strikes in Western Europe in the years from 1980 to 2008, 38 took place in Greece (Kelly and Hamann, 2010). The disproportionate strength of public sector employees in union confederations (Featherstone, 2008) further enhanced the combativeness of organized labour as the government planned increasingly tough cost-cutting measures in the public sector in order to comply with external pressures to redress public finances. This was not new: as highlighted by Featherstone (2008), the Greek government's capacity to enact reforms in the pension system and labour market were constrained by the strong voice of public sector employees engaged in protecting their pension benefits and employment status for at least a decade before the crisis.

Featherstone (2011) highlights how "multiple veto points thwart the formal power of government in the Greek political system" (Featherstone, 2011, p. 198). During the sovereign debt crisis, opposition to dramatic plans for change not channelled through the formal checks and balances of the institutional political system was expressed through criticism and popular protest, reaching financial markets' radar screens in all their vigour and causing investors to doubt Greece's commitment to fiscal and structural adjustment. Thus, the high level of socio-political contestation and the interaction between a low

number of institutional checks and balances and a high degree of socio-political contestation (as in hypothesis 2.3 in our theoretical framework) are better at explaining the Greek sovereign's relatively lower level of credibility during the sovereign debt crisis than the number of formal veto players by itself.

### **5.3.3 International political economy of the Greek sovereign debt crisis**

To the extent that the Greek authorities lost their credibility vis-a-vis market participants, markets' attention broadened from specific Greek factors to the attitude of EU partners towards a possible financial backstop that would help Greece deal with its public finances problems and reinforce its interests in remaining in the EMU. How far EMU partners would be willing to go to help Greece put its fiscal house in order was an unknown at the beginning of the crisis and a process of "discovery" unfolded throughout the six months that led to the creation of the European Financial Stability framework. A no-bail-out clause (Article 104b) was enshrined in the Maastricht Treaty as a key element of monetary union, but the political economy of the bail-out versus default decision pointed in the other direction, and throughout the period markets tested EMU members' resolve to go one way or the other.

Since an automatic centralized rescue mechanism did not exist, and the ECB did not take an active role in shoring up the crisis, the form and extent of financial support for Greece had to be progressively negotiated among EMU country leaders, with the key decisions made by the European Council and often requiring approval by national parliaments. The national authorities were effectively the key decision-makers in the process that led to the Greek bail-out<sup>123</sup> as well as to the creation of the area-wide rescue fund. In this context, Germany, the country with the most financial clout and generally considered the ultimate source of EMU credibility and stability, held the key veto in the collective decision process. Meanwhile, the European institutions and the IMF mostly acted in a 'supporting' role in that period.

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<sup>123</sup> Indeed, the bulk of the first Greek bail-out was made up of bilateral loans, rather than coming from a joint rescue mechanism.

The political economy trade-offs surrounding a Greek bail-out decision created a significant political dilemma in Germany. The benefits of contributing to financing a rescue package would mostly come indirectly, in the form of avoiding systemic risks of contagion and preserving the integrity of the EMU,<sup>124</sup> while Germany's direct financial and trade linkages were relatively minor,<sup>125</sup> and the country did not run a material risk of contagion in terms of government borrowing costs. Meanwhile, Germany's ideological position was diametrically opposed to accepting fiscal laxity and burden-sharing within the EMU. Germany was the main proponent of the Maastricht no-bail-out clause and fiscal rules, and saw these as a crucial condition for accepting the monetary union. The long-standing ideological aversion to fiscal profligacy and intra-EMU bail-outs was all but reinforced by Greece's perceived deceitful attitude over the years with regard to its fiscal accounts and lack of progress on structural reform.

Hypothesis 3.1 of our theory postulates that, when assessing the creditworthiness of a sovereign in difficulty, bond markets will consider the preferences of de-facto external veto players that emerge as a result of the default/consolidation/bail-out decision. We identified Germany as holding the key external veto in the Greek rescue decisions; thus, the German position in this regard, its fluctuations and the domestic political dynamic contributing to shaping these, should be expected to have had a meaningful influence on Greek risk premia.

The narrative in Section 5.2 shows that bond markets became increasingly sensitive to German preferences and German political dynamics as the crisis intensified; in the latter part of the period under consideration, any resolution to the Greek crisis had become crucially dependent on Germany's preferences about a possible rescue package, and this was reflected in financial market sensitivities.

The impact on bond markets was magnified by the fact that decisions had to go through a complex system of checks and balances in Germany, with the difficulty of the domestic

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<sup>124</sup> The potential costs of a disorderly Greek default, possibly involving EMU exit, tended to increase as the crisis unfolded, as the Eurosystem (and particularly the Bundesbank through TARGET2 balances) became increasingly exposed to the Greek risk, and as contagion threatened to involve increasingly large EMU member countries.

<sup>125</sup> Additional figures on different country exposures to Greece will be provided in the latter part of this section.

trade-off being reflected in the political discourse. The World Bank DPI assigns Germany a CHECKS score of 5 for both 2009 and 2010, one of the highest in Western Europe. If the additional ex-post veto power of the Constitutional Court<sup>126</sup> is added, power diffusion results are even higher. Against this backdrop, the German political dynamic affected financial markets through four main channels in the period under consideration.

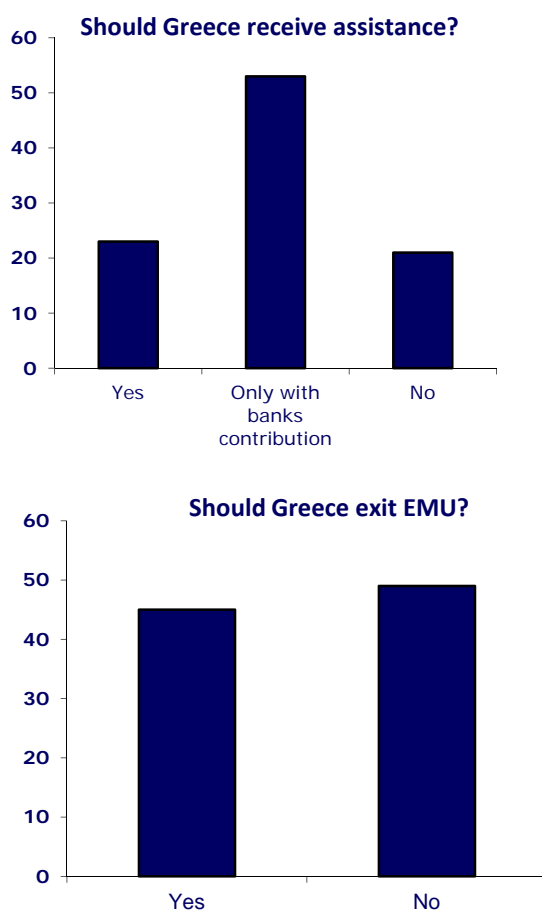
First of all, markets were sensitive to Chancellor Merkel's ambivalent position. This ambivalent position came through in her rhetoric as she had to deal with the conflicting pressures of Germany's responsibilities within the EMU and the interests of German banks, on the one hand, and widespread domestic popular opposition to intra-regional subsidies, on the other hand. In a number of cases, while she approved joint EMU or EU initiatives to either verbally or financially support Greece, she maintained a severe tone towards Greece, particularly in her speeches intended for the domestic audience. This, along with the prevailing negative commentaries of the popular press, hostile survey results, and open criticism from various MPs, unsettled markets, contributing to dampening the positive impact of announcements of area-wide support initiatives agreed in the meantime.

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<sup>126</sup> A number of political scientists consider the German Constitutional Court as an additional veto player, albeit with somewhat different features from the traditionally identified players.

Figure 5.3.3-1 Survey of German voters, April 2010

Source: Infratest Dimap, % of votes



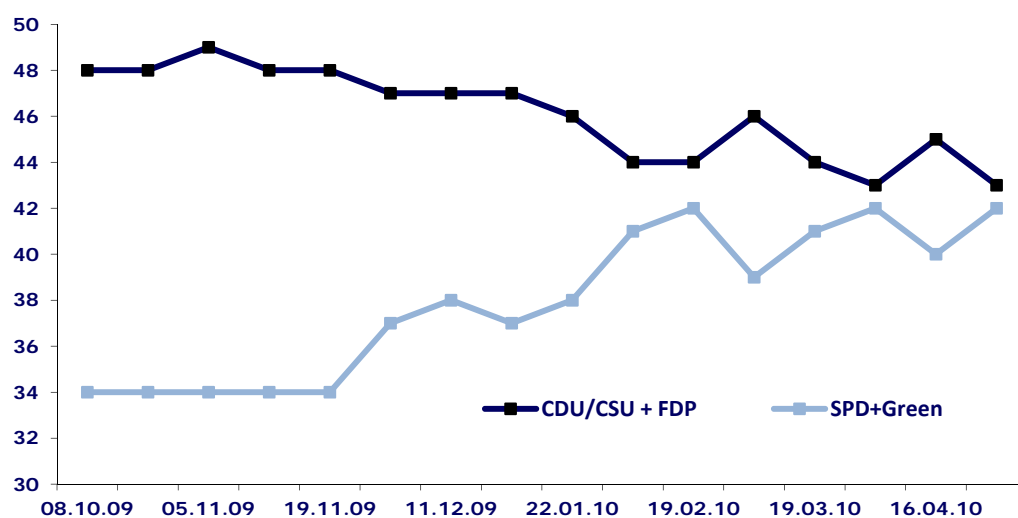
In the last few weeks of the period under consideration, at the height of financial market tensions, Merkel's position was complicated by an upcoming election in Germany's most populous state, North Rhine-Westphalia. An electoral defeat for the CDU/CSU<sup>127</sup>-FDP coalition in that state on May 9<sup>th</sup>, 2010 would be a serious blow for Merkel's government. In fact, the governing coalition would as a consequence lose its slender majority in the *Bundesrat*, or Upper House of parliament. In Germany's federal system, the Upper House of parliament is composed of representatives from the state governments and its vote is needed for the passage of all laws with financial implications as well as for changes to the

<sup>127</sup> CSU is the Bavarian Christian Social Union, sister party of the CDU.

constitution<sup>128</sup>. With strong evidence of voter opposition to the Greek rescue and a falling approval rating, the Chancellor found herself between a rock and a hard place, and her attitude and policies reflected that. Indeed, the larger rescue package of May 10<sup>th</sup> was not finally approved by Merkel until the night after the North Rhine-Westphalia elections<sup>129</sup>.

**Figure 5.3.3-2 Germany: voter preferences at the Federal level**

Source: Infratest Dimap, % of respondents



Examples of the role that Merkel's rhetoric played in affecting market confidence can be found throughout Section 5.2. For example, it was visible when Greece made a formal request for aid on April 23<sup>rd</sup> and Merkel continued to emphasize the need for Greece to meet the required conditions, on the occasion of her electoral rallies in North Rhine-Westphalia; or when Merkel highlighted to the German parliament that the agreement on the contingency support mechanism in early March was of an abstract nature. In contrast, Merkel's supportive tone on April 28<sup>th</sup>, when she gave assurances that Germany would do its part in protecting the stability of the Euro area, contributed to at least temporarily reassure markets.

<sup>128</sup> With different majority requirements.

<sup>129</sup> Merkel's party lost the election regardless.



Second, markets were concerned about the process of approval of the support packages through the two houses of the German parliament, the *Bundestag* and the *Bundesrat*. Merkel's junior coalition partner, the FDP, was openly opposed to supporting Greece, while numerous opponents were also to be found within her own CDU/CSU party. The Centre-Left opposition was also in an ambiguous situation, as they were ideologically more inclined to offer support to Greece than the ruling conservatives, but were also understandably reticent about supporting the opposite side. Market doubts on eventual parliamentary approval arose with regard to any joint EMU and EU decision that required national approval. For example, the threat by Merkel's coalition partners in the FDP to block any aid in parliament contributed to reversing the positive market impact of the early February declaration of Euro area support. Even more strikingly, uncertainty about German parliamentary approval of the 110 billion euro loan package agreed on May 2<sup>nd</sup> contributed to reducing the impact of the news, with Greek spreads continuing to surge towards new highs in spite of the announcement<sup>130</sup>.

Third, markets were shaken by the possibility that the German Constitutional Court could overturn a bail-out decision by declaring it unconstitutional in the light of the Maastricht Treaty and the German constitution. News that German academics were submitting a claim to the Constitutional Court contributed to negatively affecting market sentiments in at least two instances, on April 14<sup>th</sup> and May 5<sup>th</sup>, according to our mapping exercise.

Overall, the abundance of checks and balances in the German political system, as well as the electoral cycle, contributed to slowing down the decision-making process, leading to a series of half-hearted attempts to provide support that were not sufficient to convince markets of the country's resolve to fully engage in case of need. Rebuilding the confidence of the markets would have required decisive, unconditional action. Instead, the difficulties posed by the German domestic dilemma and decision-making process often led to unsatisfactory compromises (for example, as Germany for a while did not accept a subsidized interest rate for a potential Greek loan), while the inherently higher risk of failure limited the effectiveness of area-wide support announcements. We saw in Section 5.3.2 how evidence of social aversion to structural reform and fiscal austerity - key

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<sup>130</sup> Besides a 50 basis points decline in the immediate aftermath of the announcement.

requirements for Greece to obtain external support - contributed to keeping markets cautious. Evidence of Germany's reluctance to throw its full and unconditional support behind the rescue plans appeared to worry markets at least as much, particularly once it became clear that Greece would not be able to deal with the situation on its own.

The relevance of German domestic political constraints in shaping the Greek sovereign debt crisis underscores how a country's risk premia can be sensitive to political dynamics in a country considered to hold veto power in relation to a possible bail-out, and generally provides clear evidence of the importance of de-facto external veto players that may emerge in the default/consolidation/bail-out decision, in line with the prediction of hypothesis 3.1.

Hypothesis 3.2 extends the analysis to consider the international political economy features of the debtor/creditor relationship that may affect the financial market credibility of the debtor sovereign. In particular, it argues that a higher degree of economic, financial and ideological proximity between sovereign debtor and creditor countries will reduce the debtor's sovereign risk perceptions. This argument is articulated from the perspective of both the sovereign borrower and creditor countries.

As seen in the introduction to the event studies in Chapter 4, Greece displays a remarkably low level of economic and financial integration with the rest of the EMU and the global economy in general. Moreover, its track record in terms of applying EU and Euro area policy and reform requirements was quite bad by the time the crisis started (as shown for example by Featherstone, 2008) and remained tentative in the first stages of the crisis. Greece's attitude led to doubts about the country's commitment to staying in the EMU, and its appetite for fiscal discipline put it on a collision course with Germany, the key external veto player identified above.

Looking at the role of proximity from the perspective of Greece, we noted in Chapter 4 that the country has a very small export sector (apart from tourism) and has typically attracted only modest levels of foreign direct investments (FDIs). Figure 5.3.3-3 summarizes Greece's external trade and foreign direct investment position. In addition to the relatively low level of overall exports (23.5% of GDP), the diminutive size of goods exports (7.7% of GDP), and

the low level of inward FDIs (16% of GDP), the direction of Greece's trade also emerges as relatively skewed towards non-EMU countries.

**Figure 5.3.3-3 Greece exports and FDI**

2007, Eurostat	
	<i>% of GDP</i>
<b>Exports of Goods and Services</b>	23.5%
<b>Merchandise Exports</b>	7.7%
<b>to EMU</b>	3.4%
<b>to ex-EMU</b>	4.3%
<b>Inward FDI Stock</b>	16%

In contrast to the low level of overall economic openness described, by the time the crisis started most (77%) of Greece's government debt was held by foreigners. Details of the Greek government debt holding structure in late 2009 are given in Figure 5.3.3-4. The combination of the prevalence of foreign debt ownership and low economic integration in other areas made the conflict between the interests of bondholders and domestic constituencies even starker. By definition, foreigners lacked direct representation within the political system; moreover, the weak degree of trade and foreign direct investment integration of Greece with the rest of the EMU made it less likely for external interests to be represented through the "issue-linkages" mechanism and cross-issue coalitions.

**Figure 5.3.3-4 Greek Government Bond Ownership - end of 2009**

Source: Bank of Greece and JPMorgan (2009) estimates		
	<b>Euro billions</b>	<b>% of Total</b>
<b>Bank of Greece</b>	23	8%
<b>Greek Banks</b>	32	11%
<b>Other Domestic</b>	10	4%
<b>Foreign Mutual</b>		
<b>Funds</b>	70	25%
<b>Other Foreign</b>	145	52%
<b>Total</b>	280	100%

Looking at the role of proximity from the perspective of foreign creditors, a consequence of Greece's low level of external trade and foreign direct investment links was that it did not represent a particularly important external trade partner for any other EMU country. Nonetheless, other countries could potentially be hit by a Greek sovereign default through two main channels: banks' (and insurance companies') balance sheets and financial market contagion. In the background was also the risk of possible broader damage to the EMU and European project itself.

By the end of 2009 most Greek government debt was on the balance sheet of foreign financial institutions (including banks, insurance companies and pension funds), which would be forced to make provisions and take eventual losses in the event of a debt restructuring. A sovereign debt crisis, and particularly a disorderly default, would depress not only government bonds prices, but the valuations of the broader range of Greek financial and real assets. Figure 5.3.3-5 illustrates the total claims on Greece as reported by banks in the Euro area and other major countries, a more comprehensive measure of overall exposure.

Altogether, by the end of 2009, foreign exposure to Greece was relatively modest when related to the size of the economies of the creditor countries<sup>131</sup>, although it was concentrated in Europe and could possibly have been of concern for those individual banks that had become more involved in the country. Notably, French banks carried the largest exposure, with Crédit Agricole and Société Générale facing additional risks due to their ownership of Greek subsidiaries Emporiki and Geniki respectively. Meanwhile, Germany was relatively less exposed, with bank claims totalling a mere 0.4% of bank assets.

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<sup>131</sup> As a reference, the exposure of the global banking system to Ireland was almost double that in the case of Greece, despite Irish GDP being smaller than Greece's.

Figure 5.3.3-5 Foreign bank claims on Greece - end of 2009

Source: BIS and JPMorgan\*, ultimate risk basis

	<b>Euro billions</b>	<b>% of Bank Assets</b>	<b>% of GDP</b>
<b>France</b>	76	0.7%	2.8%
<b>Germany</b>	39	0.4%	1.1%
<b>Netherlands</b>	11	0.4%	1.3%
<b>Ireland</b>	9	0.4%	2.3%
<b>Portugal</b>	9	1.3%	2.6%
<b>Italy</b>	8	0.2%	0.4%
<b>Belgium</b>	7	0.4%	0.9%
<b>Austria</b>	5	0.3%	0.9%
<b>Spain</b>	1	0.0%	0.1%
<b>Euro area</b>	165	0.4%	1.3%
<b>Switzerland</b>	73	2.6%	15%
<b>US</b>	14	0.1%	0.1%
<b>UK</b>	12	0.1%	0.5%
<b>Japan</b>	7	0.1%	1.5%
<b>Total</b>	272	0.3%	0.9%

\*JPMorgan (2009)

Note: Euro area is sum of the top ten claimants as shown above; Switzerland's figures are boosted by EFG International being registered as Swiss domiciled at the time.

Obviously, the risk of financial market contagion to the debt of other EMU countries, as well as that of a systemic contagion through the banking channel, meant that the potential damage of a Greek sovereign default for the Euro area (and global) financial system was much larger than the figures on direct bank exposure would seem to indicate. However, this was not a specifically Greek feature, and the most immediate risk of a dramatic interest rate contagion (with the ultimate threat of leading to actual default) concerned the most vulnerable peripheral economies (Ireland and Portugal), rather than the financially stronger core EMU economies.

In all, the immediate incentive to Germany and its main constituency to avoid a fiscal crisis in Greece appeared to be relatively low, particularly in the first stages of the spread

widening<sup>132</sup>, and this was reflected in the hostile attitude of the German population. As mentioned above, Germany's motives for shoring up a crisis in Greece were mostly "systemic", either in defence of EMU or to avoid regional and global financial contagion; this was particularly hard to explain to domestic voters. The direct incentive to finance a rescue package was somewhat higher in France, with its higher overall exposure to Greece, and in vulnerable peripheral countries looking to minimize the risk of contagion, which helps to explain their more conciliatory attitude.

The analysis carried out in this section suggests that the low level of proximity between Greece and its main sovereign creditors, which at times translated into tense relations with Germany, the holder of the key external veto, contributed to increasing financial markets' scepticism about Greece's debt repayment likelihood, in line with the prediction of hypothesis 3.2. The evidence given here of the broader role played by Greece's relatively low level of proximity to the rest of the EMU is derived mostly indirectly from an overall assessment of Greece's position and an integrated reading of the narrative, rather than pinned to specific events and market moves, and it will benefit from further verification by a comparison with developments in Ireland in Chapter 6.

A point that emerges directly from the mapping exercise in Section 5.2 is that changes in markets' perceptions of external bail-out probabilities did have considerable impact on Greek risk premia in the period under consideration. Generally, markets were sensitive to news concerning the likelihood and magnitude of potential and actual support from the rest of Europe. The role of external factors appeared to increase, to the extent that the situation of the Greek sovereign worsened. Against this backdrop, the markets' ride was far from smooth, as the international political economy drama of the default versus bail-out options unfolded under investor scrutiny over a number of months. A cycle of increasing market pressure, incremental statements of European support accompanied by additional Greek commitment to budget cuts, and negative popular response in both Germany and Greece unfolded a number of times over the period, unnerving investors and generating volatility in EMU bond markets.

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<sup>132</sup> Of course, the perceived cost of a possible Greek sovereign default increased for Germany as well as for the other countries as the crisis intensified and threatened to spread to the rest of the region, and possibly hit the integrity of the monetary union itself.

In the first stages of the crisis, up to the end of January 2010, EU officials and EMU partners mostly treated the emerging problems as a specifically Greek fiscal issue, to be handled with the traditional tools used up to that point in the EMU fiscal framework. In the first few weeks, EU officials were very vocal in expressing exasperation with Greece's 'fiddling' of public accounts, as well as in exhorting the new government to take corrective action. That the clause softening the thrust of the no-bail-out clause actually referred to "severe occurrences caused by exceptional circumstances beyond its control" (Art. 103a, Maastricht Treaty) clearly did not help at the beginning, given the country-specific origin of the problem.

About a year earlier, at the height of the global financial crisis, the EU had participated in support packages for non-EMU EU countries in difficulty (Hungary and Latvia) and German Chancellor Merkel had contributed to stemming a broad-based widening in intra-EMU spreads by an oral commitment to intra-regional support. Meanwhile, the lack of a strong statement of support coming out of the December 2009 European Council meeting left the door open for markets to further test both Greek and EU resolve. As seen in Section 5.2.2, repeated promises of commitment by the Greek government and an EU-backed consolidation plan were unable to stem the climb in Greek yields in early 2010; it was only when EMU partners shifted gear in terms of possible financial support that the spreads stabilized, holding at elevated, but fairly stable and manageable levels throughout February and March. However, while markets were clearly open to listening to oral commitments of support and were initially (at least temporarily) appeased by fairly general promises of help, they became more demanding of specific details first and actual money disbursement later: in April 2010, even the announcement of a 40 billion euro rescue facility was insufficient to assuage the market rush to sell Greek bonds; the agreement in early May of 110 billion euros worth of aid did not fare any better.

During the entire period, European authorities appeared to be reacting to market pressure, rather than managing to assume the lead. When markets were already seeing the Greek problem as a potential liquidity crisis, EU authorities were still dealing with it as a fiscal policy issue. Then, when markets had already moved on to worry about the possibility of a fully-fledged solvency crisis, EU authorities were still trying to tackle it with tools more

adapted to a liquidity problem. It was only when pressure became extreme that EU governments finally agreed on the formation of a large and credible backstop mechanism.

## 5.4 THE ROLE OF POLITICS BEFORE 2008

The event study in this chapter was targeted to testing the impact on government bond spreads of the political economy factors identified Chapter 3, with a focus on the Greek sovereign debt crisis.

In this section, we integrate the detailed event study with a broader look at developments between EMU entry and the start of the global financial crisis. For Greece, this corresponds to the years between 2001 and 2007, a period which in turn falls within the “moderation” phase of Euro area sovereign bond spreads as we named and described it in section 1.3.2. During that period, the S-score and M-score analyses in Chapter 4<sup>133</sup> highlight a deterioration in Greek macroeconomic fundamentals that was not captured by government bond spreads. We now review it in order to investigate a potential role for politics outside of the sovereign debt crisis period.

In contrast to the scarcity of analysis concerning the sovereign debt crisis identified when designing this research project, numerous quantitative studies of Euro area bond spreads were produced in the first few years of EMU, and they were reviewed in Chapter 2. The results of those studies are broadly consistent with Mosley’s findings for the period up to 1997: investors focussed on a limited set of macro indicators when choosing government bond investments in developed nations. In particular, the identified analyses of Euro area bond spreads generally found a limited role for domestic fundamentals, which were often overlooked in favour of liquidity differentials and swings in international risk aversion. To the extent that domestic fundamentals mattered, investors were found to focus on the overall level of public budget deficit and debt (as a percentage of GDP). This suggests limited change in credit risk valuation methods compared to Mosley’s findings for the prior decade. Meanwhile, not surprisingly, interest in the price inflation data faded out, reflecting

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<sup>133</sup> In addition to the material presented earlier on in this chapter, sections 4.4.2 and 4.4.3 describe Greece’s macro economy backdrop and develop the mentioned summary indicators.



the perceived fading of inflation risk differentials in the monetary union<sup>134</sup>. Mosley herself highlights the diminished role of inflation differentials in driving intra-Euro area investment choices after EMU entry (Mosley, 2004).

Since none of the existing quantitative studies found a role for political factors, we adopt a narrative approach aimed at testing for the possible role of domestic and international political factors beyond the broad-brush approach of large-n analyses. As in the event study, we use 10-year Greek government bond spreads to Germany as the key dependent variable. To identify relevant explanatory factors, we use articles from the Wall Street Journal Europe, economic data from Eurostat, and official information from the European Commission<sup>135</sup>. We identify the crucial European political economy news over the period, and align them with moves in bond spreads. The bond market reaction, or lack thereof, to that news allows us to assess the interest of financial markets in the identified European political economy events.

As highlighted a number of times throughout the thesis<sup>136</sup>, Euro area bond spreads fell to very low levels in the first ten years of EMU. As a result, the moves observed in that period are tiny compared to developments in both the prior and the following years. The small size and volatility of bond spreads and the limited role attributed to fundamentals by the existing quantitative research also suggest that the role of politics will probably have been more subtle than during the sovereign debt crisis, when large moves in spreads were identified. Given these caveats, we move on to review the Greek experience in the first years of EMU in order to identify possible signs of the relevance of domestic or international politics.

Figure 5.4.1 illustrates 10-year Greek government bond spreads to Germany during the period 1999-2008. For reference, it also shows developments in the average of all Euro area

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<sup>134</sup> The relative role of inflation and credit risk in before and after the creation of a currency union and their connections to the credibility of the currency union and its rules are analysed in section 1.3.3.

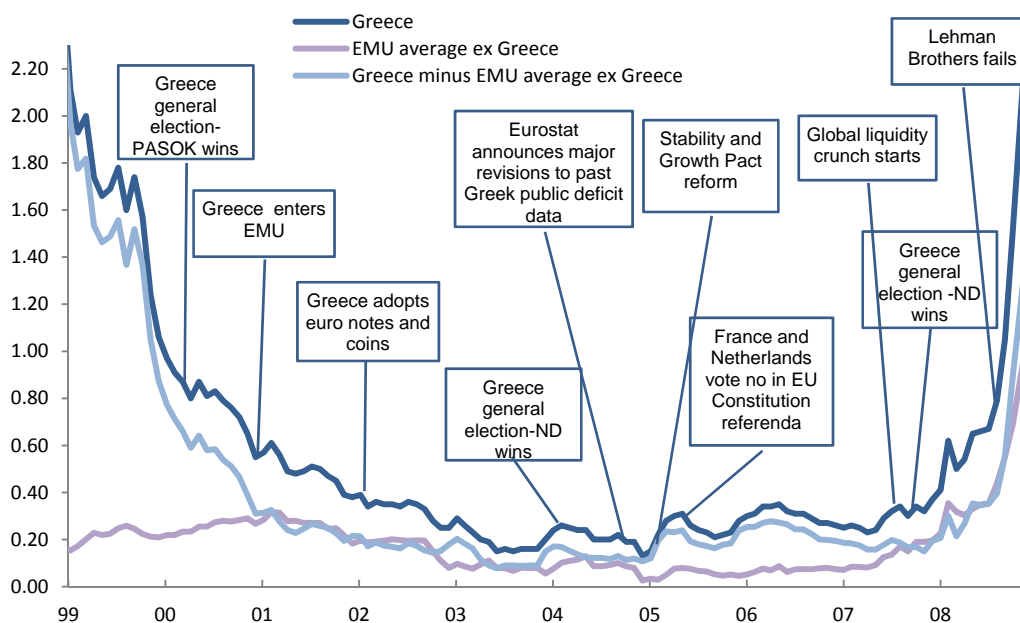
<sup>135</sup> The Wall Street Journal is widely read across financial markets, including banks, asset managers, pension funds, hedge funds and sovereign wealth funds.

<sup>136</sup> This is specifically described in section 1.3.2.

bond spreads excluding Greece and the difference between Greece and the average of the rest of the Euro area. Finally, it highlights the main events concerning domestic politics and the European political economy backdrop.

**Figure 5.4-1 Government bond spreads and key events**

Difference in long term bond yields for Maastricht criteria, % per annum , monthly, source: Eurostat



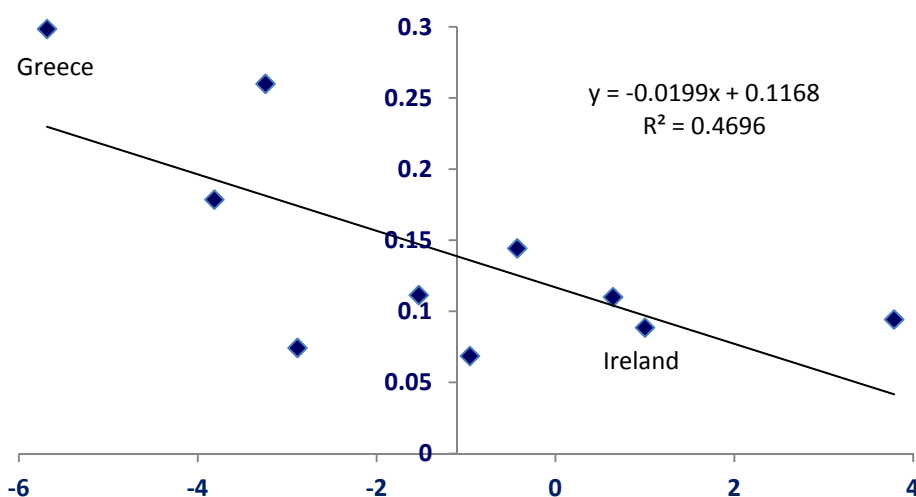
For Greece, the years 1999 and 2000 correspond to the final stages of government bond yield convergence ahead of joining EMU. Greece was officially accepted into the monetary union by the European Council in 2000, entered EMU on January 1<sup>st</sup> 2001 and introduced euro notes and coins on January 1<sup>st</sup> 2002. 10-year Greek government bond spreads to Germany fell from 262 basis points at the beginning of 1999 to 65 basis points at the end of 2000.

Meanwhile, the increase in spreads in the second half of 2007 and 2008 corresponds to the first phase of Euro area spread widening, on the back of the global liquidity crunch that started in August 2007 and the fully fledged global financial crisis that culminated with the failure of Lehman Brothers in September 2008. This period was covered in earlier parts of this thesis: as explained in sections 1.3.2 and 4.4.1 and also highlighted by quantitative

studies described in section 2.4.2<sup>137</sup>, this initial phase of spread widening was mostly related to a sharp increase in global risk aversion driven by the global banking crisis.

Focussing on the years of EMU memberships up to the end of 2007, we can note first of all that Greek bond spreads remained at the top end of the intra-EMU spectrum during the period, although they fell to very low levels in absolute terms. Albeit within the described context of a major underestimation of Greece's growing macroeconomic imbalances<sup>138</sup>, the relative positioning at the top end of Euro area spreads is broadly consistent with Greece's higher public debt and deficit levels, and therefore with the findings of the existing quantitative analyses. Indeed, figure 5.4-2 shows negative correlation between Euro area bond spreads and the health of sovereign members' budget balances in 2001-2007.

**Figure 5.4-2 Government bond spreads and public budget balances**



Vertical axis: 10-year government bond spreads to Germany, average 2001-2007. Source: Eurostat

Horizontal axis: public budget balance as % of GDP, average 2001-2007. Source: Eurostat

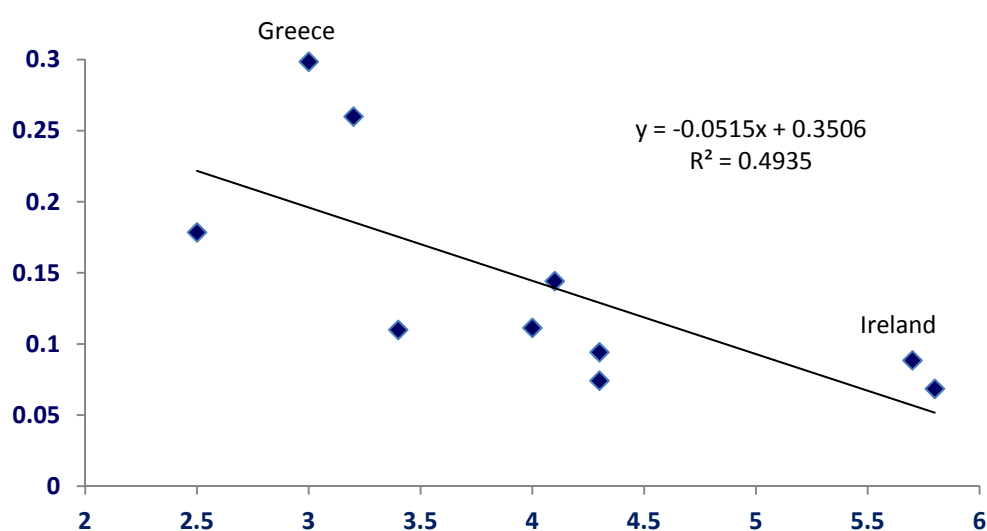
Meanwhile, figure 5.4.3 reveals a similar degree of negative correlation between bond spreads and the number of political checks and balances, in the direction predicted by the "credibility" literature. For Greece, the low number of political checks and balances by itself

<sup>137</sup> This is also shown graphically in charts 5.1-1 and 6.1-1.

<sup>138</sup> As shown with the S-score in section 4.4.3 and further explained in earlier parts of this Chapter.

would appear to imply a level of bond spreads among the highest of the Euro area spectrum. This both suggests that we cannot exclude *ex ante* a role for the political economy backdrop and highlights the inherent difficulty in distinguishing between the direct impact of political factors and their implicit impact through observable policy outcomes (such as the public budget deficit and structural reforms). This difficulty is exacerbated in a context of low spreads and low volatility.

**Figure 5.4-3 Government bond spreads and political checks and balances**



Vertical axis: 10-year government bond spreads to Germany, average 2001-2007. Source: Eurostat

Horizontal axis: Wold Bank DPI CHECK score, average 2001-2007. Source: World Bank DPI

Against this broader backdrop, we can divide the 2001-2007 period in two sub-periods and consider the motivations for spread moves in each of those two phases in more detail. The first sub-period, between early 2001 and the end of 2003, is a phase of further downtrend in Greek bond spreads, in line with developments in the rest of the region. The second sub-period, between 2004 and 2007, is a phase of stability or moderate uptrend in Greek spreads, with a modest deterioration in Greek bonds performance relative to the rest of the region.

Focussing on the 2001-2003 period, Greek spreads entered another phase of mild decline after EMU accession, consistent with a further overall decline in Euro area bond yield dispersion. By July 2003, 10-year Greek bond spreads to Germany had declined to just 15

basis points. On a few occasions, 10-year Greek bond yields even fell marginally below Italy's, the second highest yielder in the regional bond market at the time.

The improvement in Greek bond spreads corresponds to macroeconomic developments on both sides of the bond spreads equation. Figure 5.4-4 summarises the main macroeconomic indicators for both Greece and Germany: it separates between the 2001-2003 and the 2004-2007 periods. For Greece, it shows both initially reported and subsequently revised budget deficit data<sup>139</sup>. On the one hand, Greece's economy appeared to be performing well, with robust GDP growth helping to reduce the public budget deficit. Greece grew at an average 4.5% pace in 2001-2003, while the budget deficit was initially reported at a modest 1.5% of GDP on average<sup>140</sup>. On the other hand, Germany faced a period of very weak economic growth, as the country suffered a recession following the dot-com bust and progressed with domestic corporate sector adjustment. The budget deficit widened as a result: the working of automatic stabilisers and some fiscal easing led to the public budget deficit reaching 4.2% by 2003.

**Figure 5.4-4 Greece and Germany macro-data in 2001-2007**

Source: Eurostat, data as % of GDP, unless otherwise indicated

	<u>Greece</u>		<u>Germany</u>	
	2001-2003	2004-2007	2001-2003	2004-2007
<b>Public Budget Balance (current data)</b>	-5	-6.2	-3.7	-2.1
<b>Public Budget Balance (before revisions*)</b>	-1.5	-4.8	n.a.	n.a
<b>Public Budget Debt</b>	100.9	103.7	61.4	67.1
<b>Consumer price inflation (% ch y/y)</b>	3.7	3.2	1.4	2
<b>Current Account Balance</b>	-6.7	-9.9	1.3	5.9
<b>Real GDP growth (% ch y/y)</b>	4.5	3.9	0.4	2.2
<b>Private Sector Debt (ex financials)</b>	68.4	93.6	134.9	126.6

\*Data as reported in April 2004 and April 2009 respectively, prior to subsequent major revision rounds

<sup>139</sup> We'll discuss the importance of these revisions later on in this section.

<sup>140</sup> Subsequent large revisions in the budget deficit figures changed somewhat this apparently rosy picture.

The downtrend in Greek spreads failed to make any significant progress after mid-2003; 2004 saw some up-and-downs, while a slight uptrend prevailed in 2005 and 2006. 10-year government bond spreads to Germany moved up from 13 basis points in January 2005 to 35 basis points in June 2006. A period of consolidation around those levels followed, until the start of the global financial crisis.

The 2005-2006 spread increase coincides with some reversal in the relative economic performance of Greece and Germany. The German economy recovered and the budget deficit declined. Meanwhile, Greek GDP growth lost some steam as the public infrastructure effort ahead of the 2004 summer Olympics in Athens came to an end. That said, we can identify three events pertaining to the domestic and European political economy sphere that appear to have contributed to push up modestly the risk premium on Greek government bonds.

The first is related to the main domestic political transition in the period under consideration, as New Democratia took over the country leadership after ten years of PASOK government. After the electoral victory in March 2004, ND launched a review of public accounts to unearth previous government's failings. As a result of the investigation, in November 2004, Eurostat published a review showing serious under-reporting of the Greek budget gaps going back to 1997 (Eurostat, 2004). This included the data used by EU authorities to assess EMU qualification and revealed that Greece had never properly qualified for EMU membership nor complied with the Stability and Growth Pact 3% deficit limit. This episode is remarkably similar to that identified as a catalyst of the Greek sovereign debt crisis in late 2009, when PASOK returned to power and highlighted similar failures in the ND administration. As seen in section 5.3.2, situations of this type can be related to a low level of domestic checks and balances, and the strongly adversarial tone to the political competition. While the market reaction was minor compared to developments in 2009-2010, the credibility loss of the Greek sovereign was likely a factor in the 2004 turning point in Greek spreads.

On the European political economy scene, there was a progressive loss of credibility of the Stability and Growth Pact, which culminated into the March 2005 reform. The Stability and Growth Pact came under strong criticism early on in the EMU experience, during the early

2000s economic slowdown: European Commission President Prodi called it “stupid” as early as 2002. However, its procedures continued to be applied (in relation to the smaller countries) until the end of 2003, when a suspension was decided to the benefit of Germany and France<sup>141</sup>. Finally, the March 2005 reform allowed for temporary breaches of the 3% limit under certain circumstances and reinforced the medium term orientation of the rules.

In addition, the French and Dutch “no” to the ratification of the European Constitution in the May 2005 referenda revealed the uneasiness of those countries’ citizens with further European integration. It was around that time that an Italian cabinet minister attracted considerable press attention for proposing a return to the old “lira”.

The considerable credibility loss of main area-wide fiscal discipline mechanism and evidence of dissatisfaction with the European project trajectory from the population of two founding members thus appear to be an additional reason contributing to the upturn in Greek spreads. Indeed, Greece was one of the countries that benefitted the most from the credibility gains derived from strong EMU institutions. JPMorgan wrote in June 2005: “The growing dissatisfaction of voters with incumbent governments has ignited not only a debate on EU issues, but also...on national issues...National politics are set to remain firmly on investor’s radar screens in the coming months” (JPMorgan, 2005). Still, the spread moves in the period look extremely muted compared to the large market fluctuations that followed revisions in the perceived strength and durability of the Euro area and its institutions during the sovereign debt crisis.

Overall, our analysis of the Greek experience argues against a total indifference of bond markets toward political economy conditions, even before the sovereign debt crisis. However, the related spread moves were very small before 2008, with limited consequences for either Greece’s financing costs or the Euro area as a whole. Attention to domestic and international political fundamentals was hugely amplified during the sovereign debt crisis. The very different market reaction to the Greek budget deficit revisions in 2004 and 2009 is a good example of this change. This evidence indicates that the level of importance of political considerations for government bond markets evolves

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<sup>141</sup> Both countries violated the 3% deficit limit for a number of years and should have faced the excessive deficit procedure.

over time, depending on the particular backdrop conditions. This is consistent with our theoretical expectation that the depth and breadth of investor analysis of sovereign borrowers is not pre-defined on the basis of immutable classifications.

Joining EMU allowed the Greek sovereign to pay only a very small premium compared to Germany when borrowing in financial markets for a number of years. Bond markets appeared to underestimate the need to reassess credit risk differentials – and therefore intensify their analysis of country fundamentals – once the country entered the monetary union and exchange risk differentials disappeared. However, the sovereign debt crisis proved this to be only a temporary phenomenon, with the delayed reaction possibly exacerbated by the consequences of the complacency of earlier years.

Section 6.4 will provide further observations and conclusive thoughts on these issues with the benefit of the additional insights from the analysis of the Irish experience.

## **5.5 CONCLUSION**

The analysis of the Greek sovereign debt crisis in this chapter brings a number of initial results, while still leaving uncertainties that will require additional verification in the analysis of the Irish crisis.

The Greek episode provides evidence of financial markets' evolving valuation models and their failure to efficiently function as a disciplining device on government policy. Greece's credit risk premium was very low between 2001 and mid-2009, as bond markets appeared to overlook progressive deterioration in fiscal and macroeconomic fundamentals over a number of years. Then, in late 2009, the combination of a credibility reassessment - (following the revelation of the Greek government having lied on past public finances reporting), rating downgrades, and the "anchoring" effect from the Dubai World credit acted as a "wake-up" call. Concerns about Greece's creditworthiness emerged and bond investors stepped up efforts to differentiate among sovereign borrowers within the EMU. In



this context, investors broadened their analysis to a variety of domestic and international variables including domestic and international political economy factors<sup>142</sup>.

The bond spreads mapping in Section 5.2 confirms that the Greek sovereign debt crisis (as sovereign debt crisis in general) was driven and influenced by a complex set of variables, often interacting with one another. As a result, distinguishing exactly the impact of financial and economic fundamentals from the role of domestic and international political economy factors is very difficult, as is the precise quantification of the impact of different political factors. That said, the analysis of the Greek episode shows that the features of the domestic socio-political system and the country's international political economy position contribute to explaining the severity of the crisis. On balance, the reaction of bond markets to messages that implied an increased or diminished likelihood of external bail-out appeared to be at least as important as the effect of statements of action by the Greek sovereign itself.

Regarding the domestic political backdrop, the strongest result from the Greek episode concerns the role that social contestation had in undermining sovereign credibility during the debt crisis. Greece has a strongly polarized ideological system and a history of intense political and social contestation of government policy. Meanwhile, the high concentration of formal political power does not allow for conflicting views to find representation through official channels. This emerged vividly during the sovereign debt crisis and our bond market mapping exercise clearly identified popular protests as an important factor in reducing the effectiveness of the government's policy announcements.

The role of the preferences and behaviour of external de-facto veto players in influencing sovereign risk premia also receives strong evidence. Germany occupied the key external veto point in the negotiations concerning a possible rescue package, and its position was complicated by a long-standing ideological aversion to an intra-EMU bail-out, as well as increasing scepticism about the honesty of Greece's commitments. Accordingly, the mapping exercise in Section 5.2 reveals an increased sensitivity of bond spreads to German preferences and political dynamics as the crisis intensified and an external bail-out looked

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<sup>142</sup> As well as others, such as the sovereign's financing schedule and the situation in the banking sector.

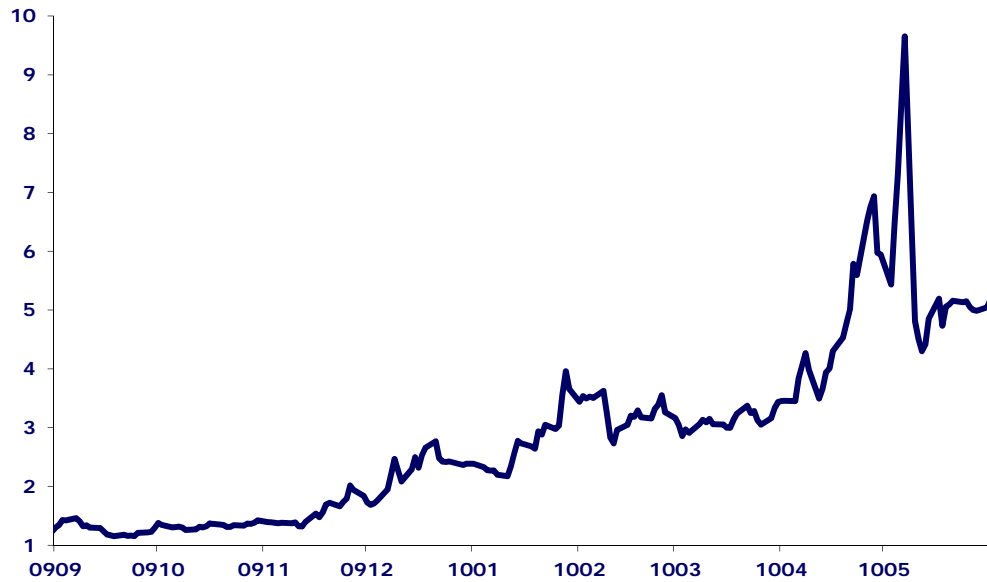
increasingly like the only way to stem the crisis. Meanwhile, Greece's low level of overall proximity with the rest of the EMU and the global economy appeared to act as an obstacle to the credibility of Greece's commitments to fiscal consolidation on EMU membership.

The analysis of the Irish sovereign debt crisis in Chapter 6 will help to refine the findings of the Greek event study in three respects: first, to verify the role played by domestic and external veto players in a different context; second to provide a comparative perspective on the role of veto players, socio-political contestation and the degree of creditor/debtor international proximity; and third to better calibrate the relative importance of the various political economy factors identified as relevant.

## 5.6 MARKET DATA<sup>143</sup>

### Greece 10-year Government Bond Spread to Germany

% per annum, daily data



### Greece 10-year Government Bond Yield

% per annum, daily data



<sup>143</sup>Source: Bloomberg

### Greece 2-year Government Bond Spread to Germany

% per annum, daily data



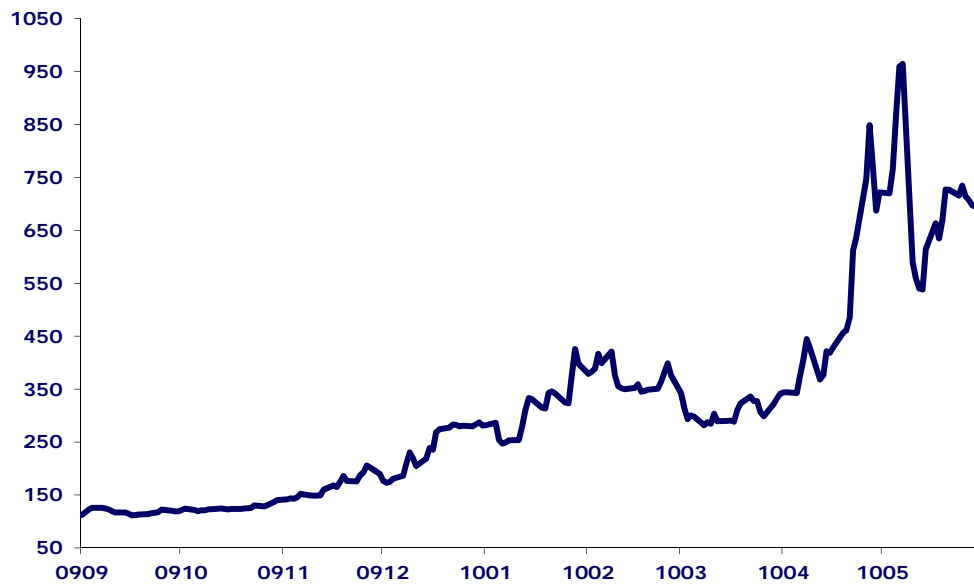
### Greece 2-year Government Bond Yield

% per annum, daily data



### Greece 5-yr CDS

basis points, daily data



### Euro/Dollar Exchange Rate

daily data



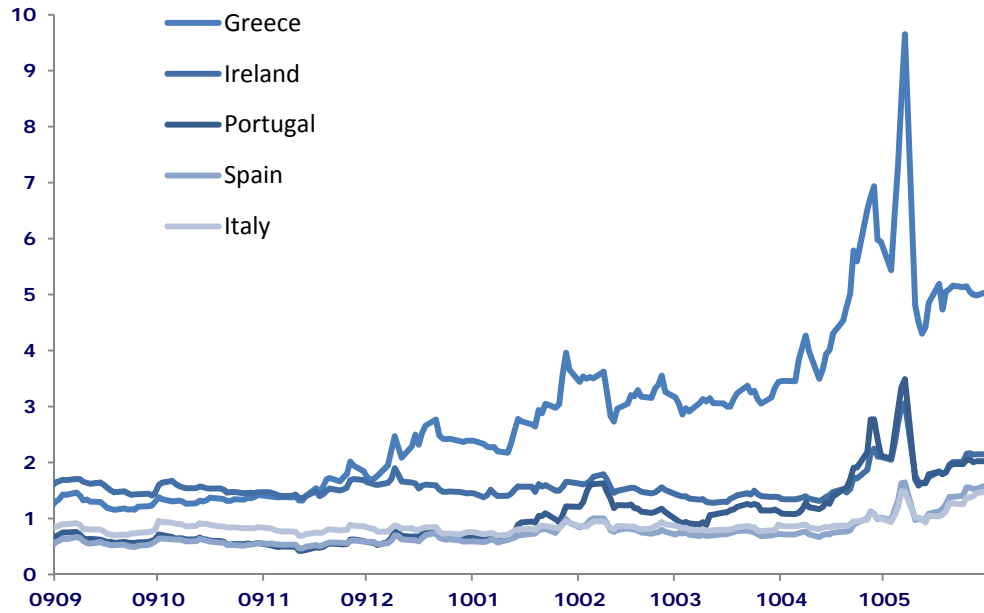
### Euro: Trade-weighted Exchange Rate

ECB index, daily data



### 10-year Government Bond Spread to Germany

% per annum, daily data



### Euro- Stoxx 50 Equity Index

ECB index, daily data



### Athens Stock Exchange Equity Index

ECB index, daily data



### Athens Stock Exchange Banks Equity Index

ECB index, daily data





## Chapter 6

### *The Irish Sovereign Debt Crisis*

#### **6.1 INTRODUCTION**

In this chapter, we cover the second event study of our empirical investigation, the sovereign debt crisis in Ireland. As with the Greek event study, the core of our analysis is concentrated on the crucial period of the crisis, when market attitudes towards Irish sovereign debt deteriorated dramatically, culminating in an external support package. We identify this crucial period as that running from mid-August to early December 2010.

From August/September 2010, financial markets' concerns about the creditworthiness of the Irish sovereign increased significantly, due to large contingent liabilities from bank bail-outs and guarantees, as well as the direct impact on public finances of the real-estate collapse and deep economic recession. Market pressures intensified in late October; by mid-November, Ireland was requesting financial aid from the newly created European Financial Stability Facility as well as from the IMF. While Greece had received bilateral help from EMU countries, Ireland was the first country to receive multilateral assistance from EMU partners through a joint facility.

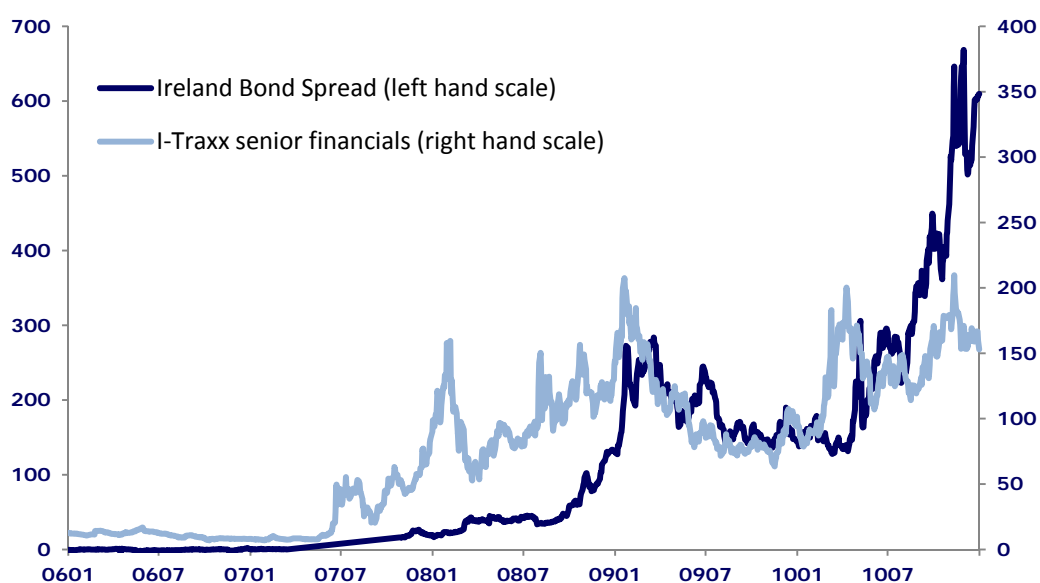
In the identified period, financial market attitudes towards the Irish sovereign deteriorated dramatically, although the move was the culmination of a real-estate, banking and economic crisis that by 2010 had been three years in the making. Some re-pricing of sovereign bond yields had already occurred since the financial crisis hit: Ireland entered the crisis with one of the lowest risk premia in the EMU; by early 2009, they were the highest in the region. However, up to then, the move had remained well contained and had little consequence in terms of Irish sovereign capacity to access external finance. Also, part of the move was reabsorbed later in 2009, coinciding with the decline in global risk aversion.

However, in the space of a few weeks during the second half of 2010, the fundamental deterioration and the increasing burden of large actual and contingent liabilities related to bank rescues came to a head for the sovereign. In just a few weeks, markets not only moved Irish sovereign debt from the “good credit” to the “bad credit” category, but went as far as to place it on a par with some of the worst credits in the world, leaving the entity unable to raise finance in the private market-place.

Figure 6.1-1 aligns the Irish ten-year bond spread to Germany with the five-year I-Traxx Senior Financials index, a measure of stress in the European financial sector. The relationship shows both the hit that Irish bond yields suffered as a consequence of the global financial crisis and how a more specific Irish sovereign dynamic developed in the second half of 2010.

**Figure 6.1-1 Ireland Bond Spreads and I-Traxx Senior Financials index**

Bond spreads to German and 5-year Itraxx Senior Financials index, basis points, daily data



Source: Bloomberg

In the context of the Euro area crisis, the Irish episode assumes particular importance in two respects. First, it is a textbook example of how a banking crisis can affect a sovereign as a consequence of credit risk transfer from the private to the public sector, reinforcing the

case for looking beyond a few public finance shortcuts when assessing the solidity of a country's public finances. Banking sector issues were central to the emergence and evolution of the Irish sovereign debt crisis, interacting with and sometimes obscuring the role of other factors. Second, it can be considered as the first step in the contagion of the Euro area crisis from the original Greek source, as well as the first test of the use of the EFSF, the regional rescue fund set up after the Greek bail-out.

Not surprisingly in this light, the existing literature on the Irish crisis is mostly focused on the banking crisis and the "credit risk" transfer hypothesis as an explanation for the sovereign turmoil. The role of the banking crisis and the risk transfer from the banking sector to the sovereign is a recurring theme in the large-n analysis of Euro area bond spreads reviewed in Chapter 2 (see, for example, Attinasi et al., 2009; Sgherri and Zoli, 2009). Single-country studies of the Irish crisis also tend to look at the banking and sovereign debt crisis as two elements of the same financial crisis. They identify the banking crisis, and the related boom-bust cycle in housing and private sector borrowing, as key drivers of the fiscal stresses through two main channels: the sovereign's assumption of actual and contingent liabilities from the banking sector with the provision of extensive guarantees and recapitalisation funds, and the dampening effects of the crisis on activity, employment and fiscal revenues (Kelly, 2010; Lane, 2011)<sup>144</sup>.

In contrast, here we focus on seeking to understand the influence that political economy factors had on the severity of the sovereign debt crisis. In doing so, we do not contest the importance of the credit risk transfer from the banking sector to the public sector, and the broader impact of the boom-bust cycle on private credit, housing and the real economy as crucial sources of the crisis. We have the specific and complementary aim of identifying how the domestic and international political economy factors identified in the theoretical framework impacted the evolution of bond spreads during the sovereign debt crisis. Single-country studies, such as those mentioned above, generally highlight the role of government policy errors in amplifying the crisis. Cooper's journalistic account (2011) of Ireland's financial disaster highlights the failures of the financial and political system that contributed

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<sup>144</sup> As with the Greek sovereign debt crisis, the academic analysis of the Irish sovereign debt crisis is at the early stages, with the number and depth of contributions likely to increase in the coming years.

to the crisis and its magnitude. Meanwhile, our analysis aims to reach a judgement on whether Ireland's veto-player constellation and its positioning in the international economy enhanced or reduced the country's financial market credibility during the sovereign debt crisis, given all the other factors in play. Importantly, we will base our judgement on an analytical framework that can be applied to other countries; we will therefore be able to judge the role of the factors mentioned not only in absolute terms, but in comparison with the Greek episode examined in Chapter 5.

Indeed, the features of the domestic veto-player constellation identified in Chapter 4 suggest that these structural elements should overall have been more favourable for sovereign credibility during the crisis than was the case in Greece. Ireland has a more developed system of institutional checks and balances in the formal political system, combined with a much lower level of social polarisation on the left-right continuum, and a history of very little social contestation. Similarly, the external context appears *a priori* more favourable, as Ireland ranks as one of the most open economies in the world and had substantial trade and financial links with Germany, the UK and the US by the time the crisis started.

The methodological features of this event study mirror those adopted in the Greek event study<sup>145</sup>, enriched by comparative considerations highlighting differences and similarities between the two episodes. The structure of Chapter 6 follows the model of Chapter 5. Section 6.2 is dedicated to mapping Irish bond spreads with daily and intra-daily news in order to identify the specific political economy drivers of the sovereign crisis. Section 6.3 is dedicated to the analysis of events and causal mechanisms in the light of the theoretical framework developed in Chapter 3. Section 6.4 completes the analysis with a look at the role of politics before 2008.

Section 6.5 concludes by summarising key findings from the Irish episode and the comparison with the Greek episode. Finally, charts showing the evolution of the financial

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<sup>145</sup>The general structure and aims of the case studies are described in Chapter 4. The introductory section of Chapter 5 also clarifies some specificities of the approach to the empirical analysis, and related caveats.

market variables mentioned throughout the narrative are provided at the end of the chapter (Market Data – Section 6.6 ).

## **6.2 MAPPING THE IRISH SOVEREIGN DEBT CRISIS**

### **6.2.1 From banking to sovereign debt crisis**

Irish sovereign bond yield moved above the ranges seen since 2009 for the first time in early September 2010. The move followed a deterioration in news flows with regard to the likely cost of bank recapitalisation and its impact on Irish public finances.

Broadly, the European banking sector came under intense scrutiny in July 2010, in preparation for and as a response to the Committee on European Banking Supervision (CEBS)<sup>146</sup> bank stress tests (Bloomberg News, July 23<sup>rd</sup>, 2010). The publication of bank stress test data was aimed at reassuring markets of the solidity of the banking sector by increasing transparency about their situation and their sensitivity to alternative scenarios for the economy and government debt (Bloomberg News, July 23<sup>rd</sup>, 2010). However, the methodology and assumptions of the stress tests were criticised by a number of commentators, mostly as being insufficiently severe to provide meaningful reassurance (Bloomberg News, July 23<sup>rd</sup>, 2010).

Against this area-wide backdrop, between late July and August 2010 a number of Irish-specific bank news items reported increasing bank recapitalisation needs and therefore potential additional costs for the sovereign. In fact, bank stocks prices resumed falling in early August, from already depressed levels.

This Irish bank news included:

- 1) Irish bank results for the first half of the year showed larger than expected losses, including sharp increases in non-performing loans. Allied Irish Banks reported a loss of 1.7 billion euros and the press started to indicate that the state would soon take control of the bank (Bloomberg News, August 5<sup>th</sup>, 2010); the Bank of Ireland

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<sup>146</sup> The CEBS has since been replaced by the European Banking Authority (EBA).

reported almost one billion euros of losses on the commercial loans portfolio transferred to the National Asset Management Agency (NAMA) and a 66% fall in overall pre-tax profits (Bloomberg News, August 11<sup>th</sup>, 2010).

- 2) NAMA<sup>147</sup> operations were also reported to be less profitable than hoped and increasingly large discounts were applied to asset transfers from ailing banks, leaving larger capital holes in bank balance sheets, which would eventually need to be plugged with public money (Bloomberg News, July 17<sup>th</sup>, 25<sup>th</sup>, 2010).
- 3) As a result of higher than expected losses, estimates of the recapitalisation needs of Irish banks were ratcheted up: in particular, the Irish state obtained EU approval for a much higher than previously expected 24.3 billion euro capital injection into the Anglo-Irish Bank (Bloomberg News, August 10<sup>th</sup>, 2010), taking the total estimated costs of bailing out the bank to 15% of Irish GDP.
- 4) The end of the Credit Institutions Financial Support Scheme<sup>148</sup> at the end of September 2010 started to come into focus: the end of the state guarantee was due to perversely coincide with a significant 25 billion euros in bank debt redemptions due in September, which would create a glut in Irish banks' financing needs. Irish policymakers accordingly started to consider the possible extension of the guarantee scheme (Bloomberg News, August 19<sup>th</sup>, 2010).

The first significant move in Irish yields as a result of the highlighted news occurred on 9<sup>th</sup>, 10<sup>th</sup> and 11<sup>th</sup> August, following the surge in recapitalisation cost estimates: ten-year Ireland/Germany bond spreads increased by 50 basis points to 290, although they did not break above the range seen since the beginning of the global financial crisis. The timing suggests that it was the increasing estimates of the Anglo-Irish bail-out costs in particular that hit the markets.

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<sup>147</sup> NAMA is a special purpose vehicle created in early 2009 to acquire non-performing development loans from Irish banks. More details about its role are given in Section 6.3.1.

<sup>148</sup> One of the two bank guarantee programmes put in place following the 2008 financial crisis. These are described further in Section 6.3.1.

Yields stabilised for a while after this, and the Republic of Ireland issued new bonds at a slightly reduced price in mid-August (Bloomberg News, August 17<sup>th</sup>, 2010). To be sure, in the initial stages, the move in Irish yields led, but was not entirely disconnected from, the move in other fragile EMU peripheral countries, notably Greece and Portugal. The move in spreads was also supported by the broader global markets “risk-off” move – which included some decline in German bond yields –as a consequence of mounting fears of a global growth slowdown (Bloomberg News, August 16<sup>th</sup>, 2010).

Then, in late August, Irish bond spreads started a more decisive uptrend, surpassing earlier peaks and progressively de-correlating from the moves in government spreads elsewhere in the EMU (except in Portugal). This happened after Standard and Poor’s downgraded the debt of the Republic of Ireland from a credit rating of AA to AA- with negative outlook (Bloomberg News, August 24<sup>th</sup>, 2010). The move was motivated by a revision in the total projected cost of bank bail-outs, to a very high 90 billion euros (Bloomberg News, August 24<sup>th</sup>, 2010). Including the recapitalisation costs which needed to be accounted for in the 2010 debt and deficit figures, S&P forecast that Irish government debt would reach 128.6% in 2010, in contrast to an earlier government estimate of 77.9% (Wall, 2010). More than the specific rating action, which appeared in any case to lag behind market pricing, the accompanying estimates of bank recapitalisation costs and their impact on public finances received considerable attention and were criticised by Irish leaders as exaggerated (Bloomberg News, August 31<sup>st</sup>, 2010).

Following the S&P downgrade, on August 25<sup>th</sup>, ten-year spreads widened by 25 basis points to 344, with yields rising by 22 basis points to 5.6%. With this move, the ten-year Irish-German spread broke above the range maintained since the beginning of the financial crisis. Selling continued over the next few days.

New figures on public finances showed a decline in the deficit in the first eight months of the year (Bloomberg News, September 2<sup>nd</sup>, 2010), confirming the government’s adherence to the adjustment plans, but this did not appear to have more than a very brief impact on markets.

The step-up in bond yields increased the sense of urgency of Irish and European policymakers concerning the management of the Anglo-Irish problem and the response to the broader bank refinancing risk:

1. The ECB decided to extend the full allotment procedure in its open market operations at least until the end of the year, ensuring ongoing unlimited liquidity support for ailing EMU banks (Bloomberg News, September 2<sup>nd</sup>, 2010). Part of the expiring state bank guarantees was extended, following EU approval (Bloomberg News, September 7<sup>th</sup>, 9<sup>th</sup>, 2010).
2. The Irish government also communicated amply on their intention of speeding up the resolution of the Anglo-Irish problem, intensifying dialogue with the European Commission in order to obtain the necessary approvals (Bloomberg News, September 6<sup>th</sup>, 2010) and announcing that Anglo-Irish would be split into two entities and part of its operations wound down (Bloomberg News, September 9<sup>th</sup> 2010).
3. Finance Minister Lenihan also announced that the 2011 budget plan, with appropriate consolidation initiatives, would be published on December 7<sup>th</sup> (Bloomberg News, September 9<sup>th</sup>, 2010)

However, for the first time, Finance Minister Lenihan was also obliged to deny that access to the EU stabilisation fund had been discussed during EU talks (Bloomberg News, September 7<sup>th</sup>, 2010), which was followed by denials by the IMF (Bloomberg News, September 17<sup>th</sup>, 2010) and the European Commission (Bloomberg News, September 21<sup>st</sup>, 2010) that Ireland was expected to need or had requested EU help.

In the first part of September, ten-year yields continued on a relatively gradual but clear uptrend, reaching 6% on September 8<sup>th</sup>; by then the spread to Germany was 371 basis points. From there, the mix of supportive policymaker statements provided some temporary respite, with spreads declining to 340 basis points by September 10<sup>th</sup>. But the rise resumed thereafter: on September 17<sup>th</sup> alone spreads rose by 30 basis points; on September 20<sup>th</sup> they reached 400 basis points. However, Ireland still managed to sell 1.5 billion euros in bonds on primary markets (Bloomberg News, September 21<sup>st</sup>, 2010) and



European authorities continued to praise the country's efforts with regard to its public finances (Bloomberg News, September 21<sup>st</sup>, 2010). The 400 basis points spread left Ireland in a position similar to that of Greece in April of the same year, when Greek government bond prices entered an unstoppable spiral.

Meanwhile, the EFSF was established and the approval process completed; the rescue fund was assigned the top credit rating by the three main agencies (Bloomberg News, September 20<sup>th</sup>, 2010). Almost immediately, reports started to circulate that the ECB was considering using the EFSF to support Ireland (Bloomberg News, September 27<sup>th</sup>, 2010). A weak statistical release of second-quarter GDP showed contraction added to the gloom (Bloomberg News, September 23<sup>rd</sup>, 2010); the ongoing economic weakness was a major concern for Ireland, given the deepening vicious cycle of fiscal tightening and falling real economic activity.

Finally, the domestic political picture deteriorated, as the Irish started to question their government's decision to provide blanket bank guarantees and to rescue banks at huge cost to the tax payer. Polls showed that the Fianna Fail party was losing support, receiving only 22% of voter support, against 35% for Labour and 30% for Fine Gael (Bloomberg News, September 24<sup>th</sup>, 2010) and the majority coalition lost one independent supporter, reducing its already slim majority (Bloomberg News, September 24<sup>th</sup>, 2010). The opposition called for new elections (Bloomberg News, September 27<sup>th</sup>, 2010). Problems within Fianna Fail started to emerge, including concerns about the health of Finance Minister Lenihan (Bloomberg News, September 6<sup>th</sup>, 2010) and speculation emerged that the Irish Taoiseach (prime minister), Brian Cowen, might be replaced (Bloomberg News, September 20<sup>th</sup>, 2010).

Against that backdrop, the climb in spreads and yields continued up to September 28<sup>th</sup>, as markets reflected worries about the possibility that an Anglo-Irish default would hit both senior and subordinated bondholders (Bloomberg News, September 23<sup>rd</sup>, 2010) and increasing concern that the Irish sovereign would require a bail-out. On September 28<sup>th</sup>, spreads reached 450 basis point and yields reached 6.7%. By that time, the spreads widening was concentrated in Ireland and Portugal, while spreads were falling in the other peripheral economies. In three-year bonds, the yield moved up to 5%, a rate similar to the cost of an EFSF loan.

The pressure on the Irish government was mounting, and the response came on September 30<sup>th</sup>, with statements by the financial regulator and the finance ministry aimed at clarifying the cost of the bank bail-outs and their impact on public finances. The Anglo-Irish rescue was now estimated to cost 23.3 billion euros (18.4% of GDP), with a worst-case scenario of 34.3 billion. Including the recapitalisation of Allied Irish Banks and the Irish Nationwide Building Society (INBS), the bill would reach about 50 billion euros (Bloomberg News, September 30<sup>th</sup>, 2010).

The costs of bank capital injections were crystallised in much higher than previously expected public debt projections, and in a much higher 2010 deficit figure. The 32% of GDP headline deficit figure for 2010 (Bloomberg News, September 30<sup>th</sup>, 2010) was jaw-dropping, although more than half of this was a one-off charge reflecting recapitalisation outlays that would be spread over ten years<sup>149</sup>. Accordingly, gross debt was set to reach 98.5% in 2010. Net debt, the Department of Finance also clarified, remained a more manageable 70.4% of GDP, due to Treasury cash reserves which ensured that the sovereign was fully funded until mid-2011, and to assets held in the National Pension Reserve Fund (Ireland Department of Finance, 2010a).

This increase in transparency was aimed at dampening speculation and calming concerns and was accompanied by proactive government statements:

1. First, the Irish government pledged that senior bondholders, in contrast to subordinated bondholders, would not be required to share in any losses (Bloomberg News, September 30<sup>th</sup>, 2010). It also announced that the state would take a majority stake in Allied Irish Banks (Bloomberg News, September 30<sup>th</sup>, 2010).
2. Second, it reiterated its commitment to bringing the budget deficit down to 3% by 2014, and promised a new four-year fiscal plan by early November (Bloomberg News, September 30<sup>th</sup>, 2010).

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<sup>149</sup> The 20%-point increase in the 2010 deficit and debt estimates was almost entirely due to additional bank recapitalisation costs, mostly in the form of promissory notes. In accordance with Eurostat regulations, these costs were added at once to the headline debt and deficit figures, even if related outlays were due to take place over the following ten years. Meanwhile, the sovereign still held 20 billion euros in cash reserves, as well as assets in the National Pension Reserve Funds (partly deployed for bank recapitalisation) worth 24 billion euros (Ireland Department of Finance, 2010a).

3. Third, it cancelled the remaining debt auctions for 2010 (Bloomberg News, September 30<sup>th</sup>, 2010).

The Irish Government acted with the full support of European authorities in this transparency boost; the ECB contributed by stepping up SMP bond purchases to 1 billion euros in the week ending October 1<sup>st</sup>, after more than two months of modest purchases (between 9 and 338 million since the week ending July 12<sup>th</sup>).

The policy reaction, as well as the lack of an accident in the September bank refinancing hump, brought about some relief in risk premia and a longer pause in Irish bond markets: spreads fell back to 400 basis points by October 1st, and hovered within a narrow range for about three weeks.

### **6.2.2 The Deauville agreement and intensification of the crisis**

In the first half of October, Irish and European spread markets appeared to have calmed down significantly: after the August and September deluge of bad news, the tone of Irish news was more mixed, the news flow related to the EMU crisis was lighter, and global risk sentiment improved following quantitative easing in the US and some improvement in global economic news.

On the market-friendly side, incoming Irish budget execution data showed that the Irish government was sticking to the 2010 consolidation plans (Bloomberg News, October 4<sup>th</sup>, 2010), cross-party rhetoric pointed to a collaborative attitude towards the drafting of future budget plans (Bloomberg News, October 5<sup>th</sup>, 20<sup>th</sup>, 2010), and the government reinforced its message that senior bondholders would not face 'haircuts' (Bloomberg News, October 7<sup>th</sup>, 2010).

The good news was tempered, however, by evidence that the September bank refinancing hump had been overcome mostly by higher borrowing at the central bank: bank borrowing at the Eurosystem open-market operations had increased to 119.1 billion euros by late September (Bloomberg News, October 8<sup>th</sup>, 2010). Moreover, the Central Bank of Ireland

revealed a significant increase in ELA (Emergency Lending Assistance)<sup>150</sup> operations, a form of lending that left the Central Bank holding collateral of dubious value. This implied a considerable increase in Irish banks' dependence on central bank liquidity. At the same time, it also increased the risk burden on the ECB. Some ECB Governing Council members were thus increasingly reluctant to let exposure to Irish banks increase further. As a result, a few became impatient to start withdrawing exceptional bank liquidity measures and exit the bond-buying programme (Bloomberg News, October 12<sup>th</sup>, 2010). This created the risk that the Irish bank/sovereign complex would lose critical support too early.

In all, Irish bond yields hovered between 6% and 6.5% for much of the month of October. However, in spite of some policymakers' hopes that the stabilisation signalled the end of the crisis (Bloomberg News, October 19<sup>th</sup>, 2010), this was to prove nothing more than the proverbial "calm before the storm".

Irish bond yields and spreads started to rise again in late October, and the Irish bond sell-off reached its most intense phase in early November. The reacceleration in Irish yields in late October coincided with the definition of a new, EMU-wide "crisis resolution mechanism", along with new fiscal rules.

The key principles of the new framework were agreed by German Chancellor Merkel and French President Sarkozy at a meeting in Deauville on October 18<sup>th</sup> (Bloomberg News, October 18<sup>th</sup>, 2010). These principles were also embedded in the report of the Van Rompuy task force<sup>151</sup> on economic governance published on October 21<sup>st</sup> (Bloomberg News, October 21<sup>st</sup>, 2010) and endorsed by the European Council on October 28-29<sup>th</sup> (Bloomberg News, October 29<sup>th</sup>, 2010; European Council, 2010e).

The Franco-German compromise rested on two pillars:

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<sup>150</sup> More on this in Section 6.3.3

<sup>151</sup> A task force of finance ministers led by Van Rompuy, the president of the European Council. It was established in March 2010 to look at options for improving economic governance in the EMU, including budgetary discipline and the crisis management framework.

- The strengthening of the “budgetary surveillance and economic policy coordination”, with a more biting Stability and Growth Pact. This would increase the automaticity of sanctions for non-compliant countries, although total automaticity was rejected;
- An amendment to the Lisbon Treaty to establish a “robust crisis resolution framework” for crisis management, including “an adequate participation of private creditors”<sup>152</sup>.

The second point was crucial for bond markets. Explicitly introducing the possibility of a restructuring mechanism that would impose losses on private bondholders was akin to reintroducing the possibility of outright default, after the Greek bail-out and the creation of the EFSF had seemed to be moves in the opposite direction. Accordingly, bond markets started to price in a higher probability of bearing losses on peripheral countries’ debt, leading to a broad-based increase in EMU periphery bond spreads. ECB opposition to “burden sharing” was reported immediately (Bloomberg News, October 27<sup>th</sup>, 2010), but was a key element for German policymakers (Bloomberg News, October 28<sup>th</sup>, 2010) and the French accepted it as a counterpart to concessions on maintaining political checks on sanctions in the new budgetary framework (Bloomberg News, October 18<sup>th</sup>, 2010).

The Irish bond market, which had recently attracted the most concerns, reacted particularly violently to this last news. Between October 27<sup>th</sup> and November 11<sup>th</sup>, ten-year Irish bond yields rose without respite almost every day at an average pace of 20 basis points per day: yields crossed the 7% mark on November 1<sup>st</sup>, and reached 8.9% on November 11<sup>th</sup>, not far short of the 9.2% level of Greek yields on April 23<sup>rd</sup>, 2010, the day that Greece formally applied for EU/IMF help. This happened even as the ECB leaned against the wind by boosting Irish bond purchases in the secondary markets (Bloomberg News, October 28<sup>th</sup>, 2010). By then, the liquidity in the secondary market for Irish bonds had also collapsed.

In striking contrast with the Greek situation, the euro/dollar bilateral rate appreciated for much of the duration of the Irish crisis, going from 1.27 at the end of September, to 1.42 on November 4<sup>th</sup>, although with some correction thereafter. Also, the European stock market

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<sup>152</sup> Quotes are from Franco-German Declaration (2010).

remained on an uptrend. The de-correlation between Irish spreads and broader financial market measures such as the currency and the regional stock market suggest that the market did not perceive the crisis as a major potential blow to the region as a whole. Instead, broader global market events, namely the impulse created by the second round of quantitative easing in the US and the improvement in economic data, prevailed as drivers of broader European financial variables.

In early November, the move in Irish yields was further reinforced by domestic factors: additional difficulties in the banking sector (Bloomberg News, November 2<sup>nd</sup>, 2010), an increase in London Clearing House (LCH) margin requirements (Bloomberg News, November 10<sup>th</sup>, 2010), and a further deterioration in the political backdrop.

The tenure of the existing Irish government had appeared fragile for a while, since it relied on a very slim parliamentary majority, and approval ratings for Fianna Fail had already collapsed to a historic low of 18% (Bloomberg News, October 24<sup>th</sup>, 2010). But the situation took a further turn for the worse as an independent MP resigned (Bloomberg News, November 2<sup>nd</sup>, 2010), and the High Court issued a ruling forcing the government to hold the first of four outstanding by-elections on November 25<sup>th</sup> (Bloomberg News, November 3<sup>rd</sup>, 4<sup>th</sup>, 2010). Early elections - in the first half of 2011 rather than at the end of the normal legislative term in May 2012 - looked increasingly likely (Bloomberg News, November 7<sup>th</sup>, 2010). This situation threatened the survival of the government, as well as its capacity to secure parliamentary approval for crucial budget documents (Bloomberg News, November 7<sup>th</sup>, 2010).

Once again, the Irish government attempted to lean against the wind of plummeting bond prices, mainly by maintaining a strong focus on consolidating public finances and on providing timely signals to the market:

- On October 26<sup>th</sup>, the government announced that the fiscal adjustment effort over the following four years would be raised to 15 billion euros (about 10% of GDP), more than double the amount foreseen in the last Stability Programme (Bloomberg News, October 26<sup>th</sup>, 2010), in order to ensure that the 3% deficit target for 2014 would be met.

- On November 4<sup>th</sup>, the Department of Finance provided some additional information on the four-year fiscal plan to be published later in the month. Fiscal tightening would be front-loaded, with 6 billion euros of adjustment pencilled in for 2011, and a programme for structural reform would also be presented (Bloomberg News, November 4<sup>th</sup>, 2010).

Although fully agreed and endorsed by European authorities (Bloomberg News, November 8<sup>th</sup>, 2010) and accompanied by an extension of bank guarantees into 2011 (Bloomberg News, November 10<sup>th</sup>, 2010), these announcements did little to dent market concerns. Instead, speculation on the possibility that Ireland might be about to request external support became increasingly rife, triggering repeated denials by the Irish authorities (Bloomberg News, November 11<sup>th</sup>, 2010), as well as by EU policymakers (Bloomberg News, November 8<sup>th</sup>, 2010) and the IMF (Bloomberg News, November 11<sup>th</sup>, 2010).

### **6.2.3 Towards external support**

The G20 meeting on November 12<sup>th</sup>, where talks were held on the Irish crisis (Bloomberg News, November 12<sup>th</sup>, 2010), marked the end of the most acute phase of the crisis, as private sector loss participation plans were watered down and the door was opened to the possibility of an external support package for Ireland.

On the first and crucial issue, the finance ministers of Germany, France, Italy and Spain released a communiqué (Bloomberg News, November 12<sup>th</sup>, 2010), clarifying that the “potential private sector involvement” would not apply to outstanding debt or be a condition of EFSF activation, that it would probably not imply outright ‘haircuts’, and that the new mechanism would not come into effect before mid-2013 (Communiqué by Finance Ministers of Germany, France, Italy and Spain, 2010).

On the second issue, the press reported that European policymakers, and particularly the ECB, were “urging” Ireland to accept emergency aid (Bloomberg News, November 12<sup>th</sup>, 2010). Irish Prime Minister Cowen admitted for the first time that Ireland was “cooperating with the EU on the debt crisis” (Bloomberg News, November 12<sup>th</sup>, 2010), although Finance Minister Lenihan continued to reiterate that no aid request was being made (Bloomberg

News, November 12<sup>th</sup>, 2010) and that it made no sense for Ireland to make one (Bloomberg News, November 12<sup>th</sup>, 2010).

As a result, market sentiment started to stabilise and Irish bond yields fell by 100 basis points in two days on November 12<sup>th</sup> and 13<sup>th</sup>. However, yields failed to move below 8% and remained elevated in the following few weeks, as clarity on the overall outcome of the Irish situation remained low. It took until November 21<sup>st</sup> for the Irish government to apply for external help, and up to the end of November for the aid plan to be drafted. Throughout this period, markets remained uneasy with Irish economic fundamentals, as well with the interaction between Irish and European political developments.

The period leading to the aid request on November 21<sup>st</sup> was dominated by talks between Irish and European policymakers about the need for Ireland to tap the EFSF, as well as some behind-the-scenes preparations for a possible move in that direction (Bloomberg News, November 15<sup>th</sup>, 16<sup>th</sup>, 2010).

On the one hand, EU officials, French and German politicians and the ECB stepped up the pressure for Ireland to accept external support (Bloomberg News, November 15<sup>th</sup>, 16<sup>th</sup>, 2010). The UK also expressed willingness to provide support (Bloomberg News, November 17<sup>th</sup>, 2010).

On the other hand, while Ireland faced a huge challenge in its ailing banking sector, the Irish state did not face immediate liquidity needs (Bloomberg News, November 16<sup>th</sup>, 2010) and was reluctant to cave in to market and peer pressure for fear of losing hard-won economic sovereignty (Bloomberg News, November 15<sup>th</sup>, 2010). Ireland was particularly keen to defend its 12.5% corporate tax rate, which was being challenged by European peers (Bloomberg News, November 18<sup>th</sup>, 2010)<sup>153</sup>.

At the November 16<sup>th</sup> ECOFIN meeting, progress was made as work started on a bank support programme (Bloomberg News, November 16<sup>th</sup>, 2010), although Ireland continued

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<sup>153</sup> The approach of referring to Bloomberg sources is followed for consistency here. A more in-depth analysis of political motives and rationales will be carried out in Section 6.3.2.



to focus on avoiding a fully-fledged bail-out, and EU officials reached Dublin on the following day (Bloomberg News, November 17<sup>th</sup>, 2010).

The meeting of the ECB Governing Council on November 18<sup>th</sup> triggered a change in the tone of the Irish authorities with regard to a possible rescue package. On that day, Trichet made clear that “unconventional measures are temporary” (Bloomberg News, November 18<sup>th</sup> 2010). Meanwhile, Irish Central Bank Governor Honahan, a member of the ECB Governing Council, was the first Irish policymaker to concede that the country “may tap a substantial EU-IMF loan” (Bloomberg News, November 18<sup>th</sup>, 2010), even as Finance Minister Lenihan continued to focus on aid for banks only.

Talks continued in the following three days; on November 20<sup>th</sup> French President Sarkozy made it clear that “higher taxes” were not a necessary condition for Ireland to tap the EFSF (Bloomberg News, November 20<sup>th</sup>, 2010), removing an important stumbling block. On November 21<sup>st</sup> the aid application was finally put forward (Bloomberg News, November 21<sup>st</sup>, 2010). The details of the package were hammered out in the following few days and announced at the European Council meeting of November 28<sup>th</sup> -29<sup>th</sup> (Bloomberg News, November 29<sup>th</sup>, 2010; European Council, 2010f).

The total rescue package amounted to 85 billion euros, with 17.5 coming from Ireland’s own National Pension Reserve Fund and cash reserves rather than from external sources. External contributors included the EFSF, the ESM and the IMF as well the UK, Sweden and Denmark. Of the total rescue package, 35 billion euros was earmarked for banking system support and the rest would go to finance the Irish state. The average maturity of the loans would be 7.5 years (Bloomberg News, November 28<sup>th</sup>, 2010).

Figure 6.2.3-1 Key features of the Ireland rescue package

Source: European Commission (2011)

	Euro billions
<b>Total amount</b>	85
<b>Contributors:</b>	
EFSM	22.5
IMF	22.5
EFSF	17.7
UK	3.8
Sweden	0.6
Denmark	0.4
Ireland National Pension Fund	17.5
<b>Destinations:</b>	
Irish State	50
Banking system	35

Regarding conditionality, the Irish National Recovery Plan, the four-year budget plan published by the government on November 24<sup>th</sup> (Bloomberg News, November 24<sup>th</sup>, 2010) provided a solid basis for the required definition of targets, reducing a possible source of friction. The European Commission extended the deadline for the achievement of a 3% deficit by one year from 2014 to 2015. A “fundamental downsizing and reorganisation of the banking sector” was the key element of the reform programme.

Figure 6.2.3-2 Ireland fiscal plan, November 2010

Source: European Commission (2011). % of GDP unless otherwise indicated

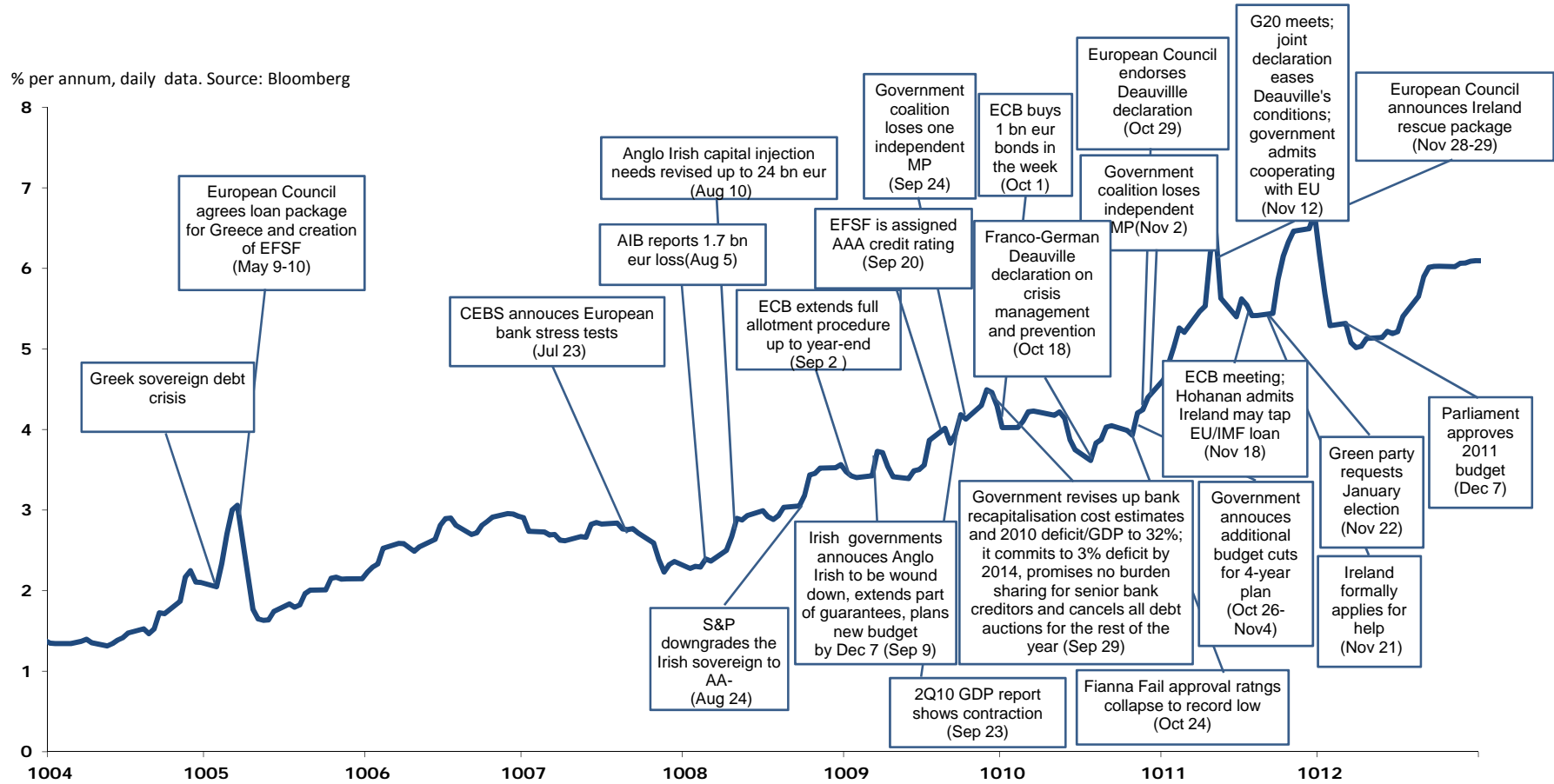
	2009	2010	2011	2012	2013	2014	2015
<b>Budget Balance</b>	-14.4	-32	-10.6	-8.6	-7.5	-5.1	-2.9
<b>Primary Budget Balance</b>	-12.2	-29	-6.8	-4.1	-1.5	1.2	3.2
<b>Debt</b>	66	95	112.4	118.7	120.5	119.1	115.5
<b>Real GDP (%ch y/y)</b>	-7.6	-0.2	0.9	1.9	2.5	3	3.0
<b>HICP Inflation (%ch y/y)</b>	-1.7	-1.5	0.4	0.6	1.6	1.8	1.9

Nonetheless, the aid negotiations and the approval of the necessary budget documents took place against an uncertain domestic political backdrop: Fianna Fail's support was plummeting in the polls (Bloomberg News, December 3<sup>rd</sup>, 2010), the Green Party, the junior coalition member, demanded a general election date in early 2012 (Bloomberg News, November 22<sup>nd</sup>, 2010), and the Donegal by-election led to the loss of one supportive MP (Bloomberg News, November 26<sup>th</sup>, 2010). This contributed to keeping Irish yields elevated even after the aid application.

With the governing coalition looking increasingly fragile, doubt persisted for a while about whether the opposition parties would feel "bound" by the government plans and negotiations, in terms of both budget consolidation and banking sector policy – particularly with regard to senior bank bondholders. As a result, EU officials needed to get the support of opposition politicians as well (Bloomberg News, November 23<sup>rd</sup>, 2010), and the approval of the 2011 budget hung in the balance until the very end due to uncertainty about support from two independent MPs (Bloomberg News, December 5<sup>th</sup> 2010) .

In the second half of November and in December, Irish bond market liquidity was very low, and ECB purchases influenced price fluctuations, making it hard to read strong signals on private sector confidence in day-to-day movements. That said, there was an increase in yields between November 23<sup>rd</sup> and November 30<sup>th</sup>, when they reached 9.4% and the spread reached 670 basis points. This corresponded to a third increase in the LCH margin requirement (Bloomberg News, November 25<sup>th</sup>, 2010). The spike was reabsorbed in early December, as the details of the rescue package were announced, the ECB stepped up bond purchases, and the 2011 budget was approved in the Irish parliament on December 7<sup>th</sup> (Bloomberg News, December 7<sup>th</sup>, 2010). Yields were back at 8% by then and they continued to hover in the 8 to 9% range for the rest of the month.

Figure 6.2.3-3 Ireland 10-year Government Bond Spread to Germany and key events



## **6.3 POLITICAL ECONOMY ANALYSIS OF THE IRISH SOVEREIGN DEBT CRISIS**

### **6.3.1 Evolving investment analysis and the Irish sovereign debt crisis**

Between 2007 and 2010, the Irish economy suffered a spectacular reversal of fortunes: it went from one of the richest and fastest growing in the Western world (the so-called Celtic Tiger), to one of the most stricken by the global financial crisis, and to a deep recession. Gross National Product quadrupled between 1990 and 2007, primarily driven by exports and a credit boom. However, GDP was down 17% by the end of 2009 as the country came to terms with the effects of the global financial crisis and the bursting of the domestic credit bubble (Kelly, 2010).

The trajectory of public finances also reflected the dynamics of the economy. By 2006, Ireland's public sector balance recorded a surplus of 2.9% of GDP and the public debt was the lowest in the Euro area<sup>154</sup> at 24.7 % of GDP. However, the economic downturn, increase in unemployment and property market slump quickly took a toll on public finances, with the budget showing a 14% deficit by 2009, and the debt on track to reach 77.3% of GDP by the end of 2010, according to European Commission calculations in the spring of that year (European Commission, 2010).

While the deterioration in underlying fiscal variables was significant, it paled against the magnitude of the actual and contingent liabilities that the Irish sovereign assumed in order to cushion the impact of the banking crisis that began in 2008. The global financial crisis compounded the impact on Irish banks of the bursting of the domestic property bubble. On September 29<sup>th</sup>, 2008, the Irish government announced a blanket guarantee of all deposits and existing senior bank debt. The decision to cover both deposits and senior bank debt had legal as well as policy motivations, since in Irish law senior bank creditors are ranked

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<sup>154</sup> Except Luxembourg

equally with depositors<sup>155</sup>. The guarantee covered the two main retail banks (Allied Irish Banks and Bank of Ireland) as well as two mortgage lenders and two specialist property developers, Anglo-Irish Bank and Irish Nationwide Building Society (Kelly, 2010). Cumulative guarantees added up to a total of 259% of Irish GDP (Attinasi et al., 2009), creating a much larger potential burden on public finances than in the other Euro area countries. This decision inextricably linked the destiny of the Irish sovereign and the troubled Irish banking system.

Then, in February 2009 Anglo-Irish Bank was nationalised and a special purpose vehicle, the NAMA, was created to acquire non-performing developer loans from the banks. The NAMA was expected to issue state-guaranteed bonds for an amount equivalent to about 30% of GDP, adding further contingent liabilities to public finances. Meanwhile, the mentioned loans were due to be acquired at large discounts (50-70%), which would eventually add to the bank recapitalisation costs falling on the Irish sovereign, given the banks' inability to obtain market financing (European Commission, 2010).

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<sup>155</sup> Policymakers used the legal grounds as the main justification for their decision (Cooper, 2011). That said, policy concerns, spanning both financial and political considerations, played a significant role in the government's decision, as will be highlighted in Section 6.3.3.

**Figure 6.3.1-1 Bank rescue packages announced in 2008**

% of country GDP; source: Attinasi et al (2009)

	<b>Recapitalisations</b>	<b>Guarantees</b>
<b>Austria</b>	5.0	26.0
<b>Belgium</b>	5.1	74.0
<b>Germany</b>	3.5	19.0
<b>Spain</b>	2.8	9.1
<b>Finland</b>	2.1	26.4
<b>France</b>	2.0	16.4
<b>Greece</b>	5.2	6.0
<b>Ireland</b>	5.0	259.0
<b>Italy</b>	3.0	-
<b>Portugal</b>	2.3	11.9

Up to 2008, the Irish sovereign was a “darling” of bond markets, with borrowing costs on average equal to Germany for the period 1999-2008. For a while in 2005-2006, Ireland even enjoyed slightly lower borrowing costs than Germany. Strong economic and public finance performance was prized, while the build-up of private sector imbalances on the back of rapid credit expansion was overlooked.

As the financial crisis struck, markets took some note, sending spreads up to 250 basis points by March 2009. Financial sector vulnerability was a key driver of the move in early 2009 (Mody, 2009), as government bond markets appeared to start recognising at least part of the risk transfer from the banking to the public sector (Attinasi et al., 2009). However, part of the spread increase was reabsorbed in the second half of 2009 and the Irish sovereign continued to have comfortable access to market financing up to mid-2010, as global risk aversion diminished and the Irish government announced fiscal consolidation plans. In the event, Greece, rather than Ireland, was the first Euro area country to suffer the

wrath of the markets in 2010. This happened even though Ireland was the country hardest hit by the banking crisis in the Euro area, while Greece had not experienced a local banking crisis.

For about two years, the Irish sovereign appeared to benefit from its commitment to fiscal discipline, evidenced in the announcement and actual implementation of fiscal consolidation packages. Moreover, in contrast to Greece, Ireland had enjoyed a good track record in fiscal management in the previous twenty years, with a large fiscal adjustment carried out in the 1980s and 1990s. Indeed, the ECB itself praised Irish fiscal decisions in 2009-2010 as an example for the rest of the region (ECB, 2010). Similarly, in its Staff Report, published in July 2010, the IMF highlighted that “through assertive steps to deal with the most potent sources of vulnerability, Irish policymakers have gained significant credibility.” (IMF, 2010b). Similarly, rating agencies remained relatively unfazed by events: Ireland did lose its AAA rating in early 2009, but it still had a very respectable AA rating by mid-2010.

However, market attitudes took a different turn from September 2010. In the space of a few weeks Ireland became one of the worst credits in the world: Irish borrowing costs surged to a level that would be unsustainable in the medium term, the sovereign lost market access and had to turn to external support. Even announcements of fiscal tightening and a multi-year adjustment plan failed to calm the market, in contrast to the experience in the previous two years.

Figure 6.3.1-2 shows how Ireland’s ten-year bond spreads to Germany related to the S-score built in Chapter 4<sup>156</sup>. The spread compression in the period up to 2006 was in large part justified by strong macro fundamentals; meanwhile, between 2007 and mid-2010, markets appeared overall too complacent about the underlying deterioration in the macro backdrop. Government bond markets failed to identify and factor in the risks to public finances created by excessive risk-taking by banks and generally by the overextension of the private sector. Indeed, while at the end of 2008 Ireland’s public sector debt was still

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<sup>156</sup> We created the S-Score as a summary indicator of public and external macro-vulnerability on the basis of four basic macro indicators: public budget balance, public debt, current account balance, and net international investment position (all as % of nominal GDP). The construction of the index is explained in detail in Chapter 4.



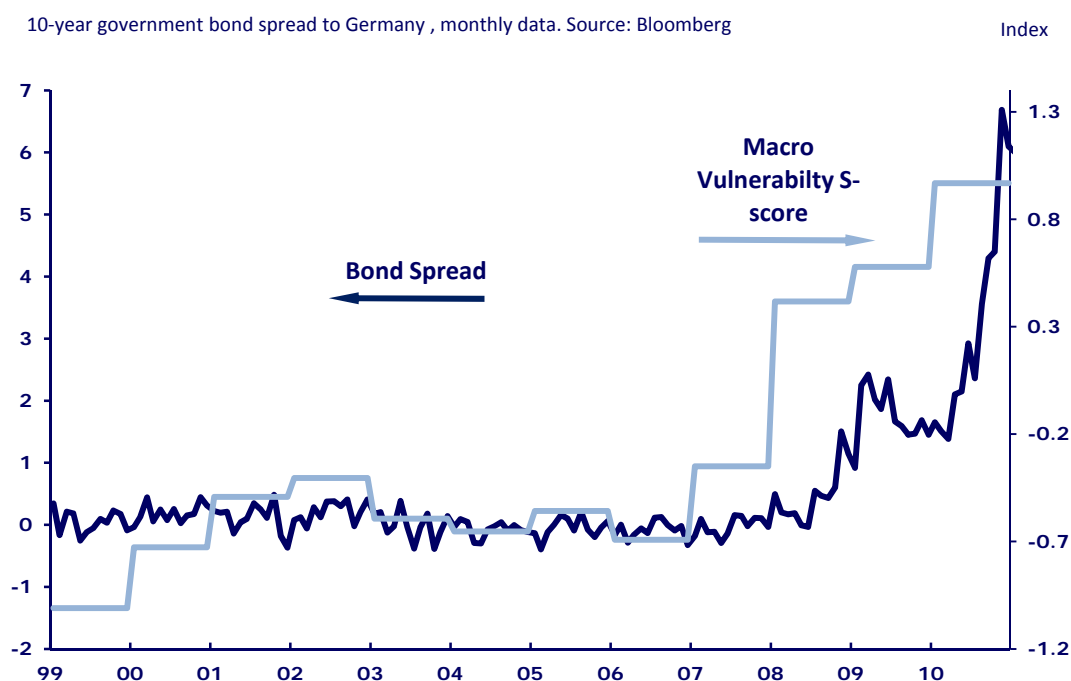
one of the lowest in the Euro area at only 44.2% of GDP, private sector debt was 284% of GDP, the highest in the region, having more than doubled in five years. Meanwhile, bank assets and liabilities had grown sharply, becoming disproportionately large with respect to the size of the country's GDP: total financial sector liabilities had grown to approximately 1000% of GDP. Purely domestic banks accounted for a lower, but still comparatively elevated 300% of GDP.

While in Greece the government bond market failure related directly to a deteriorating fiscal situation, the failure was more indirect in Ireland, as it concerned mostly the link between public and private finances. With their focus on a partial set of variables, bond market prices failed to fully account for the link between public sector creditworthiness and private sector over-extension (and banking sector fragilities<sup>157</sup> in particular). The historical panoramic of Reinhart and Rogoff (2009) shows that there is a strong connection between banking and sovereign debt crises. Banking crises hurt government finances both because of the direct impact of rescue costs and because of the indirect costs of the economic downturn that tends to follow a collapse in the financial system: fully efficient markets would likely not have missed this.

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<sup>157</sup> A separate issue is whether financial markets also underestimated the deterioration in bank balance sheets and bank risk generally, at least for a certain period of time. But this goes beyond the scope of this thesis.

**Figure 6.3.1-2 Ireland bond prices and macro fundamentals**



Notably, our S-score does not directly reflect the magnitude of the banking liabilities or of the transfer of risk from the banking to the public sector in 2008-2009: the degree of market complacency identified in Figure 6.3.1-2 would clearly appear more striking if these were added explicitly. Figure 6.3.1-3 provides a summary of the sovereign bank capital injections agreed in Ireland by November 2010: the total amount had by then reached 45.5 billion euros or 30% of GDP.

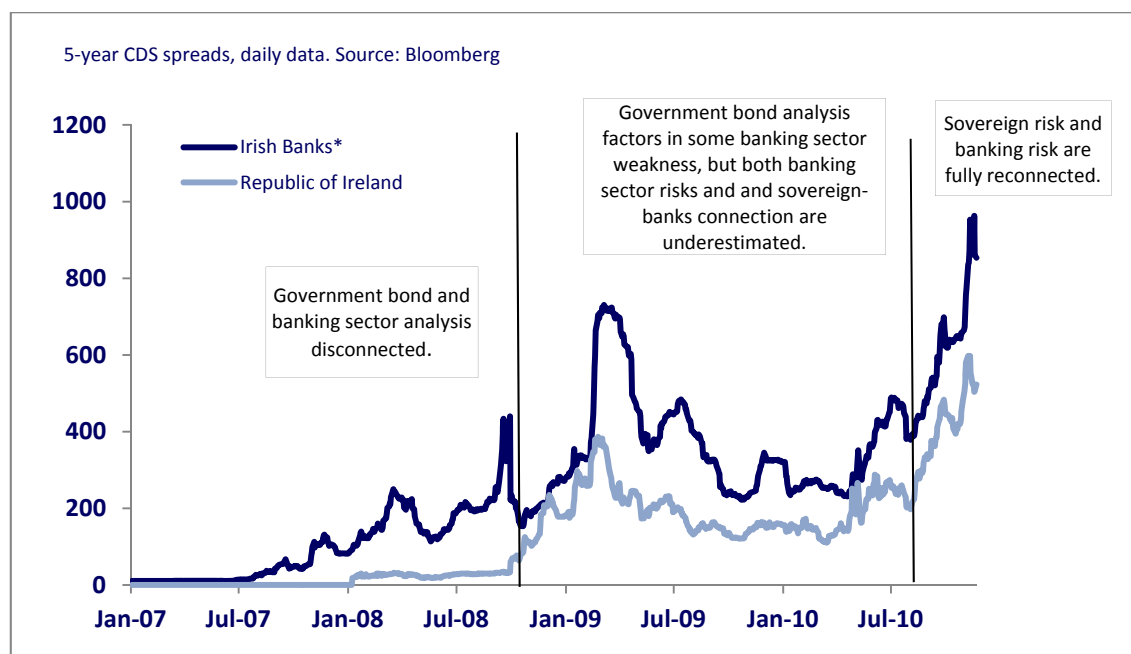
**Figure 6.3.1-3 Irish bank capital injections**

Agreed by November 2010. Source: JPMorgan(2010)

	<b>Euro billions</b>
<b>Bank of Ireland</b>	3.5
<b>Allied Irish</b>	3.5
<b>Anglo Irish</b>	29.3
<b>Irish Nationwide</b>	5.4
<b>EBS</b>	0.4
<b>Total</b>	45.5

Figure 6.3.1-4 aligns five-year sovereign CDS spreads with the corresponding measure for Irish banks. This allows us to compare how risk perceptions evolved over time and in relation to one another. Between mid-2007 and the peak of the sovereign debt crisis in November 2010, we can identify three distinct periods. First, there was a clear disconnect between government bond and banking sector analysis: even as Irish banks' CDS prices climbed in 2008, sovereign CDS prices were virtually unchanged. Then, after the announcement of the sovereign guarantee of bank deposits and senior debt, markets appeared to begin factoring in the "credit risk transfer". However, the move was temporary, and both banking sector risks and the connection between banking woes and sovereign creditworthiness appeared to have been underestimated. Finally, from mid-2010, sovereign and bank risk analysis was re-connected more fully. In this period, sovereign risk premia did better at factoring in banking risk and the extent of the banking problems was more fully recognised.

**Figure 6.3.1-4 Default risk premium on Irish banks and the sovereign**



\*Irish banks is an average of Allied Irish, Anglo Irish and Bank of Ireland

The evolving relationship between the analysis of government bonds and of the banking sector is in turn consistent with the prediction of proposition 1 of our theoretical framework: when investors started to perceive the banking sector woes as potential drivers

of a sovereign debt default, they adapted their mental and valuation models, and started to take into account a broader set of factors. As a result, bond market players became more concerned about the “credit risk transfer” mechanism from banks to the corresponding sovereigns. With Ireland facing potentially unsustainable contingent liabilities from its banking crisis, and indeed being the most vulnerable EMU sovereign from this perspective, a step-up in market worries, likely reinforced by herding, led to a complete re-assessment of Irish sovereign creditworthiness.

So, after a period when the deterioration in fundamentals was underestimated, Irish government debt went in the space of just a few weeks from being considered de facto risk-free to one of the least credible in the world. Can any specific triggers for this move be identified?

Reading the narrative in Section 6.2 in the light of our theory allows us to identify a first catalyst for the sudden shift in market sentiment, which triggered the turning point in sovereign bond yields in August 2010, as well as a second amplifying catalyst that accelerated the market sell-off from mid-October 2010.

The first catalyst was indeed the described major refocusing of markets on banking sector fragilities and the current and future cost that these would imply for the corresponding sovereigns. Between July and September 2010, the banking sector returned in to market focus, first at the European level, as the European bank stress tests were published, and then more specifically in Ireland as larger losses and much higher recapitalisation needs than previously expected were revealed. Moreover, a large debt refinancing hurdle and the expiry of some of the state guarantees loomed for September of that year. The incoming news both caused a fundamental reassessment of the underlying trajectory of public finances and contributed to re-focussing market attention on the link between the banking crisis and sovereign creditworthiness.

The mapping in Section 6.2 illustrates clearly how news relating to banks and bank rescues was the main driver of the Irish bond yield climb between early August and the end of September 2010, when, in less than two months, ten-year bond spreads to Germany rose from 2.3% to 4.5% on September 28<sup>th</sup>, 2010, moving well above the range within which they had hovered since the global financial crisis in 2008. The turning point in the first half

of August coincided with the publication of larger than expected losses by Irish banks, including the revelation of Allied Irish Banks' 1.7 billion euro loss in the first half of the year, and the recognition of the need for much higher bank recapitalisation than previously thought. In particular, the EU approval of a 24.3 billion euro capital injection into Anglo-Irish caused a 50 basis points spread increase in three days.

Then, Standard and Poor's rating downgrade of Irish government bonds from AA to AA- , accompanied by an estimate of a large impact of bank recapitalisation costs on the government budget deficit and debt, definitively pushed Irish-German bond spreads to break above the previous peak of 3%<sup>158</sup> . As in the case of Greece, a rating agency's report also appears to have contributed to "anchoring" market perceptions around a particular source of vulnerability, in this case the implications of bank rescue costs for the public deficit and the debt trajectory. Finally, at the end of September, the finance ministry's clarification of the newly estimated costs of bank bail-outs and the announcement of aggressive policy measures (including a pledge to continue to protect senior bondholders and a renewed commitment to fiscal discipline) relieved some of the market stress, with spreads falling back by about 70 basis points in the following two weeks.

While Irish bond spreads became extremely sensitive to bank-related news from mid-2010, there was a progressive loss of interest in factors that had previously had an impact, in particular announcements of ever more aggressive fiscal adjustment plans. We mentioned before how the credibility of the Irish government's fiscal adjustment plans had contributed to maintaining market confidence in 2009 and early 2010. In the first part of the period covered in the narrative in Section 6.2, similar announcements still seemed to have at least a temporarily calming impact on market stress; but, as time went by, investors increasingly ignored these. Notably, the publication in early November 2010 of the key elements of an aggressive plan for budget adjustment and reform for the following four years failed to dent the bond market sell-off, as did repeated government reassurances about the existing cash reserves in treasury coffers. In the event, multiple announcements of fiscal tightening

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<sup>158</sup> This local peak had been reached at the height of the Greek sovereign debt crisis in May 2010.

failed to stem the market run, confirming the changing focus of investors as concerns evolved over time<sup>159</sup>.

While the late September policy announcements had seemed to ease market worries somewhat, the relative calm lasted only about three weeks. The announcement of the Franco-German Deauville agreement coincided with the start of another phase of spread increases. Accordingly, we identify the Deauville agreement as a crisis-amplifying mechanism, since it contributed to tipping Irish sovereign yields beyond the “point of no return”, magnifying the impact of the existing concerns about bond yields and triggering the last phase of the crisis. Indeed, the agreement and subsequent European Council Conclusions required a reassessment on the part of bond investors of the overall risk embedded in Euro area sovereign debt, at a time when markets were already extremely concerned about Ireland’s prospects. With the reference to private sector participation in the new crisis resolution framework, the possibility of a sovereign debt restructuring in the EMU re-emerged as a material future risk, reversing the impression given by the Greek bailout a few months earlier<sup>160</sup>. The role played by the Deauville agreement in re-igniting the Irish bond sell-off emerges quite clearly from the mapping exercise in Section 6.2. Indeed, in the three weeks following the announcement, Euro area peripheral bond spreads increased across the board, but it was Ireland that took the brunt of market worries<sup>161</sup>. After being on a mild downward trajectory in the first half of October – following the policy announcement at the end of September – Irish bond spreads started climbing again as soon as the agreement was announced, rising by 200 basis points in the following three weeks: ten-year bond yields crossed 7% on November 1<sup>st</sup> and reached 8.9% on November 11<sup>th</sup>. Meanwhile, on November 12<sup>th</sup> the Euro area finance ministers’ clarification that the

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<sup>159</sup> A possible interpretation of this is that as markets started to factor in larger and larger bank related costs they also lost faith in the capacity of even aggressive plans to raise taxes and cut expenditure to offset this and restore public debt sustainability.

<sup>160</sup> The practical implications of the agreement remained unclear in the immediate aftermath of the announcement, creating scope for the markets’ own interpretation to prevail. Indeed, the official statements only contained a vague reference to “private sector participation”.

<sup>161</sup> Ten-year government bond spreads to Germany rose by 101 basis points in Portugal, 40 basis points in Spain and 27 basis points in Italy. Greece’s spreads also rose by 238 basis points, but that country was already under the tutelage of the May rescue package and connected adjustment programme.

“private sector involvement” would not apply to existing bonds or be a condition for EFSF aid contributed to bringing some calm to Euro area government bond markets, with Irish bond yields easing back towards 8% in the following few days.

Evidently, as we saw also in the Greek event study, the changing structure or simply the interpretation of the European framework played a significant role in the unfolding of the sovereign debt crisis over the years, as both policymakers and financial markets went through a process of “discovery” of the true nature and limits of the monetary union. This shows that a change in the external framework can have important implications for the approach that markets use to assess a sovereign’s creditworthiness, leading to a reassessment of a government’s capacity and/or willingness to service and repay its debts.

### **6.3.2 Domestic political economy of the Irish sovereign debt crisis**

As in the case of Greece, markets did not appear interested in Irish politics for many years, in fact up to the time when they dropped the “risk-free” assumption on Irish government bonds. The trade-offs created by the hugely expensive bank rescues, on the one hand, and the need to sharply tighten fiscal policy elsewhere, on the other hand, increased the relevance of political considerations for bond pricing. Due to the nature of the crisis and the way in which the Irish government responded to it (that is, by committing huge resources to bailing out the banks) the main cleavage that emerged in both politics and society was that between banks and the rest of the population. Over time, the Irish majority increasingly questioned the distributional consequences of a bank rescue operation<sup>162</sup>, which committed a huge amount of public resources and resulted in tax hikes and spending cuts that hit the rest of the population.

On the institutional veto player count in the World Bank Database of Political Institutions, Ireland had a score of 5 for checks and balances in both 2009 and 2010. This score was among the highest in the Euro area and among developed democracies generally<sup>163</sup>,

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<sup>162</sup> For example, 57% of the population thought Ireland should default on bank debt, according to a Sunday Independent poll in late November 2010.

<sup>163</sup> The highest score in the Euro area and among developed democracies was 6, assigned to the Netherlands.

although a closer look at the nuances of the political system suggests a somewhat lower degree of power diffusion than indicated by a mechanistic count.

While the Irish system fits into the definition of semi-presidential (Elgie, 1999), since it holds direct elections for president, the actual distribution of power is closer to that of a parliamentary democracy (Gallagher, 2010). The Dail is the dominant house of the legislature and its members (Teachta Dala or TDs in the Irish denomination) are elected through a complex proportional system. Coalitions are typically formed to support a new government and nominate the Taoisaiech (prime minister). Since 1977, no election has produced a single-party majority government, with minority governments in power a third of the time (Gallagher, 2010).

However, the Irish political system does not entirely match the consensus model (as defined by Lijphart, 1999), but it is normally considered an intermediate case between the majoritarian and the consensus models (Gallagher, 2010). In spite of being a multi-party system based on proportional representation, a number of features of the Westminster model of democracy are also present. These include “bare majority cabinets, no effective separation of power between government and parliament, unbalanced bicameralism, and unitary and centralised government” (Gallagher, 2010, p. 202). The overall result is to make the Taoisaiech one of the most powerful prime ministers in Europe (O’Malley and Martin, 2010). As a result, the overall concentration of power – particularly in the hands of the Taoisaiech – tends to be higher than indicated by standard institutional veto player counts, as pointed out for example in Conley and Bekafigo’s study (2009) of legislative productivity. That said, even when these moderating factors are considered, at the time of the sovereign debt crisis the Irish institutional veto player constellation was clearly more fragmented than the highly concentrated power structure seen in the Greek event study, as described in Chapter 5.

Indeed, the Irish government entered the crisis with a fragmented support base, and certainly more fragmented than the absolute majority held in Greece by Papandreou and his party in late 2009. After the 2007 election, Ahern, the leader of the Centre-Right Fianna Fail, was confirmed for a third term as Taoisaiech, with the support of a “rainbow coalition”

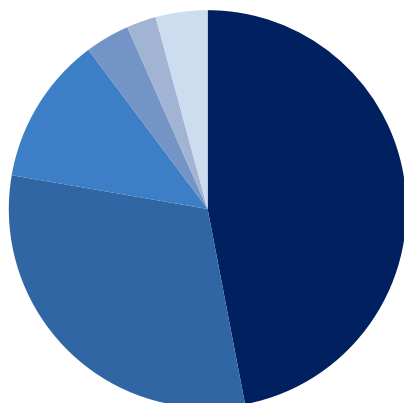


with Greens, Progressive Democrats (PDs) and a few independent TDs<sup>164</sup>. After Ahern's resignation, Brian Cowen took over as Fianna Fail leader and Taoiseach in May 2008: by early 2010, a slim government majority was made up of Fianna Fail, the Green party and three independent TDs.

**Figure 6.3.2-1 2007 Ireland election results**

Dail seat by party; Source: electionsireland.org

■ Fianna Fail, 78   ■ Fine Gael, 51   ■ Labour, 20  
■ Green, 6   ■ Sinn Fein, 4   ■ Others, 8



The “credibility” literature would anticipate that Ireland’s relatively high degree of power diffusion within the institutional political system would have strengthened the sovereign’s credibility in financial markets during the sovereign debt crisis, other things being equal. Meanwhile, the alternative “consolidation” approach would imply higher risk premia due to a higher degree of policy paralysis.

<sup>164</sup> We will describe the main features of Fianna Fail, historically the dominant party in Irish politics, later in this section. The Green Party is founded on a Green-type political ideology; the Progressive Democrats, followed liberal, free market ideas, but the party was dissolved in 2009. Independent TDs are a diverse group not affiliated to any party. They are more important in the Irish Parliament than in the rest of Western Europe and North America: they tend to be present in higher numbers; they have been present in the post-independence Irish parliament; and they have sometimes acted as “kingmakers in the formation of governments” (Gallagher, 2010, p. 146).

The crumbling between September and November 2010 of the fragmented political coalition supporting Cowen's government created a backdrop of political uncertainty that contributed to worsening financial market tensions at the height of the crisis. Figure 6.3.2-2 illustrates the evolution of popular support for the main Irish political parties: as the crisis unfolded the share of voters supporting Fianna Fail collapsed, while Fine Gael and the Labour party became the front-runners.

**Figure 6.3.2-2 2010 Opinion Polls in Ireland**

% of total; Source: electionsireland.org on data from Red C/Sunday Business Post

Date	Fianna Fail	Fine Gael	Labour Party	Green Party	Sinn Fein	Others
31/01/2010	27	34	17	5	8	9
28/02/2010	27	34	17	5	9	8
28/03/2010	24	35	17	5	10	9
02/05/2010	23	33	24	6	6	8
30/05/2010	24	30	22	5	10	9
27/06/2010	24	33	27	2	8	6
26/09/2010	24	31	23	3	10	9
24/10/2010	18	32	27	4	9	10
21/11/2010	17	33	27	3	11	9
03/12/2010	13	32	24	3	16	12
18/12/2010	17	34	23	2	14	10

The prospect of political turnover as a consequence of Fianna Fail's nose-diving approval rating, and the progressive loss of support from the Green Party and independent TDs in the government coalition, acted as an additional source of bond market stress, in particular in November and December 2010, prolonging market uncertainty even after the announcement of the external rescue package in late November. By November 2010, the government relied on a moving set of independent TDs to maintain its working majority<sup>165</sup>. The weakening parliamentary support for the Cowen government created the risk that the adjustment programmes and international commitments of the executive would not be

<sup>165</sup> By then, Fianna Fail had 70 seats, the Greens six seats plus one seat of the independent health minister. The required majority was at that time 81 seats.

validated by parliament. Moreover, as evidence grew that an election and a change in government leadership were around the corner, the high likelihood of political turnover in the short term meant that bond markets needed to take into account also the positions of the likely new government when assessing the credibility of the commitments made by the Irish sovereign. Similarly, the European partners and the IMF required the opposition parties to buy into the government policy of budget consolidation plans and bank rescue strategies – including the sovereign guarantee of senior bank bonds – when negotiating the conditionality of the rescue package.

Quantifying exactly the impact of political news at a time of high economic, financial and fiscal turmoil can be difficult, but the timing of the bond market moves suggests that political uncertainty did, at least temporarily, add to market concerns at the height of the debt crisis. Two main sets of news items pointing to the progressive crumbling of the government coalition coincided with the two main phases of upward movement in Irish bond spreads. The first was in September, when the coalition lost the support of an independent TD, the opposition started calling for early elections and rumours circulated that Taoiseach Cowen would be replaced. The second was in late October and early November, when Fianna Fail's approval ratings were reported to have collapsed to 10%, an independent MP resigned, and a by-election by the end of November was demanded by the High Court. An even clearer signal of the relevance of market concerns about the political backdrop was the behaviour of bond yields in the latter part of November and in early December. On November 22<sup>nd</sup>, the day after Ireland's formal application for aid, the Green Party announced that it intended to leave the government and requested a new general election in early 2012; a few days later, the incumbent coalition lost a supportive TD in the Donegal by-election. These events coincided with a reacceleration in Irish ten-year bond yields, which rose to 9.4% by November 30<sup>th</sup>: among other things, markets now had serious doubts concerning the capacity of the enfeebled government to garner enough support for approval of the 2011 budget and four-year consolidation plan.

While news concerning political fragmentation contributed to increase the volatility and, at least temporarily, the level of Irish sovereign bond spreads during the period under consideration, Irish sovereign credibility did not suffer from the indirect damages generated by Greece's high concentration of formal political power. In particular, in contrast to

Greece's informational opacity, the Irish government had a much more transparent communication strategy. Moreover, during the period under consideration, the evidence from the narrative in section 5.2 is that Irish policy-makers in spite of temporary uncertainty and some political bickering, were in the end able to deliver fiscal consolidation and reform measures more effectively than had happened in Greece in similar circumstances, and both markets and European partners appeared to recognise that. This was consistent with the historical pattern: the Irish system had demonstrated in the late 1980s a capacity to deliver significant fiscal consolidation, as well as to deliver excellent subsequent fiscal performance.

The mixed evidence gathered in the mapping exercise of both the Irish and Greek sovereign debt crisis suggests that bond markets did not differentiate between the two sovereigns strictly on the basis of the institutional veto-player configuration. Given the anticipated inadequacy of the focus on formal checks and balances, hypothesis 2.2 extends the analysis to the broader political system, predicting that Ireland's lower level of socio-political contestation would have boosted sovereign credibility in financial markets.

As mentioned in Chapter 4, the Irish social and political landscape features exceptionally low cleavages along the Left-Right continuum and low levels of social contestation on economic issues - a major difference from Greece's high level of ideological polarisation and social contestation.

The Irish party system presents the unusual feature of not being based on class cleavages (Weeks, 2010). The two parties that historically have dominated the political landscape, Fianna Fail and Fine Gael, are not differentiated by their position on the Left-Right continuum. They are primarily identified through their origins as pro- or anti- Anglo-Irish Treaty at the time of independence in 1921. Instead, on economic policy, both Fianna Fail and Fine Gael mostly represent similar Centre-Right economic beliefs. Laver, Benoit and Garry (2010) develop summary metrics of Irish party positions on economic policy based on the words appearing in their manifestos at the 1992 and 1997 elections. The resulting scores leave Fianna Fail and Fine Gael very close on the economic policy positions scale: as a reference, the relative scores of 15.32 and 13.18 in 1997 compare with a much larger dispersion identified between the UK Conservative and Labour parties, of 9.17 and 17.18

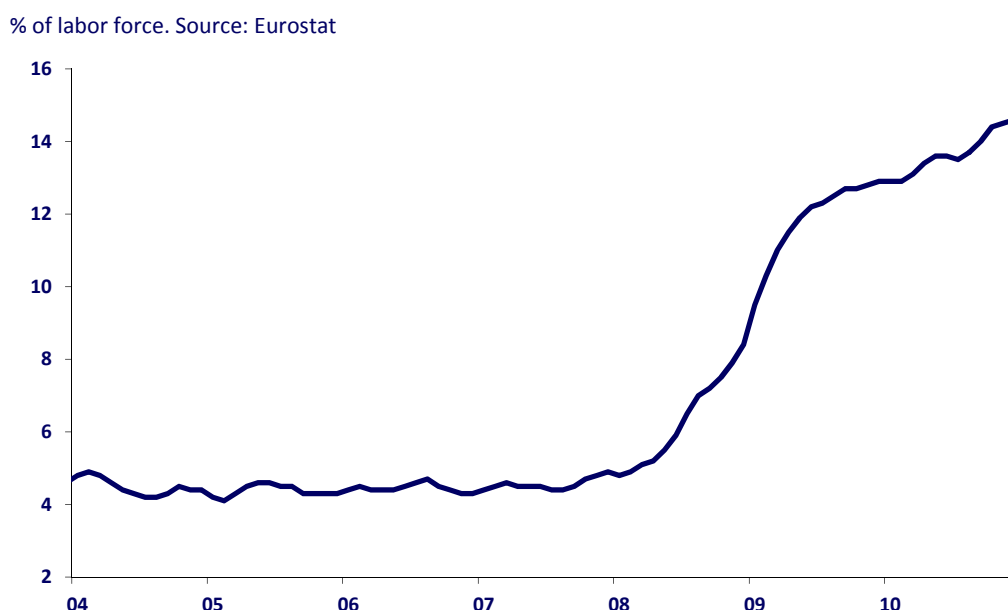
respectively, in the same year. In contrast, the Left, represented principally by the Labour Party (with a score of 6.78 on the measure of Laver et al.), was traditionally very weak up until the time of the sovereign debt crisis (Weeks, 2010): in the four parliamentary elections held between 1992 and 1997, the three Centre-Right parties received almost 70% of first preference votes, much higher than the 43% average in the rest of Western Europe for the same period (Weeks, 2010).

The mentioned similarity of economic beliefs contributed to a relatively low level of contestation by Fine Gael, the leading opposition party, of the economic measures undertaken by the Fianna Fail-led government. This does not mean that there was no criticism of the government, but that the criticism did not go to the heart of market concerns and that the attitude of the opposition was on balance collaborative at critical junctures. This was in contrast with the strongly adversarial rhetoric adopted by the New Democracy opposition party in Greece.

Meanwhile, the opinion polls depicted in Figure 6.3.2-2 show how the Irish Labour Party gained considerable support during the sovereign debt crisis, taking over as the second party, according to opinion polls, by November 2010. The increasing and novel success of the Left-wing Labour Party revealed changing attitudes on the part of the electorate, plagued by the deep recession and sharply increasing unemployment as well as fiscal tightening. It suggests that the huge costs and distributional implications of the bank rescue programmes may have started to generate previously non-existent economic cleavages within the Irish electorate<sup>166</sup>. From a bond market perspective, given the homogeneity in the economic policy positions of Fianna Fail and Fine Gael, it was the ascent of the Labour Party that had the most potential to prove disruptive.

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<sup>166</sup> This is an interesting aspect that warrants future research attention in the context of studies assessing the political consequences of financial crisis and economic hardship.

**Figure 6.3.2-3 Ireland Unemployment rate**

In fact, public sector employees (hit hard by wage cuts and staff reductions) are the main traditional constituency of the Irish Labour Party. Moreover, the party was vocal for a while on the need to let senior bank bondholders share in the losses in spite of the government's blanket guarantee. However, as with Fine Gael and other smaller parties, the Labour Party behaved in a collaborative way when it came to underwriting the medium-term fiscal programme, which would commit not only the existing leadership, but also the next legislature.

The absence of strong class cleavages identified in the party system is also reflected in a typically low level of overall social contestation in Ireland. As a measure of the overall lack of class-based socio-political contestation in the last few decades, it is interesting to note there was no general strike reported in Ireland in the period from 1980 to 2008 (Kelly and Hamman, 2010). Following the social pact of 1987, liberal corporatism - based on the collaboration between state, labour and capital - was a key feature of Irish politics and labour relations for twenty years<sup>167</sup>. This is in stark contrast with adversarial labor relations

<sup>167</sup> Ireland used social pacts as basis for an income policy at the national level (Regan, 2012). The only other EMU country using social pacting with such national breadth was Finland.

in Greece, which accounted for almost half of all the general strikes held in Western Europe in the same period.

Consistent with historical patterns, the attitude of civil society with regard to government decisions during the sovereign debt crisis was remarkably cohesive when compared to the Greek experience<sup>168</sup>. During the period covered in the narrative in Section 6.2, there was no major market-moving episode of social unrest reported. Minor incidents, such as a church occupation by a group of pensioners<sup>169</sup> and student protests in response to an increase in university fees<sup>170</sup>, paled in comparison with the at times deadly clashes reported in Greece. Indeed, these minor episodes were all but ignored by the financial markets. As a result, a crucial difference between the news flows generated by the Greek and Irish crises was the lack of meaningful episodes of social unrest in response to the fiscal consolidation measures enacted by the government in Ireland. This eliminated a possible source of market jitters: in contrast to the Greek experience, in the Irish crisis-mapping exercise we did not find spread moves suggesting a loss of credibility of government policies as a consequence of popular protests.

From the perspective of our theoretical framework, these findings concerning the role of socio-political cohesion contribute to explaining why the Irish sovereign maintained a higher degree of financial market credibility throughout the sovereign debt crisis than the Greek government, supporting the prediction of hypothesis 2.2 of our theory. Moreover, in contrast to the Greek event study, in Ireland a relatively developed system of checks and balances at the institutional level was responsible for representing a relatively low level of conflicting de-facto veto player voices, which hypothesis 2.3 identifies as the market preferred combination of socio-political contestation and formal veto players in the broader political system.

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<sup>168</sup> Although, Regan argues that the role of social pacting diminished in the 2008-2010 crisis adjustment process compared to very successful prior Irish experiences (Regan 2012).

<sup>169</sup> Cooper (2011)

<sup>170</sup> Flynn (2010)

### 6.3.3 International political economy of the Irish sovereign debt crisis

The international political economy dimension was important in shaping the Irish sovereign debt crisis. In many respects, the conflict between domestic and external interests was a defining feature of the Irish crisis as a whole, and throughout the period the external dimension could scarcely be disentangled from the domestic political dynamic.

On the one hand, the Irish government's decision to guarantee bank debt as well as bank deposits in September 2008, and generally to provide unfettered support for the banking system, engaged domestic sovereign resources for the benefit not only of its own citizens, but also (and arguably even more) of foreign investors (who held the majority of bank bonds), the rest of Europe and the international community (as an Irish bank implosion or default could have caused contagion to the rest of Europe and chain reactions at the global level)<sup>171</sup>.

On the other hand, in November 2010 pressure from European partners, the ECB and the international community to accept external support reversed the natural debtor/creditor dynamic, with creditor countries actually pushing a debtor country to accept their resources in order to prevent a possible intensification of the crisis and ramifications at the European and global levels. The opposite had happened in the Greek episode, as EMU partners and particularly Germany tried up to the last minute to avoid engaging their resources. As a result, the EU/IMF rescue package was made available to Ireland relatively quickly, contributing to a faster resolution of the most acute phase of the crisis, and limiting the impact on financial markets in the rest of Europe and at the global level<sup>172</sup>.

In that context, the ECB in particular emerges as a key de-facto external veto player. The ECB played an important role in persuading Irish policymakers to request external help earlier than they would have wished; the narrative in Section 6.2 illustrates how Central

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<sup>171</sup> Cooper (2011) argues that the ECB contributed to pressuring Irish policymakers to guarantee all senior bank debt. According to anonymous interviews, ECB President Trichet telephoned Finance Minister Lenihan just ahead of the decision with the message that "Lenihan was to do whatever it took to prevent an Irish bank from failing" (Cooper, 2011, p. 176).

<sup>172</sup> The other side of the story is that the ECB and the Eurosystem were arguably abused by the Irish authorities as a national printing press.



Bank Governor Honahan was the first Irish policymaker to concede that the country might request external aid, immediately after his participation in the ECB Governing Council meeting on November 18<sup>th</sup>, 2010<sup>173</sup>. In November, the Irish sovereign had sufficient cash reserves to cover its liquidity needs until about the middle of 2011, and Irish leaders had a preference for staying out of an external rescue programme for as long as possible in order to protect the country's economic sovereignty. Meanwhile, the ECB wanted Ireland to access EFSF/IMF funding as soon as possible, since it was concerned about the consequences of prolonged Irish turmoil for Euro area and global financial stability – particularly with regard to contagion risk - as well as for its own balance sheet exposure.

Notably, the ECB had both an interest in getting Ireland's crisis resolved as soon as possible and the influence to get its preferences implemented, making it a crucial holder of veto power in the default/consolidation/bail-out decision. This de-facto veto power came principally from the ECB and Euro area national central banks (Eurosystem)'s position as main supplier of liquidity for the Irish banking system. With Irish banks dependent on Eurosystem financing to survive, an ECB threat to “pull the plug” would have been equivalent to a death sentence for both Irish banks and the Irish sovereign.

Indeed, besides the ECB's broader mandate concerning monetary and financial stability in the Euro area, since the beginning of the financial crisis the Eurosystem had increasingly taken the role of liquidity lifeline for Euro area banks<sup>174</sup>. Moreover, since May 2010, it had started intervening directly in the secondary bond markets of the small peripheral economies through the Securities Market Programme (SMP). To the extent that the importance of these support measures grew, the ECB both acquired additional country exposure and increased its power to influence the decisions of debtor governments.

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<sup>173</sup> Cooper (2011) uses anonymous interviews to describe in some detail the interaction between Irish Prime Minister Cowen, Irish Central Bank Governor Honahan and the Governing Council of the ECB in the last few days leading to Ireland's external aid application. These interactions confirm the impression obtained in our mapping of publicly available information that the European Central Bank played a decisive role in pushing Ireland into the arms of the EFSF and the IMF earlier than the Irish government would have wished.

<sup>174</sup> This liquidity could in turn be recycled to purchase government bonds.

To understand the dynamic, it is important to recognise how decision-making, implementation, and risk-taking work for the main Eurosystem policy tools<sup>175</sup>:

- The ECB Governing Council in Frankfurt takes policy decisions. This covers both repo operations and SMP bond purchases.
- The National Central Banks (NCBs) execute monetary policy repo operations - Main Refinancing Operations (MROs) and Long Term Refinancing Operations (LTROs) - with the lending position sitting in the balance sheet of the national central bank concerned (the Central Bank of Ireland in this case); meanwhile, SMP bond purchases are executed by both the National Central Banks (NCBs) and the ECB itself.
- The gains and losses from activities related to monetary policy (including principally the repo operations mentioned above) are normally attributed to the NCBs according to their share in the capital of the ECB (or “capital key”, which in turn is based on the size of the economy and population). The NCBs are expected to take provisions at the national level according to this criterion, rather than on the basis of the exposure originally incurred.

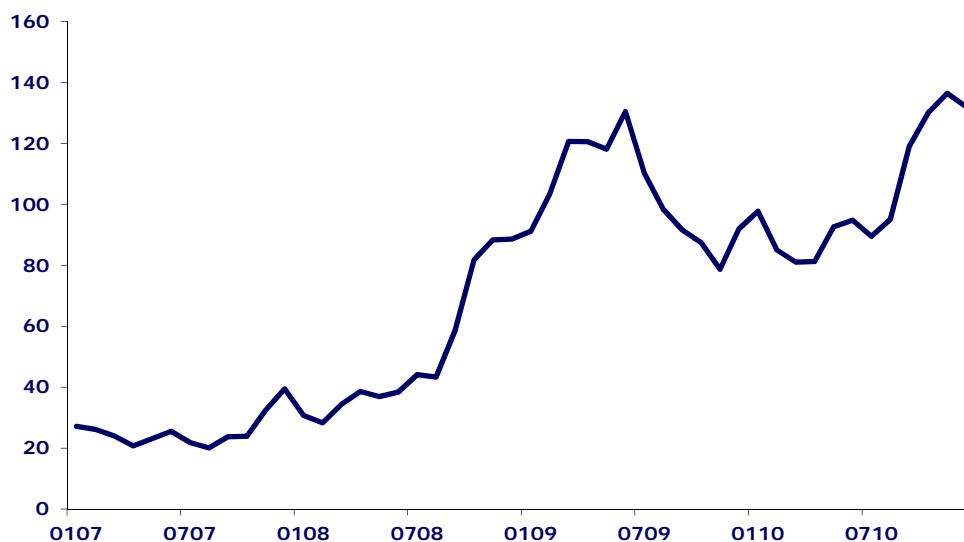
By late 2010, Irish bank borrowing at the Eurosystem through repo operations had become disproportionately large relative to the country’s GDP, and second only to Greece relative to bank assets (Figures 6.3.3-1 and 6.3.3-2). The lending was collateralised, but the quality of Irish collateral was deteriorating by the day.

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<sup>175</sup> The monetary policy strategy of the ECB is described in ECB (2011a), while a detailed description of monetary policy operations is provided in ECB (2011b).

**Figure 6.3.3-1 Ireland banks borrowing at the central bank**

Monetary policy related lending. EUR billion. Source: Central Bank of Ireland

**Figure 6.3.3-2 Banks' borrowing at the central bank**

Nov-10

	<b>Banks' borrowing</b> EUR billions	<b>Banks' borrowing</b> % of GDP	<b>Banks' borrowing</b> % of bank assets
<b>Euro area total</b>	<b>528.9</b>	<b>5.80</b>	<b>1.64</b>
<i>of which:</i>			
<b>Germany</b>	93.0	4.13	1.22
<b>Italy</b>	28.8	2.18	0.73
<b>Ireland</b>	136.4	82.99	10.94
<b>Greece</b>	95.1	39.42	17.72
<b>Portugal</b>	37.9	23.35	7.92
<b>Spain</b>	64.2	6.54	1.96

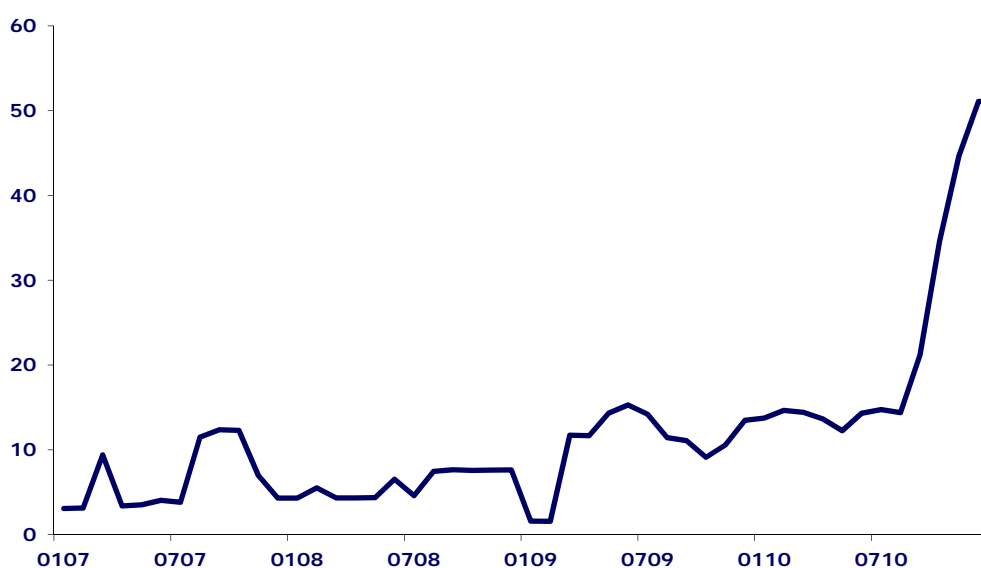
Source: ECB and National Central Banks.

Moreover, the Irish Central Bank was acquiring significant additional exposure to banks through Emergency Lending Assistance (ELA) operations (Figure 6.3.3-3). This lending was even riskier than monetary policy operations, as it was carried out with those banks unable

to provide suitable collateral to the ECB window. The risks and decisions rested with the national central bank, but the ECB was clearly concerned about unilateral money creation by a national central bank and the risks that the undercapitalisation of the Irish Central Bank might create for the Eurosystem as a whole.

**Figure 6.3.3-3 ELA and “other assets” at the Central Bank of Ireland**

Eur billion; source: Central Bank of Ireland



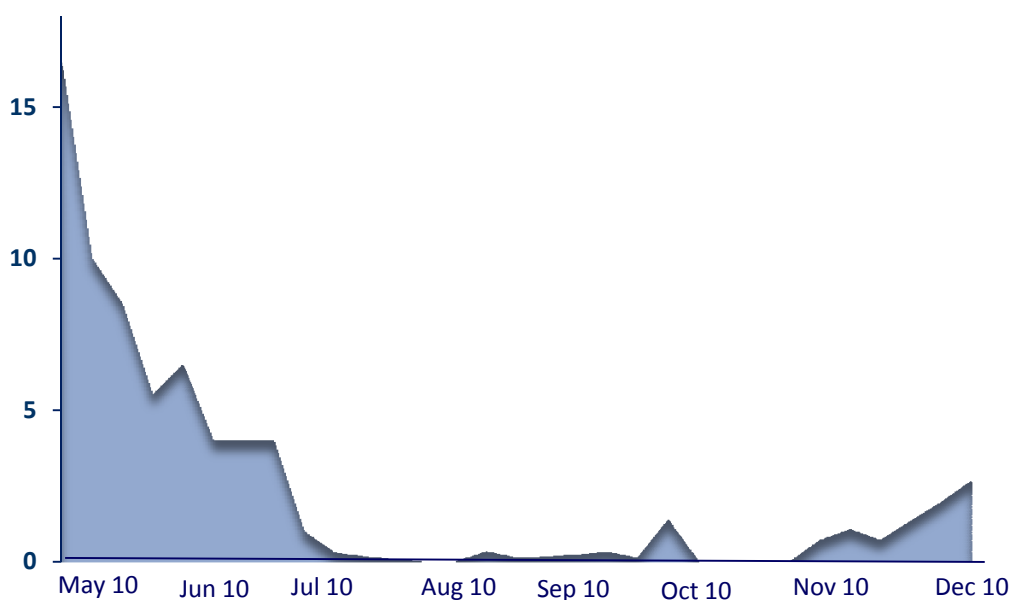
Thus, by October 2010 the ECB Governing Council had at least three reasons for preferring Ireland to access EFSF and IMF resources to fund sovereign financing needs and recapitalise banks:

- 1) An increasing risk exposure to Irish assets – some of dubious quality - acquired as collateral in open market operations;
- 2) Broader concerns about the excessive central bank balance sheet expansion and the impact of excessive money creation, since the economy had started improving in core European economies;
- 3) A significant risk that an intensification in the Irish sovereign and banking crisis would affect the sovereigns and banking systems in other EMU countries.

Meanwhile, the counterpart of the Eurosystem exposure to Irish risk was an increased influence on the decisions of Irish policymakers. An early exit from the exceptional bank liquidity support measures introduced from 2007, such as full allotment in auction and longer term refinancing operations, or a policy rate increase, would have hurt Irish banks and the Irish economy more than most in the region. Broadly, the ECB's role in managing the price, length and amount of refinancing operations gave it a power of "life-or-death" over Irish banks and therefore over the creditworthiness of the Irish sovereign. Similarly, with the SMP programme, the ECB retained a choice of whether or not to intervene directly to contain moves in sovereign bond prices through secondary market purchases, thus supporting or not supporting Irish government actions. Data on weekly SMP purchases<sup>176</sup> (Figure 6.3.3-4) and bond traders' comments, highlighted in Section 6.2, show a pick-up in bond purchases at the most intense phases of the crisis, but with clearer conviction once the bail-out was agreed.

**Figure 6.3.3-4 Eurosystem SMP in 2010**

EUR billion, weekly purchases, Source: ECB



<sup>176</sup> This data does not distinguish by nationality of issuer.

While in the case of Greece we identified Germany, a sovereign partner within the EMU, as holding the key external veto, in the case of Ireland a supranational institution played that role. The evolution of the Euro area institutional framework during the period between the two episodes<sup>177</sup>, reducing the role of individual country creditors and empowering supranational institutions, and the importance of the banking crisis in the Irish case, contributed to making the ECB the crucial external interlocutor for Ireland as well as the key external veto player monitored by financial markets. Remarkably, Germany, in the Greek episode, and the ECB, in the Irish episode, had two crucial features in common: first, they were both external creditors<sup>178</sup>; and, second, they both held power and resources that could prove determinant for the fate of the debtor sovereign.

Since the ECB is a collective decision-making institution, where representatives from the member country central banks are represented, the issue arises as to whether in our analysis the ECB should be considered as an actor with its own independent preferences or be treated just as a reflection of the preferences of one of more member countries (Germany in particular). Our approach of analysing it as an actor with its own preferences and powers is consistent with the concept of ECB independence, a key principle of the Maastricht Treaty: members of the Governing Council are supposed to act on the basis of regional rather than specific countries' interests. In reality, it cannot be excluded that ECB Council decisions may have been directly or indirectly influenced by the preferences of some individual member countries, for example weak EMU peripheral countries fearing contagion or Germany fearing excessive money creation or credit risk exposure by the ECB.

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<sup>177</sup> The creation of the EFSF and the active role assumed by the ECB in secondary bond markets with the SMP both reduced the immediate need to obtain support from EMU partner countries at every step of the way, although they did not eliminate it.

<sup>178</sup> Due to considerable lending to Irish banks in open market operations, the Eurosystem was the country's largest single creditor by the time of the sovereign debt crisis. As mentioned above, while the lending was materially carried out by and formally held on the Irish Central Bank balance sheet, eventual losses would have to be borne by National Central Banks according to ECB capital key shares.

However, a further analysis of the role of EMU country politics in the formation of ECB Governing Council preferences is beyond the scope of this thesis<sup>179</sup>.

Going back to the role of the ECB in the Irish sovereign debt crisis, hypothesis 3.1 of our theoretical framework anticipates that, as a de-facto external veto player in the default/consolidation/bail-out decision, its preferences will have been significant for investor assessment of sovereign risk. The role of the preferences and actions of the ECB in influencing the trajectory of the Irish sovereign debt crisis can be inferred from both the narrative in Section 6.2 and the incentives and inter-linkages highlighted above. Moreover, the mapping exercise in Section 6.2 also brings some specific examples as to the bond spread impact of ECB Irish bond purchases in the context of the SMP programme. The impact of SMP purchases on bond spreads can be discerned in a few instances, although always within the context of a complex set of drivers. Indeed, as mentioned above, SMP purchases appeared to be timed to reward, and to reinforce the impact of, the Irish government's policy announcements as well as the acceptance of the rescue package. Thus, the step-up in bond purchases in the week ending October 1<sup>st</sup> contributed to the easing of market stress in early October, in parallel with the Irish government's policy announcements of September 29th; similarly, the step-up in SMP purchases in late November and early December contributed, along with the effect of the Irish rescue deal, to arresting the increase in bond spreads.

Overall, the role played by the ECB in shaping the dynamic of the sovereign debt crisis in general and government bond spreads in particular during the Irish sovereign debt crisis reinforces the evidence described in Chapter 5 in relation to the Greek event study, where

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<sup>179</sup> Cancelo, Varela and Sanchez-Santos (2011) find some empirical evidence that domestic developments influence the preferred interest rate of individual Council members, and that some members hold agenda-setting powers. An analysis of the extent to which and how member countries preference filtered through to the ECB's own preferences during the sovereign debt crisis, including how that changed with the leadership transition from Trichet to Draghi, would make a very interesting topic for future research.

The ECB may also have acted in reaction to pressures from other external forces, such as authorities from the US and the UK, which were among the largest external creditors of the Irish economy and generally feared the spread of systemic financial risk from Ireland to the rest of the world. Indeed, always on the basis of anonymous interviews, Cooper (2011) argues that the ECB was "prompted by even more significant political forces from across the Atlantic" (Cooper, 2011, p. 6).

German preferences emerged as important in shaping the dynamic of sovereign bond spreads.

Hypothesis 3.2 of the theoretical framework takes the analysis a step further, postulating that a higher degree of proximity between debtor and creditor countries will increase the debtor's credibility in financial markets.

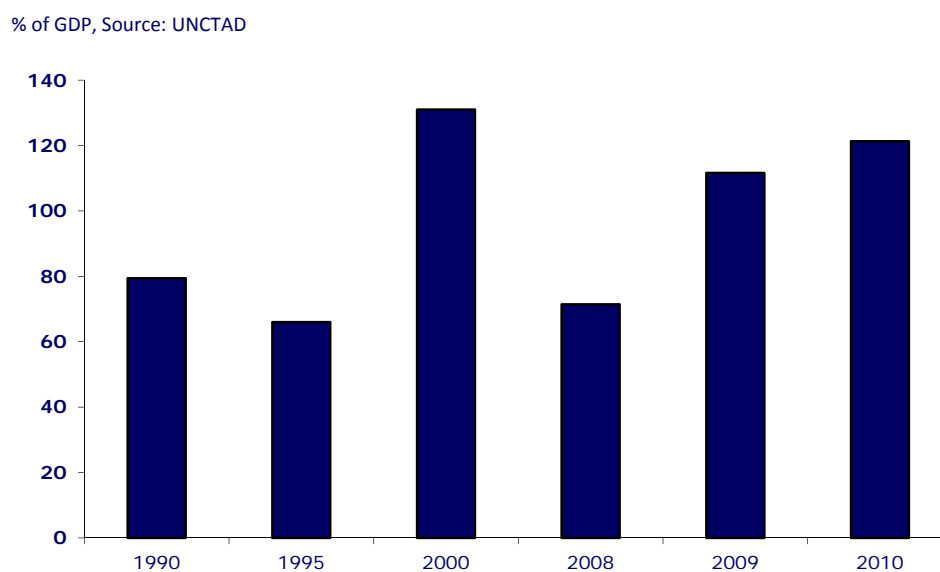
In contrast to Greece's low level of European and international integration, Ireland is one of the most open economies in the world. The Irish economy's success story in the 1990s and 2000s was strictly connected with its export performance and capacity to attract foreign direct investment. Ireland ranks fifth in the world for both exports and direct investments as share of GDP (data in Figures 6.3.3-5 and 6.3.3-6); it also has the highest share of employment in foreign affiliates in the OECD (OECD, 2010). Indeed, over the last twenty years, Ireland has had remarkable success in attracting FDI in high technology export-oriented sectors (particularly in pharmaceuticals, chemicals, computers, electronic machinery) and finance. Ireland is a preferred location for US multinationals' hubs in Europe and US multinationals have typically been among the largest investors in the country (Economist Intelligence Unit, 2008); the UK and the Netherlands also played an important role.

**Figure 6.3.3-5 Ireland Exports as % of GDP**

	<b>Total</b>	<b>Goods</b>	<b>Services</b>
<b>2000</b>	97%	78%	19%
<b>2005</b>	81%	52%	29%
<b>2008</b>	83%	47%	37%
<b>2009</b>	91%	51%	40%
<b>2010</b>	101%	55%	46%

Source: OECD



**Figure 6.3.3-6 Ireland Inward FDI**

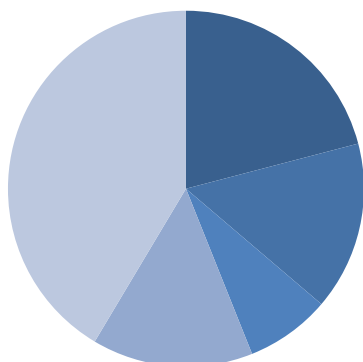
The direction of foreign trade (Figure 6.3.3-7) also reflects the greater role played by the US than in other EMU countries, as well as the particularly strong connection with the UK. Moreover, the bulk of Irish exports are actually produced by foreign-owned firms - 90% in 2008, according to Brennan and Verma (2010), meaning that a much higher than usual share of Irish Gross Domestic Product accrues to foreign residents<sup>180</sup>.

<sup>180</sup> This peculiarity in the Irish situation comes across also in the national accounts statistics: Gross Domestic Product (GDP) is significantly larger than Gross National Product (GNP) in Ireland. The difference is the net factor income accruing to the rest of the world. For the period 2011-2014, the National Recovery Plan anticipated GNP to be 79% of GDP (Ireland Department of Finance, 2010b). Meanwhile, the two magnitudes are normally very similar in most countries around the world.

**Figure 6.3.3-7 Ireland main trade partners****Ireland main export partners**

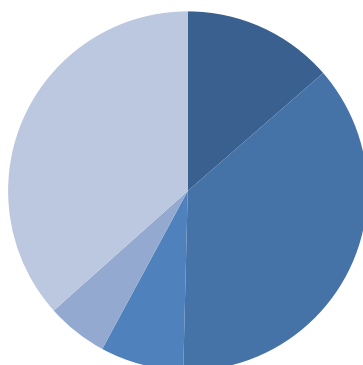
2010, Source: EIU (2010)

■ US ■ UK ■ Germany ■ Belgium ■ Others

**Ireland main import partners**

2010, Source: EIU (2010)

■ US ■ UK ■ Germany ■ Netherlands ■ Others



The high dependence of Irish economic prosperity on international trade and investment flows helps to explain the priority it assigns to preserving credibility vis-à-vis external creditors, even at a high domestic cost, and in spite of the fact that most of its bonds were held abroad when the sovereign debt crisis started (Figure 6.3.3-8). Indeed, at the end of 2010, non-Irish residents held 82% of the long-term government bonds outstanding (Killian et al., 2011).

Figure 6.3.3-8 Irish government bond ownership

Source: Killian (2011)

	End of 2009		End of 2010	
	Euro billions	% of Total	Euro billions	% of Total
<b>Banks and CBI</b>	8	11%	12.7	14%
<b>Government</b>	0.3	0%	0.8	1%
<b>Financial Intermediaries</b>	2.9	4%	2.2	2%
<b>Non-financial corporations</b>	0.1	0%	0.03	0%
<b>Households</b>	0.2	0%	0.3	0%
<b>Total Irish</b>	<b>11.9</b>	<b>17%</b>	<b>16</b>	<b>18%</b>
<b>Rest of the world</b>	<b>59</b>	<b>83%</b>	<b>74</b>	<b>82%</b>
<b>Total</b>	<b>70.9</b>	<b>100%</b>	<b>90</b>	<b>100%</b>

In other words, Ireland had too much at stake to risk jeopardising relationships with external financiers and trade partners by a sovereign debt restructuring or default. “Issue interlinkages” and political bargaining gave external creditors an indirect voice in the political process. Indeed, as the next few pages will also show, Ireland’s main trade partners are also its main creditor countries. Moreover, 40% of Irish corporate tax receipts are paid by US-owned companies (Economist Intelligence Unit, 2008) and generally the benefits from external interaction are diffused across the Irish population: 46% of manufacturing jobs and 27% of service sector jobs are in foreign affiliates (OECD, 2010). This ensures a fairly broad-based consensus across the economy in support of policies aimed at protecting external interests<sup>181</sup>. It is telling that the Irish government maintained the 12.5% corporate tax rate, a key policy measure to attract and retain foreign business, even in the face of important fiscal tightening elsewhere in the economy, and vehemently defended it when

<sup>181</sup> This commonality of interests also helps to explain the low level of domestic socio-political contestation highlighted in Section 6.3.2

European partners tried to impose an increase in corporate taxes as a condition for the EFSF loan.

These external considerations contributed to motivating Ireland's resulting endeavours to maintain credibility vis-à-vis external creditors and EU institutions during the debt crisis. This in turn led to additional public finance consolidation plans, to an attempt at transparency with regard to the magnitude of the banking sector issues and their likely impact on public finances, to an ongoing collaboration with the relevant EU institutions, and to frequent and relatively timely communication with the markets. This attitude appeared to help in reassuring markets during the first stages of the crisis, although it lost some traction once the bond sell-off accelerated.

Meanwhile, because of its high level of integration, the size of the financial system, and the very large size of its gross external debt relative to GDP (1019% of GDP in 2010)<sup>182</sup>, Ireland was more important for the rest of the global economy than its relatively small GDP and GNP, as well as its population, would have suggested.

For a start, the EMU and international banks were much more exposed to Ireland than to Greece by the time of the sovereign debt crisis. Figure 6.3.3-9 summarises the magnitude and country composition of bank exposures to Ireland. This includes claims on banks and the non-financial private sector as well as claims on the sovereign. The size of the overall exposure is almost double that in the case of Greece, in spite of Irish GDP being about two thirds of Greek.

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<sup>182</sup> External debt figures for Ireland need to be taken with some care as they are boosted by the large International Financial Centre.

Figure 6.3.3-9 Foreign bank claims on Ireland: country breakdown

September, 2010. Source: BIS, ultimate risk basis

	<b>Euro billions</b>	<b>% of creditor country GDP</b>
<b>Germany</b>	114.1	4.7%
<b>France</b>	33.1	1.7%
<b>Belgium</b>	22.1	6.4%
<b>Netherlands</b>	14.8	2.6%
<b>Italy</b>	11.3	0.7%
<b>Spain</b>	9.6	0.9%
<b>Portugal</b>	3.0	1.7%
<b>Austria</b>	2.4	0.8%
<b>Greece</b>	0.5	0.2%
<b>Euro area*</b>	211.0	2.5%
<b>UK</b>	118.5	7.1%
<b>US</b>	44.4	0.4%
<b>Japan</b>	15.6	0.4%
<b>Switzerland</b>	12.6	3.2%
<b>Canada</b>	3.8	0.3%
<b>Sweden</b>	3.0	0.9%
<b>Australia</b>	2.9	0.3%
<b>Non Euro area*</b>	200.8	1.0%
<b>Total**</b>	417	1.5%

\*Euro area and non Euro area are sum of the countries indicated.

\*\*Total includes residual reporting countries

Regarding the country composition of bank claims on Ireland, two main messages emerge from the data:

1. Among EMU banks, German banks were the most exposed to Irish debt in absolute terms, adding an important incentive to the key source of funding for EMU bail-outs. The Netherlands, normally a crucial ally in Germany's austerity drive, also had a significant exposure in GDP-adjusted terms. France, in contrast, was the largest overall creditor of Greece.
2. Claims from non-EMU countries are larger than EMU country claims in absolute terms. Not surprisingly given historical links, geographical proximity and the trade links shown above, the UK stood out as the largest overall creditor. The nationalised UK bank Royal Bank of Scotland (RBS) owned Ulster Bank, one of Ireland's 'big four' banks, and was by far the most exposed foreign bank to Irish sovereign debt at the time of the European bank stress tests published in July 2010, with a reported total of 5.1 billion euros. This was potentially a major headache for the UK government.

The financial and trade exposures so far described clearly highlight how Ireland had a much greater importance than Greece for some of the major European and global economies. However, besides the specific case of RBS, the figures leave an impression of asymmetrically much greater importance of the rest of the world for the small and open Irish economy than vice versa. The Irish problem carried much greater indirect weight in European and global policy-makers' considerations due to fears of international financial contagion. The Irish crisis carried significant systemic risk: a default in the intertwined system of Irish sovereign and bank debt had the potential to significantly damage an already impaired global financial system. Other vulnerable European banks would be affected, with the Spanish banking sector first in the firing line, creating an unstoppable chain of sovereign and bank defaults across the continent, and possibly on the other side of the Atlantic as well.

In this light, it is not surprising that EU partners and the IMF did not need much convincing to provide rescue funds for Ireland. Additionally, Irish policymakers and EMU partners managed to collaborate quite swiftly, when compared to the Greek struggles. The Irish

sovereign demonstrated capacity and willingness to deliver fiscal consolidation and generally stick to plans agreed with EMU partners and this helped to ensure collaboration<sup>183</sup>: it ensured EU and ECB endorsement for its adjustment plans and facilitated agreement on the conditionality of the rescue loan with an ambitious four-year plan. Press reports suggest that the ECB started considering using the EFSF to support Ireland as soon as the facility became operational in late September 2010. The dialectic of external partners trying to persuade Irish policymakers to accept external aid and Ireland reluctantly accepting is an interesting reflection of how intertwined the nature of interests on both sides had become, as well as of the power of persuasion held by external actors vis-à-vis the Irish government.

The higher level of proximity of Ireland to its creditors, as compared to the Greek situation, helps to explain the more collaborative attitude of both external and domestic actors during the sovereign debt crisis, which contributed to its relatively quicker resolution. Disentangling the direct effect of creditor/debtor proximity from other factors impacting Irish bond spreads during the sovereign debt crisis is not always possible. That said, bond markets appeared to recognise at least some of that international political economy dynamic, since they started to calm down as soon as evidence of an external push to access aid was accompanied even by vague Irish statements of ongoing collaboration, while they had treated similar statements issued during the Greek sovereign debt crisis with much greater scepticism. On top of EMU country interests, the sizeable exposure of UK banks and the interests of US multinationals provided strong incentives for the international community as a whole to favour external support for Ireland<sup>184</sup>. The important role played by external economic and financial links in the bail-out decision is also shown by the UK

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<sup>183</sup> While the row over the corporate tax rate and the ECB appear to contradict the notion of greater proximity between guarantor and crisis country, they were still limited to specific issues and differing views were eventually put aside to ensure collaboration on the crucial points.

<sup>184</sup> While we cannot verify or further examine the claim in the context of this thesis, it is interesting to note Cooper's (2011) claims that in a number of instances the US acted behind the scenes to encourage European policymakers in the direction of a speedy Irish bail-out.

contribution to the Irish rescue package<sup>185</sup>, while only EMU countries had provided bilateral loans in Greece's rescue.

Integrating an overall assessment of Ireland's position, a comprehensive reading of the narrative in Section 6.2 and a comparison with the Greek event study suggest that the higher level of economic, financial and ideological proximity of Ireland to its main creditors was positive for Irish sovereign credibility in bond markets during the sovereign debt crisis, other factors being equal, and as compared with the Greek experience. These findings, along with the results of the Greek event study, provide support for the prediction of hypothesis 3.2.

As briefly mentioned above, in addition to the role of economic and financial interlinkages, the EMU institutional backdrop was also more favourable to a quicker resolution at the time of the Irish crisis than when Greece was first hit. In fact, in the intervening period, some progress had been made to develop institutions and procedures to deal with crises at the EMU level. While Greece had needed to obtain official financing on the basis of protracted bilateral negotiations with EMU partners, a centralised fund, the EFSF, was now available to provide external assistance if needed, and the ECB was now open to buying peripheral bonds in secondary markets through its Securities Markets Programme when needed to stabilise markets. The activation of the EFSF only required Eurogroup approval (on top of IMF Board approval for the IMF part). This was much less problematic than ex novo bilateral political negotiations, since the notion itself of intra-EMU rescue transfers was not under discussion anymore and conditions for access were now regulated by the EFSF statute. The centralisation of decisions and negotiations on the rescue package removed the need to embark on extensive bilateral negotiations when it came to accessing external finances, reducing the potentially disruptive role of creditor country domestic politics. Accordingly, markets did not have to deal with conflicting signals from the international arena, and rapidly accepted that a rescue plan was in the pipeline as soon as the ECB and EMU partners started discussing the possibility in early November 2010.

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<sup>185</sup> Sweden and Denmark also contributed with bilateral loans.



## 6.4 THE ROLE OF POLITICS BEFORE 2008

As for Greece, we integrate the detailed event study in this chapter with some broader observations on the role of politics in influencing Irish bond spreads in the decade preceding the global financial crisis. This will allow us to both add some colour to the Irish experience and draw some conclusions from a comparison with developments in Greece in the same period.

For Ireland, the EMU experience started in 1999. As for the rest of the original 11 EMU member states, Ireland's interest rate convergence was completed during the 1990's, with 10-year government bond spreads to Germany having fallen to just 20 basis points by January 1999. From then onwards, Irish bond spreads remained on a further mild downward trend until 2005, when Irish 10-year interest rates actually fell below the German benchmark rate and spreads turned slightly negative for about a year. Spreads bottomed at the end of 2005 at -5 basis points, and remained closed to zero until mid-2007, when first a mild and then an abrupt upswing took place, initially a consequence of the global financial crisis and subsequently more specifically the Irish banking crisis<sup>186</sup>.

The observations made in section 5.4 on the existing large-n studies covering the first decade of EMU apply also here: the strongest common thread is the finding that, in the context of a limited overall impact of domestic fundamentals, public budget deficit and debt levels were the main drivers of intra-EMU bond spreads. The low levels of budget deficits and debt during the period did indeed translate into Ireland's spreads remaining among the lowest in the region up to 2007. Also, the volatility in bond spreads was extremely low, with spreads hovering within a 35 basis points band for eight years.

In contrast to the Greek case, the S-score and the M-score analysis for Ireland did not indicate a major under-pricing of country risk in the first few years of EMU, as the strong economic performance translated into very healthy public finances. Instead, the "market

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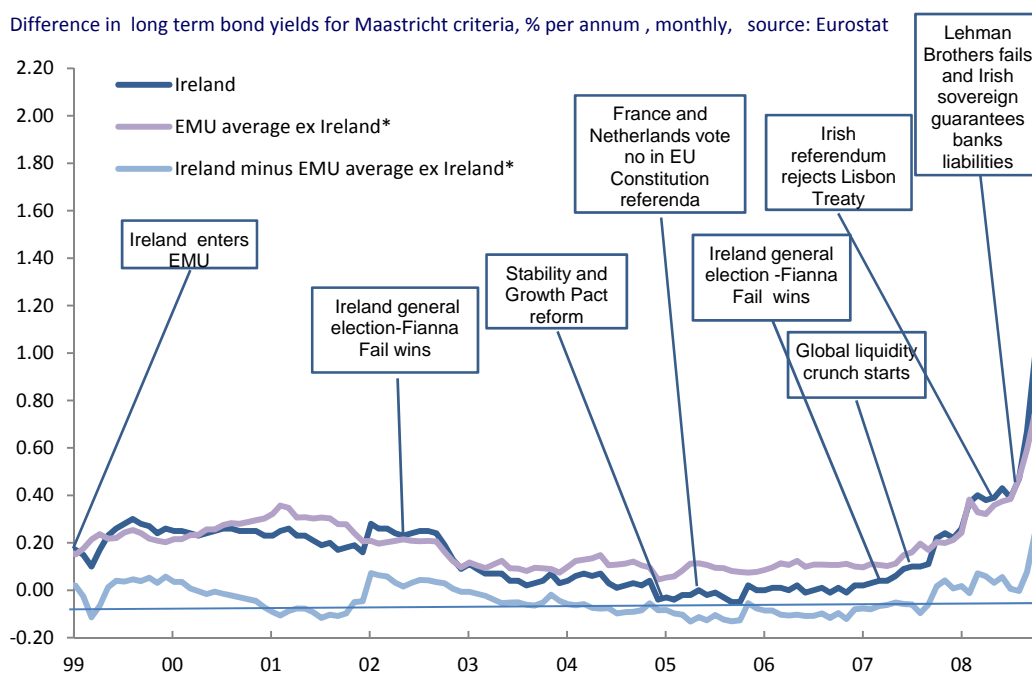
<sup>186</sup> The issue of how what was originally a banking crisis ended up affecting sovereign risk premia is covered in earlier sections of this chapter.

miss” was concentrated in the latter part of the period, when government bond prices failed to factor in the increasing imbalances in the private sector<sup>187</sup>.

Against this broader backdrop, we investigate here a potential role for domestic and international political economy factors in determining Irish bond spreads in 1999-2007. To this aim, we use the same the methodology that we used for the case of Greece, described in section 5.4. We consider the same key European political economy developments, in addition to identifying the key domestic political events.

Figure 6.4.1 illustrates Irish 10-year government bond spreads to Germany during the period 1999-2008. It also shows developments in the average of all Euro area bond spreads excluding Ireland and the difference between Ireland and the average of the rest of the Euro area. Finally, it highlights the main events in Irish domestic politics and European political economy backdrop over the period.

**Figure 6.4-1 Government bond spreads and key events**



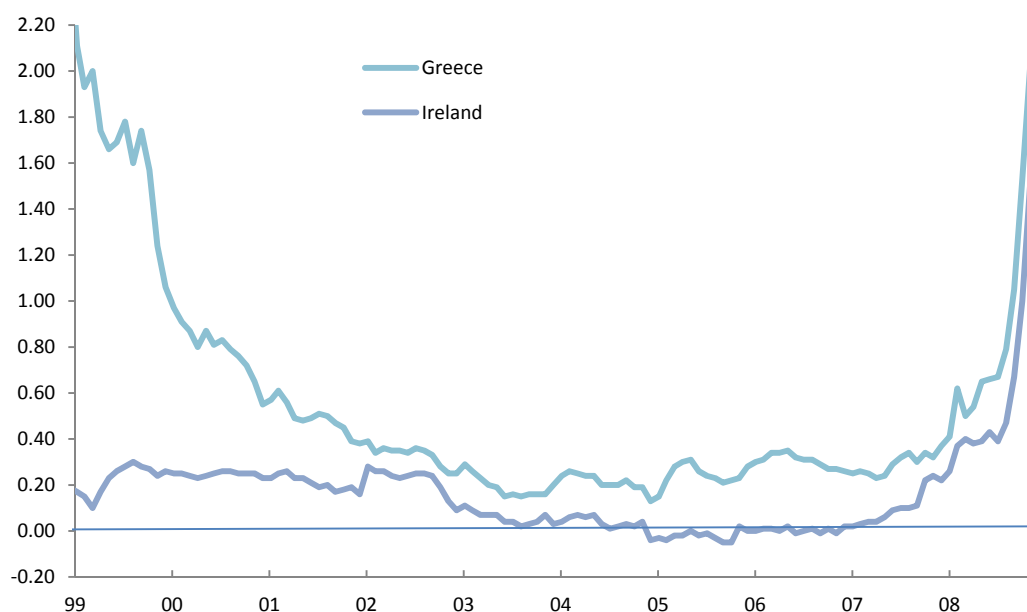
\* Also excludes Greece in 1999-2000

<sup>187</sup> In addition to the material presented earlier on in this chapter, sections 4.4.2 and 4.4.3 describe Ireland’s macro economy backdrop and develop the mentioned summary indicators.

The extremely low levels of spreads and volatility make it even harder than for Greece to identify specific drivers of changes in risk premia. The issue is complicated by the low level of liquidity of the Irish bond markets in 1999-2007<sup>188</sup>, as this may have exacerbated moves independent of fundamental considerations. That said, we can make a few observations based on the broader trends over the period, also in comparison to the Greek experience. Figure 6.4-2 provides a direct comparison of 10-year government bond spreads in Greece and Ireland between 1999 and 2008.

**Figure 6.4-2 Government bond spreads in Greece and Ireland**

Difference in long term bond yields for Maastricht criteria, % per annum, monthly, source: Eurostat



As in the case of Greece, Ireland joined in the general mild downtrend in Euro area bond spreads between EMU entry and the end of 2003. As seen in section 5.4, this could be attributed to both sides of the equation, as the performance of the peripheral economies and their public finances was perceived to be improving relatively to Germany. However, while for Greece the downtrend came to an end in 2004, in Ireland it continued until the end of 2005, with spreads to Germany actually turning slightly negative.

<sup>188</sup> The low level of public debt translated into a relatively small market for Irish long term government securities: outstanding long term debt was worth around 35 billion euros on average in 1999-2007 (Killian et al.00, 2011).

Indeed the Irish public deficit and debt numbers continued to improve up to 2006 - when the country reached a budget surplus of 2.6% of GDP and the debt was as low as 24.7% of GDP -, even as imbalances were starting to build in the private sector. Moreover, Ireland did not suffer a hit to the credibility of its statistics of the type experienced by Greece. Figure 6.4-3 compares developments in the key Irish and German macro-indicators in the period 1999-2007.

**Figure 6.4-3 Ireland and Germany macro-data in 1999-2007**

Source: Eurostat, data as % of GDP, unless otherwise indicated

	<u>Ireland</u>		<u>Germany</u>	
	1999-2003	2004-2007	1999-2003	2004-2007
<b>Public Budget Balance (current data)</b>	1.7	1.5	-2.3	-2.1
<b>Public Budget Debt</b>	36.7	26.5	61.1	67.1
<b>Consumer price inflation (% ch y/y)</b>	4.1	2.5	1.3	2
<b>Current Account Balance</b>	-0.4	-3.2	0.2	5.9
<b>Real GDP growth (% ch y/y)</b>	7.3	5.3	1.2	2.2
<b>Private Sector Debt (ex financials)</b>	152.4	196	132.8	126.6

Importantly, Irish bond spreads continued to decline or remained at extremely low levels even after the definitive loss of credibility of the Stability and Growth Pact in 2005 and the French and Dutch no to the European Constitution. This development reinforces the impression that the credibility gains from strong European institutions are more important for those countries that are perceived to be weaker.

Meanwhile, in our review we did not find evidence of a direct impact from Ireland's two general elections in the period, which however did not bring a change in the government's leading party. Fianna Fail was in power for twelve years, covering the entire period under consideration in this section. In this perspective, Ireland's fairly developed political checks and balances and cohesive social context, and therefore the absence of disruptive political events, may be considered to have contributed to the Irish government's bond market excellent performance up to 2007. As we saw in section 5.4, it is not always possible to clearly distinguish between the direct market impact of political economy features and their implicit effect through observable policy outcomes (the public debt and deficit in particular in our case), particularly in the context of very low spreads and volatility.

An additional observation on political economy events concerns the June 2008 Irish referendum result that rejected the Lisbon treaty. While given the brewing turbulence related to the banking crisis the direct impact on Irish bond spreads was not significant, there was some coverage in research publications in financial markets; in June 2008, JPMorgan observed with regard to the Euro area outlook: “The Irish vote and the recent macro data suggests that the political and macroeconomic outlook are both rocky” (JPMorgan, 2008).

Overall, the picture that we obtain putting together the evidence collected on the Greek and Irish experiences suggests that government bond markets were not completely indifferent to political factors before 2008, but that the direct impact political factors on the evolution of intra-Euro area bond spread was much smaller in the pre-crisis period than during the sovereign debt crisis. Indeed, the direct impact on spreads of political developments pales compared to the much larger moves caused during the sovereign debt crisis. In turn, this limited role for political factors was not unrelated to the prevailing finding in the literature that fundamentals in general played only a modest role in determining bond spreads during that period, as they acted in conjunction with international risk aversion and liquidity factors. Indeed, looking at the broader impact of EMU creation on bond spreads, our analysis confirms that while inflation risk differentials faded as countries entered EMU, the offsetting re-assessment of credit risk differentials that appeared to be missing up to 2007 eventually took place from 2008 onwards<sup>189</sup>.

The much stronger market reaction of to political factors during the sovereign debt crisis than in the first years of EMU provides further support to the characterization of market behaviour that forms the foundation of our theoretical framework: investors adapt their valuation methodologies to the challenges posed by the particular environmental conditions. The apparently stronger impact of changes in the European political economy backdrop in the pre-crisis period in Greece than in Ireland also provides further evidence supporting the view that market scrutiny on political factors will tend to increase to the extent that perceived creditworthiness declines.

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<sup>189</sup> This is noted also by other authors, for example Buiter and Rahbari, 2010.

## 6.5 CONCLUSION

The analysis of the Irish sovereign debt crisis in this chapter integrates the results obtained in the Greek event study, bringing an additional perspective from both within-case analysis and cross-country comparison.

In the case of Ireland, the banking crisis and its consequences in terms of bail-out costs and economic damage clearly dominate explanations of the sovereign debt crisis. Indeed, the banking sector acts as the “elephant in the room” when the origins and movers of markets’ concerns about sovereign creditworthiness are analysed. While this contributes significantly to clouding the identification and analysis of complementary factors, our analysis shows that the domestic and international political economy context contributed to defining the profile of the crisis, given the underlying financial and economic issues.

A first key finding from the perspective of our theoretical framework is that, as in the case of Greece, markets failed to anticipate the crisis or to provide a “warning signal”. Admittedly the market “miss” was more subtle than in Greece, as it concerned mostly the link between public and private finances, rather than the situation of public finances directly. In particular, bond markets failed to recognise the implications of banking sector’s fragilities for sovereign creditworthiness, as the analysis of the two sectors was kept separate. It was not until the analysis of the sovereign and banking sectors were re-connected that government bond markets started to price in banking sector risk more fully. Once investors recognised that the sovereign had assumed a potentially unsustainable burden, they also stepped up their monitoring of the domestic and international political backdrop in order to gauge the implications of these for public debt repayment prospects.

In particular, we identified a role for domestic socio-political system in influencing sovereign risk premia during the crisis. Based on within-case event tracing and a comparison with the Greek event study, we found that differences in the formal veto-player structure were not enough to explain differences in sovereign credibility. Instead, we showed that Ireland’s stronger socio-political cohesion contributes to explaining why the crisis was less severe overall than in Greece. The Irish social and political landscape features exceptionally low cleavages along the Right-Left continuum; the cohesive attitude on the

part of both civil society and opposition parties reinforced the credibility of government decisions.

Moreover, the Irish event study provides particularly powerful evidence of the importance of external considerations for a small open economy, as well as of how closer creditor/debtor links can be beneficial to a sovereign's market credibility during a crisis. On the one hand, the high dependence of Irish economic prosperity on international trade and investment flows helps to explain the priority it assigns to preserving credibility vis-à-vis external creditors. On the other hand, the risks of contagion through the banking system and the higher exposure of both European and US businesses to the country's economy created significant concerns for creditor sovereigns. As a result, the natural debtor/creditor dialectic in the default/consolidation/bail-out decision was reversed, with external creditors pushing reluctant Irish policymakers to accept external help.

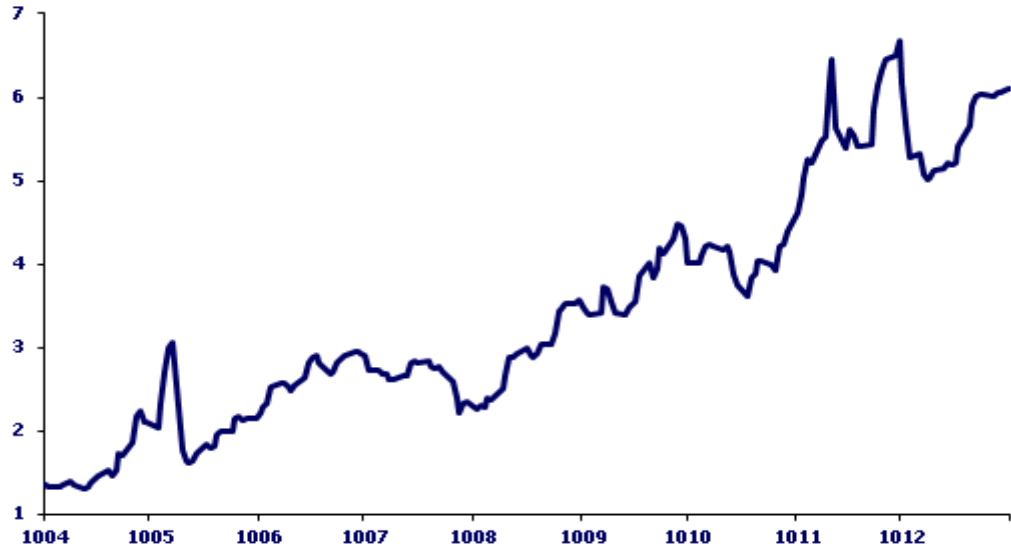
In that process, we identified the ECB as occupying the key external veto point, a reflection of both the power and the risks generated by its role of liquidity life-line for ailing Irish banks. Indeed, comparing the Greek and Irish experiences, we found two features shared by external de-facto veto players: first, that of being important creditors; and second, that of holding resources that could be determinant for the fate of the debtor sovereign.

Overall, our empirical tests – prepared and executed in Chapters 4, 5 and 6 - provide considerable validation of the hypothesis developed in our theoretical framework, although the complexity of the issues and variables under consideration leave room for additional study in future endeavours. Chapter 7 will integrate the empirical findings and theoretical discussions, highlighting the key results of the thesis, as well as remaining uncertainties and ideas for future research.

## 6.6 MARKET DATA<sup>190</sup>

### Ireland 10-year Government Bond Spread to Germany

% per annum, daily data



### Ireland 10-year Government Bond Yield

% per annum, daily data

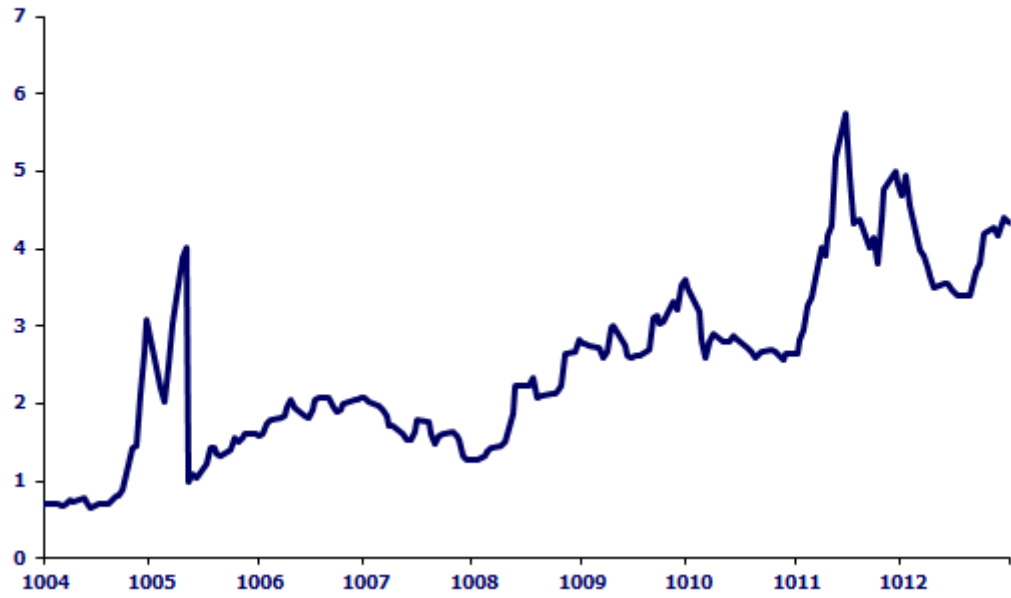


<sup>190</sup>Source: Bloomberg



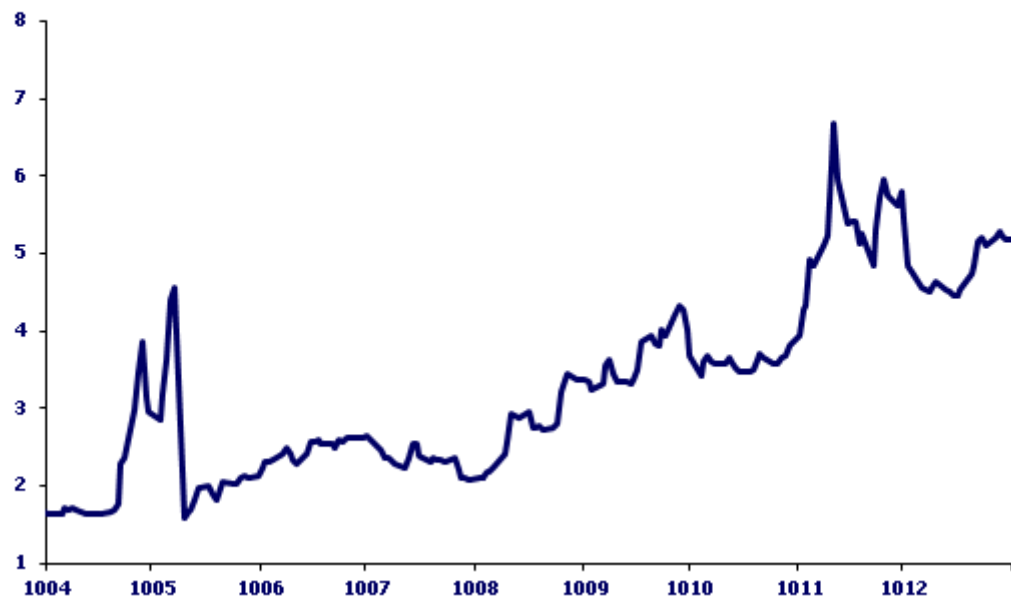
### Ireland 2-year Government Bond Spread to Germany

% per annum, daily data



### Ireland 2-year Government Bond Yield

% per annum, daily data



### Ireland 5-yr CDS

basis points, daily data



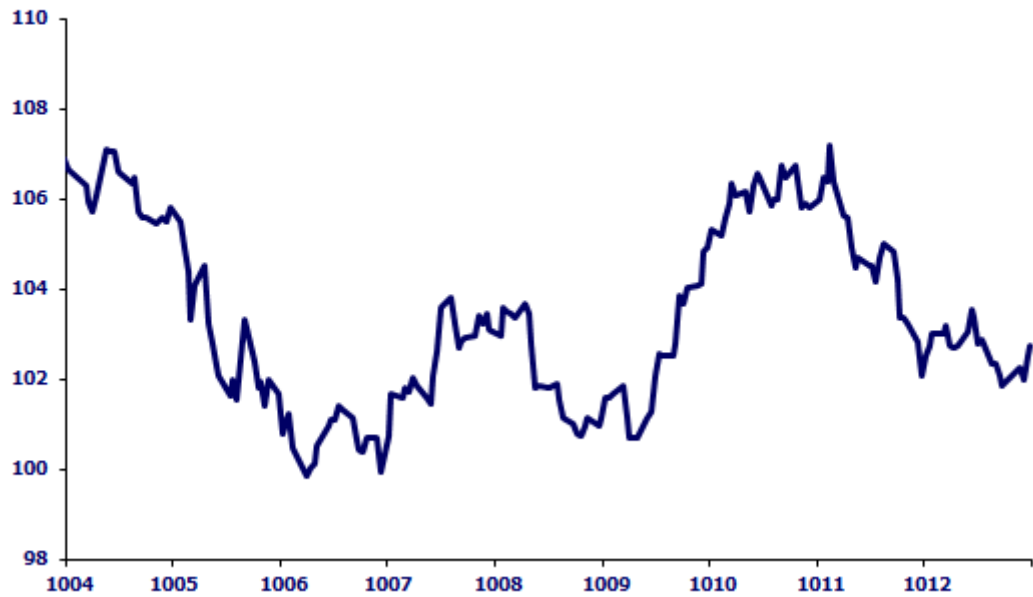
### Euro/Dollar Exchange Rate

daily data



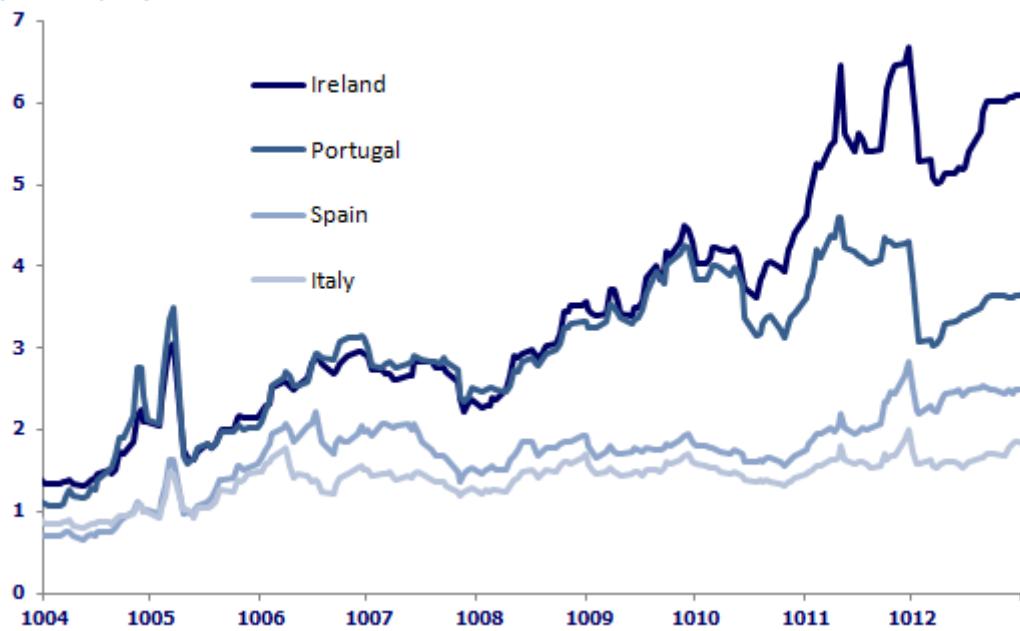
### Euro: Trade-weighted Exchange Rate

ECB index, daily data



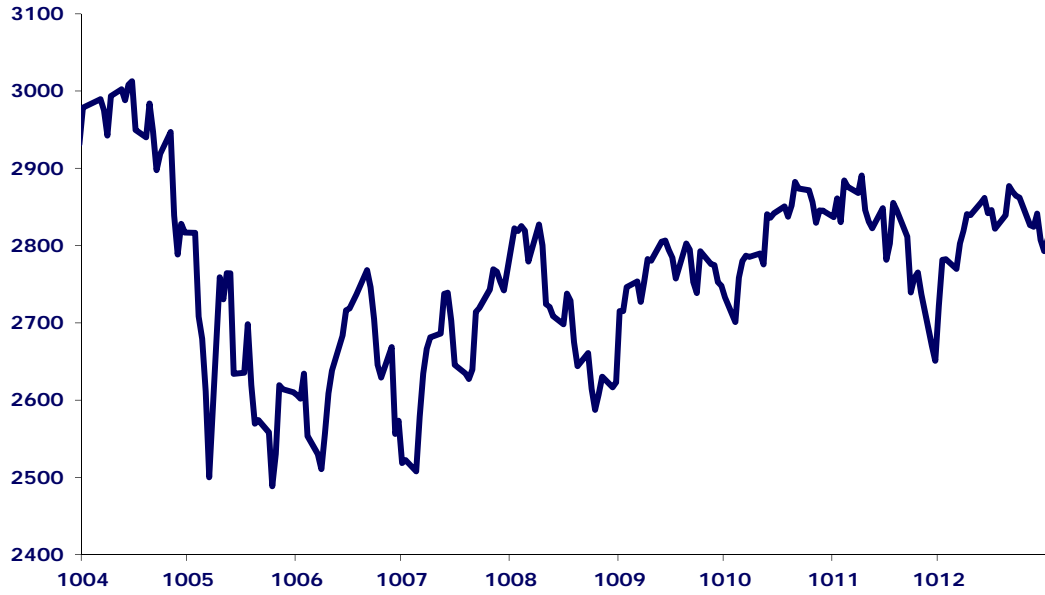
### 10-year Government Bond Spread to Germany

% per annum, daily data



### Euro- Stoxx 50 Equity Index

ECB index, daily data



### Ireland Stock Exchange Equity Index

ECB index, daily data



### Ireland Stock Exchange Financials Equity Index

ECB index, daily data



## Chapter 7

### *Conclusion*

#### **7.1 INTRODUCTION**

This thesis contributes to a better understanding of how international financial markets price sovereign risk in developed democracies, and especially in the developed democracies of the Euro area. In particular, it identifies and highlights the influence of political economy factors in driving investors' assessment of sovereign risk. Additionally, it extends the focus from the domestic sphere to include international factors. From the empirical perspective, it provides a timely look at one of the main events in the financial history of the last few decades, the Euro area sovereign debt crisis. The increase in sovereign risk perceptions in many advanced economies in the aftermath of the 2008 global financial crisis and the Euro area sovereign debt crisis provided a strong real-life motivation for engaging with these issues, for both positive and normative purposes.

In this research project, we investigated these central themes via both theoretical and empirical analysis. First, we developed a theoretical framework to identify a set of political economy factors influencing sovereign risk perceptions in developed democracies. Then, we tested our theoretical hypotheses against empirical evidence from two event studies, the Greek and Irish sovereign debt crises.

Greece and Ireland were the first two countries to be hit by the Euro area sovereign debt crisis: they both suffered from investor flight out of their government bonds in 2010 and consequently needed to access external financial assistance, in May and November of that year respectively. However, the severity and length of the sovereign debt crisis was significantly greater in Greece than in Ireland. Combining our theoretical approach with in-

depth and comparative analysis of the two event studies, we showed that domestic and international political economy factors help to explain the difference.

In particular, the Greek and Irish crisis episodes provide empirical support for the three key arguments of this thesis. First, investment analysis evolves over time, so static categorisations of countries, for example as either developed democracies or emerging markets, may not hold in the long term. Second, the domestic socio-political system affects sovereign risk perceptions in developed democracies in crisis periods. Third, external de-facto veto players and the degree of proximity between sovereign borrower and international creditors are also significant for sovereign credibility in these circumstances. While additional empirical data would be beneficial, in order to further consolidate the validity of these claims in the future, the evidence gathered within the context of this research project provides a solid foundation.

Our theory was elaborated and tested in a context of elevated causal complexity. Sovereign debt crises are very complex phenomena, where economic, financial and political drivers interact to shape investor views of sovereign creditworthiness. Political factors need to be seen as contributory elements to a sovereign debt crisis, rather than as exclusive drivers, and the exact contribution of each individual factor is very hard to disentangle and quantify. In addition, our research project dealt with a fast evolving landscape. While this study has the added value of being one of the timeliest academic analysis of the Euro area sovereign debt crisis, this timeliness also implied added difficulty in formulating theoretical expectations and carrying out empirical verifications. As a result, considerable challenges, including from the methodological perspective, needed to be faced along the way. These efforts led to a set of key results that provide both a contribution to ongoing debates and a framework for future analysis and systematic comparison.

This final chapter draws the key conclusions of the thesis, and is comprised of five sections. Section 7.2 pulls together the results of the study, integrating the empirical findings from the two event studies with the theoretical framework. Section 7.3 discusses how our findings could apply to other Euro area sovereign borrowers. Section 7.4 highlights the key contributions to the literature and proposes an agenda for future research, while Section 7.5 derives some implications for policy. Finally, Section 7.6 contains our final remarks.

## 7.2 KEY FINDINGS AND LITERATURE CONTRIBUTIONS

Greece and Ireland were the first two Euro area countries to be hit by the sovereign debt crisis. While the crisis was clearly a dramatic event for both countries, the Greek crisis turned out to be longer and more severe than the Irish crisis<sup>191</sup>. Differences in the intensity and length of the crises were reflected in government bond yields and CDS spreads: Greek bond yields and CDS spreads reached much higher levels than Ireland's throughout the period, spending the last two years at distressed levels. Irish bond yields and CDS spreads also surged in the run-up to the external rescue and continued to rise for a period after that, but they never reached the Greek extremes and declined towards more normal levels from mid-2011.

Variations in macroeconomic and financial conditions at the onset of the crisis did not appear to be large enough to justify such large differences in crisis outcomes. On the one hand, Greece had accumulated a high public debt over the years and was plagued by a large twin deficit problem, as public finances mismanagement and a sharp loss in competitiveness had led to high public sector and current account deficits. On the other hand, Ireland was suffering from the consequences of a huge banking crisis, while contagion from the global financial crisis had mostly spared the Greek banking system, and from a very sharp reversal in economic performance, falling from its status of 'Celtic tiger' to a deeply recessionary environment. Indeed, for a period in 2008-2009, bond markets appeared uncertain about which of the two countries was in the worst shape, and for a period Irish bond spreads were the highest in the region. In the event, Greece was first to be hit by the wrath of the market, in early 2010, and the investor flight proved a much longer and more severe affair: two external rescue packages in two years were not sufficient to restore public debt sustainability and an outright debt restructuring became necessary. The Irish sovereign also suffered a drying-up of market financing and accessed external help in late 2010, but less than two years later it was able to return to the markets, issuing 5.2 billion euros worth of five- and eight-year bonds in July 2012.

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<sup>191</sup> As noted in Chapter 4, we refer here to the sovereign debt crisis specifically, while not also including the broader effects of the banking and crisis.



The main achievement of this thesis is to combine an original theoretical approach with detailed event tracing to show that domestic and international political economy factors played a role in determining the differences in market attitudes described above. Broadly, it provides a framework, applicable to developed democracies, for systematically analysing the impact of a country's domestic political system and international positioning on sovereign credibility. This is a step forward relative to the existing literature on the drivers of sovereign risk premia in a number of respects: the rest of this section illustrates how the main findings of this study contribute to three broad literature debates in the international political economy literature and one debate more specific to the analysis of Europe and the monetary union.

First, in the debate concerning the nature of market constraints on sovereign borrowers, our thesis moves beyond Mosley's (2003) static categorisation of countries as either developed democracies or emerging markets as a key determinant of government bond valuation models, showing in particular that shocks that modify perceptions concerning the saliency of default risk can lead investors to broaden the set of variables under consideration in developed democracies. In both the Greek and the Irish episodes, investors deepened and broadened the scope of their analysis when they started to seriously worry about debt sustainability. Bond markets had failed to act as disciplining devices on government policies for a number of years, as the build-up of imbalances at the public and/or private sector level was overlooked, and both fundamental reasons and behavioural factors appeared to play a role in the financial markets' turn from complacency to 'crisis mode'.

The Greek event study provides the most direct evidence of markets' failure, even for long periods of time, to function as a disciplining device. Greece's credit risk premium was very low between 2001 and mid-2009: markets did not provide any 'early-signal' of the growth of public and external imbalances, or of the chronic structural weaknesses that persisted in the economic and political system. Then, in late 2009, the combination of a credibility-shattering discovery that the Greek government had lied in past public finances reporting, the first default of a quasi-sovereign borrower previously considered highly solvent (Dubai World), and a rating downgrade that put Greek bonds at risk of exclusion as collateral in

ECB repo operations acted as a 'wake-up' call<sup>192</sup>. 'Anchoring' effects induced investors to re-discover the analysis of underlying fundamentals, update their valuation models and start differentiating between Greece's sovereign bonds and those of other Euro area borrowers. The 'herding' behaviour that ensued as 'first-mover' investors were followed by the rest of the market in updating their models and dramatically revising their Greek outlooks, likely contributed to exacerbating the move from 'normal' to 'crisis' conditions.

In the Irish case, the markets' temporary 'miss' was more subtle, as Irish public finances were indeed in excellent shape until the banking crisis in 2008. Instead, investors appeared to disregard the build-up in 2005-2007 of a domestic credit bubble in the private sector (with implications for banks' balance sheet quality), and then reacted relatively mildly to the sovereign's assumption of large contingent liabilities, with the guarantees issued in September 2008 and the first bank recapitalizations in 2009. It was not until the second half of 2010 that investors appeared to recognise more fully the consequences for the sovereign of the 'credit risk transfer' from the banking sector, and to integrate banking sector weakness more fully into their sovereign creditworthiness analysis. Here, an increased focus on the banking sector troubles contributed to 'anchoring' market concerns in that direction.

The second literature branch where the findings of this thesis provide a significant contribution to the debate is that concerning the impact of domestic political institutions on sovereign credibility in financial markets: we move on from the traditional focus on emerging market countries, with an analysis of today's developed democracies. MacIntyre (2001) proposes a compromise between the claims of the 'credibility' literature and the

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<sup>192</sup> The events in late 2009 show how in Greece, as well as in Ireland, the ECB held significant "repo power". However, while the Irish sovereign debt crisis was a direct consequence of the crisis in the country's large banking system, making bank financing and thus the role of the ECB liquidity unequivocally crucial to containing and managing the crisis, the Greek sovereign debt crisis was more directly connected to poor public finances and their sustainability, making crisis management more crucially connected to the possibility of intra-regional transfers at a time when a region-wide financial support scheme was still lacking. Thus, we identify Germany as the holder of the key external veto in the Greek crisis, while we highlight the role of ECB in the Irish case. Section 5.3.3, explains in more detail the motivations for focussing on Germany as key external veto player in the Greek episode, while section 6.3.3 illustrates the particularly strong sources of ECB veto power in the Irish crisis.

implications of the 'consolidation' literature, applied specifically to emerging markets: financial markets dislike excesses both in policy volatility and in policy rigidity, and thus prefer intermediate veto-player configurations. At the time of the sovereign debt crises, Greece and Ireland were located near opposite ends of the spectrum of developed democracies with regard to formal veto-player constellations. However, when compared with emerging markets, they remained within the 'intermediate' part of the spectrum, where the extremes are occupied by autarchies and highly fragmented systems. In a result not inconsistent with MacIntyre's claim, when comparing developments during the Greek and Irish sovereign debt crisis we find that the formal veto-player constellation is not sufficient to explain differences in market attitudes.

Instead, we find that the degree of socio-political contestation and the interaction between the number of formal veto players and the degree of socio-political contestation contribute to explaining differences in sovereign credibility in the two crises. This is in line with our theoretical prediction that markets would consider the role of socio-political contestation in the broader political system when assessing the creditworthiness of a developed democracy under fiscal stress. On the one hand, Greece has an ideological system which is strongly polarised on the Left-Right continuum. This was apparent in what was by far the highest incidence of general strikes in Western Europe over the last thirty years and resulted in a high level of political and social contestation of government policy decisions during the sovereign debt crisis. The bond market mapping exercise in our event study clearly identified popular protests, and in general an adversarial attitude of both opposition parties and society as a whole, as reducing the impact and credibility of the government's statements and policy announcements.

Ireland was at the opposite end of the spectrum in terms of social cohesion. The Irish social and political landscape features exceptionally low cleavages along the Left-Right continuum, which resulted in a total absence of general strikes in the thirty years before the beginning of the crisis. As a result, during the sovereign debt crisis, socio-political contestation and protests against government policies in Ireland were minor, particularly when compared to those in Greece. The cohesive attitude on the part of both civil society and opposition parties reinforced the credibility of the government decisions in financial markets. Finally, a comparison of the socio-political landscape in Greece and in Ireland

supports our claim that, when assessing a sovereign perceived as possibly having to face a default decision, bond markets will prefer a combination of higher institutional checks and balances and lower socio-political contestation, and that they most dislike a combination of lower institutional checks and balances and higher socio-political contestation.

An additional step forward of our thesis relative to the existing literature is the extension of the analysis of the drivers of sovereign risk perceptions to include the role of international political economy factors, integrating the so far mostly separate literature coverage of domestic and international sources of sovereign credibility. In particular, we extend the veto-player analysis to the international sphere, and find that the preferences of external de-facto veto players impacted sovereign credibility during both the Greek and the Irish sovereign debt crises. Introducing external bail-out to the menu of options available to a sovereign borrower in difficulty empowers strong external creditors and/or potential rescuers. Comparing the Greek and Irish episodes, we found that external de-facto veto players share two features: that of being important creditors and that of holding resources that could be determinant for the fate of the debtor sovereign. In the Greek episode, Germany held the key external veto in the bail-out negotiations, and as a result fluctuations in that country's attitudes towards providing financial assistance, and the German domestic politics behind this, impacted Greek sovereign risk premia during the crisis. In the Irish event study, we identified the ECB as an external de-facto veto player. The central bank was empowered in particular by its role as liquidity lifeline for Irish (and Euro area) banks and played a key role in persuading Irish policymakers to access external help.

Moreover, the comparison between the Greek and Irish episodes highlights how Ireland's much greater 'proximity' not only to the rest of the EMU, but also to the UK and the US, contributed to a faster resolution of the most acute phase of the crisis. These results indirectly support both the "repeat play" and the "issue linkage" explanations of sovereign debt (Eaton and Gersovitz, 1981, and Bulow and Rogoff, 1989). Meanwhile, they add an additional perspective to the research on the role of IMF and US interests in the resolution of sovereign debt crises in emerging markets (see, for example, Woods, 2003), opening the analysis to a context where Germany and European institutions played a role similar to that typically played by the US and the IMF in emerging markets.

Developments during the Irish sovereign debt crisis provided strong evidence of the importance of external influences and considerations for a small, very open economy and how these can impact sovereign credibility in financial markets. The high dependence of Irish economic prosperity on international trade and investment flows helps to explain the priority it assigns to preserving credibility vis-à-vis external creditors. Meanwhile, the exposure of European and US banks and multinationals to Ireland, as well as the broader risks of contagion through the banking system, translated into higher interest on the part of external creditors in ensuring a successful resolution to the crisis and avoiding a sovereign debt default. Finally, Irish policymakers also demonstrated stronger ideological proximity than those in Greece to EMU partners and to the IMF institutions, particularly with regard to agreement on the economic management of the crisis and the swift implementation of adjustment plans.

Greece was at the opposite end of the spectrum in terms of trade and financial integration with the rest of the EMU and with the global economy, with a much smaller export sector and much lower inward foreign direct investment. Moreover, the relationship with EMU partners and with the IMF was at times adversarial, and ideological proximity with regard to crisis management and adjustment was much lower than in Ireland. This contributed to markets' doubting the country's motivation to undertake fiscal and structural adjustments and even its commitment to staying in the monetary union.

In addition to the contributions to broader international political economy debates described above, this thesis also adds a perspective to the branch of literature specifically concerned with the drivers of Euro area government bond spreads. As outlined in Chapter 2, this body of literature has grown significantly since the start of the crisis. Our contribution in this area is twofold. First, the evidence of a role for domestic and international political economy factors in influencing sovereign bond spreads in Greece and Ireland helps in understanding the reasons for some of the unexplained residuals in large-n estimates focussed on economic and financial variables (as noted, for example, by Sgherri and Zoli, 2009); broadly, it illustrates the need to extend the set of explanatory variables in these studies beyond the existing focus on economic and financial data. Second, in the broader debate concerning whether bond markets should be trusted as exclusive disciplining devices on government policy, the identification of their failure to sound alarm

bells on economic and fiscal imbalances as these were building up in Greece and in Ireland in the first ten years of EMU warns against relying on financial markets as fully efficient ‘vigilantes’.

### **7.3 APPLICATION TO OTHER EURO AREA SOVEREIGNS**

While our in-depth event study analysis brings considerable evidence in support of the theoretical hypotheses, a more definitive validation of the theory will require further verification on a broader sample size<sup>193</sup>. The next question from this perspective is how the framework would apply to other Euro area sovereigns in crisis conditions.

The experience of Portugal, which was the third economy to be affected by the Euro area sovereign debt crisis and to receive external financial assistance, is the one that can be compared most directly with those of Greece and Ireland. The crisis contagion subsequently reached Spain and Italy. Spain and Italy both saw large increases in government bond yields in 2011 and 2012, although they were both able to maintain access to private bond markets. A direct comparison of the cases of Spain and Italy with the experience in small peripheral economies would not be appropriate, but a preliminary look at developments across the two larger economies brings some interesting insights.

In this section, we briefly illustrate how our framework could apply to the crisis experience of Portugal, followed by a few remarks on Spain and Italy. Generally, the initial evidence from these additional episodes is broadly supportive of our key claims.

As mentioned above, the Portuguese experience is the one that can most directly be compared with those of Greece and Ireland. Portugal received an EFSF/IMF rescue package in May 2011, and has so far not required additional help. Like Greece and Ireland, it is a small economy within the Euro area, with comparable levels of bond market liquidity and a high share of foreign bond ownership at the start of the crisis.

Overall the sovereign debt crisis experience of Portugal falls in an intermediate position between those of Greece and Ireland. Government bond spreads and sovereign CDS prices

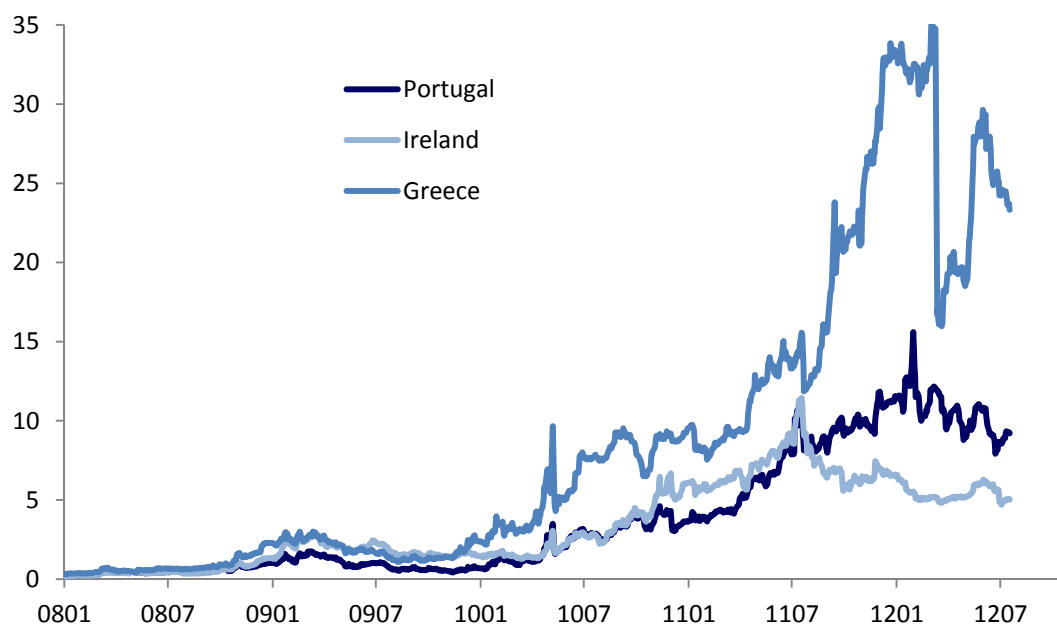
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<sup>193</sup> We will consider this issue in more detail in Section 7.4.

peaked at levels between those of Greece and Ireland in the last two years. Figure 7.3-1 compares the trajectories of ten-year government bond spreads of the three countries. Portugal's ten-year government bond yields started to rise in early 2010, but up to mid-2011 they remained the lowest among the three sovereigns. They moved above Irish yields from mid-2011 and have since remained above. Portugal's ten-year government bond spreads to Germany peaked in January 2012 at 14.6%, above the Irish 11.4% peak of July 2011, but well below the highs seen in Greece. They have been falling since the beginning of 2012.

**Figure 7.3-1 Ten-year government bond spreads to Germany: Portugal, Ireland, Greece**

% per annum, daily data, source: Bloomberg



Note: for Ireland, the nine-year benchmark bond replaces the ten-year benchmark bond from 12/10/2011 due to the absence of a benchmark for ten-year maturity.

By late 2010, Portugal had built up considerable macroeconomic and financial imbalances. For a decade, the country had suffered from a mixture of chronically stagnant GDP, poor public finance performance, as well as a sharp decline in competitiveness and increasing external financial dependence. Figure 7.3-3 at the end of this section compares some key economic indicators for Portugal, Greece and Ireland. As in Greece and Ireland, bond

markets had appeared unfazed by all of this for a number of years, but they turned around sharply in early 2011. Against the economic and financial backdrop described above, our political economy approach can contribute to explaining the relative trajectory of Portuguese sovereign risk premia.

The Portuguese political system presents a low number of institutional checks and balances, along with a relatively high level of socio-political cohesion. In the semi-presidential, unicameral Portuguese system, the executive holds most of the power, except in the case of a minority government, where the main opposition party can also act as an effective veto player, particularly in the event of 'cohabitation'<sup>194</sup>. Meanwhile, Portugal's socio-political polarisation and contestation are fairly low. The economic ideologies of the Centre-Right Social Democrats and the Centre-Left Socialists, the two main parties, display a relatively low degree of differentiation and have tended to converge towards the centre of the Left-Right spectrum in recent years (Royo, 2012). This low degree of political polarisation on the Left-Right dimension is reflected more broadly in Portuguese society, with typically a relatively low incidence of strikes and protests (Royo, 2012).

These features of the socio-political system emerged during the sovereign debt crisis. For much of the period leading up to the external rescue in May 2011, there was remarkable collaboration between the minority Socialist government and the main opposition party. The minority government received outright support from the Social Democrats for the most important adjustment plans approved during that period. In the event, the Social Democrats withdrew their support and an early election was held in June 2011. The Social Democrats gained a workable majority, in coalition with the smaller Popular Party, with a relatively smooth transition. Meanwhile, there were only limited episodes of social unrest,

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<sup>194</sup> In semi-presidential systems, cohabitation refers to the situation where the president belongs to a different party from the majority supporting the prime minister in parliament. Costa Lobo, Costa Pinto and Magalhães (2012) provide a detailed analysis of the varying position of veto point for the president depending on the type of majority in parliament.

The World Bank DPI assigns a CHECKS score of three to the minority government with "cohabitation" which was in place up to May-2011. When the government has an absolute majority and the President belongs to the same party, the World Bank DPI score falls further to 2.



particularly compared to the much more dramatic events seen in Greece and in neighbouring Spain.

In our theoretical framework, Portugal's combination of low institutional checks and balances and low socio-political contestation is one of the two intermediate configurations between Greece's combination of low institutional checks and balances and high socio-political contestation and Ireland's combination of fairly developed institutional checks and balances and low socio-political contestation. Given this intermediate configuration on the domestic political landscape, our theoretical framework, particularly hypothesis 2.3, anticipates a degree of severity of the sovereign debt crisis intermediate between the experiences of Greece and Ireland. This was indeed the case, as shown above.

Portugal can also be seen as occupying an intermediate position between Greece and Ireland on our international political economy proximity scale. While much less internationally oriented than Ireland, the share of exports going to the Euro area (about 60%)<sup>195</sup> is higher than that for Greece. Moreover, at the time of the crisis, the ideological proximity and collaboration between the Portuguese leadership and European counterparts was reinforced by the fact that both the presidency of the European Commission and the vice-presidency of the ECB were held by former Portuguese politicians. That said, strong links with Spain were probably the most important international political economy aspect boosting Portugal's external impact during the crisis. On the one hand, for Portugal, Spain is the most important trading partner, accounting for 25% of its exports and 30% of its imports<sup>196</sup>. On the other hand, Spain was the economy most exposed to Portugal<sup>197</sup>, at a time when Spain itself was generally recognised as the next 'weak link' in the Euro area crisis contagion process. This contributed to make containing the Portuguese crisis a priority not only for local policymakers, but also for Spanish leaders and for European and global partners concerned about the risk that the crisis might affect a much larger Euro area economy. As for the domestic side, also this intermediate position of Portugal on the international political economy proximity scale is consistent with the

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<sup>195</sup> Source: Eurostat data (2009)

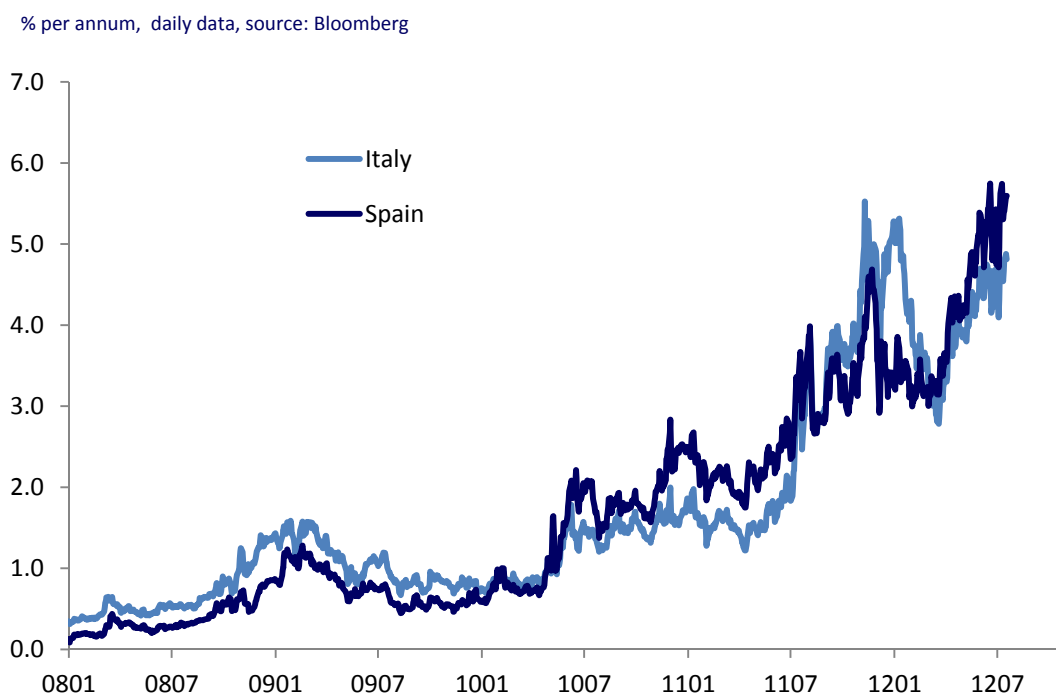
<sup>196</sup> Source: Eurostat data, 2009

<sup>197</sup> Spanish bank claims on Portugal were 65 billion euros by the end of 2010 (Source: BIS data).

observed an intermediate degree of crisis severity, supporting in particular hypothesis 3.2 of our theoretical framework.

Moving on to the experiences of Spain and Italy, as mentioned above, these two cases cannot be compared directly with developments in Greece, Ireland and Portugal, as they are much larger economies, with much more liquid government bond markets and much higher domestic bond ownership. That said, and given all our usual caveats concerning economic and financial differences, we can make here a few preliminary remarks on how our political economy framework could be applied to analysing the trajectory of Spanish and Italian sovereign risk premia in 2011 and 2012.

The key economic and financial weaknesses that contributed to making Spain fourth in the chain of contagion of the Euro area sovereign debt crisis are the banking and real estate crisis and the dismal labour market performance. Public finances entered the crisis in excellent shape, but have been under increasing pressure since the outbreak of the financial crisis and the economic recession. Meanwhile, Italy's main economic and financial vulnerabilities are linked to its high public debt-to-GDP ratio and to chronic low growth. Against the economic and financial backdrop described, in the first half of 2011 Spain was seen as somewhat riskier than Italy; then, as illustrated in Figure 7.3-2, from mid-2011 both countries saw sharp spread increases and Italian ten-year bond yields moved above Spain's for about nine months. After a period of falling spreads in both countries, the climb resumed in March 2012 and Spanish bond yields moved above Italian yields: Spanish ten-year government bond spreads to Germany reached 6.4% by July 24<sup>th</sup> 2012, while Italian spreads peaked at 5.4%. Both spreads subsequently started coming down as the ECB's OMT programme was announced. Italy has so far avoided an external bail-out, while Spain received an EFSF aid package earmarked for its banks in June 2012 and speculation about its imminent access to a fully-fledged sovereign assistance package was rife in mid-2012.

**Figure 7.3-2 Ten-year government bond spreads to Germany: Italy and Spain**

Spain has an essentially majoritarian system of government, with a strong prime minister and a relatively weaker parliament. Moreover, in the last twenty years, the system has evolved towards a 'quasi-perfect bipolarism', where the two major parties – the Conservative Partido Popular (PP) and the Socialist Partido Socialista Obrero Español (PSOE) – collect over 70% of the vote. Up to the end of 2011, the prime minister was José Luis Rodríguez Zapatero, leader of the PSOE, and also supported by two smaller parties; the PP, under the leadership of Mariano Rajoy, has ruled with an absolute majority since the November 2011 election.

Meanwhile, Spanish politics and society have inherited two profound historical cleavages. The first is the cleavage between centre and periphery, generated by the presence of strong regionalist and regional-nationalist identities in a number of regions (Gunther and Montero, 2009). The second is what Magone defines as the cleavage between the "two Spains": "the conservative, Catholic and monarchic Spain, and the progressive, urban, anti-clerical and republican Spain" (2009, p. 430).

These cleavages are reflected in political life: regional and regional nationalist parties are represented in parliament and tend to be the main channel for protest votes, while the degree of polarisation of the two main parties has increased in recent years, in terms of both ideas and rhetoric (Magone, 2009). Moreover, the progressive devolution of power to the seventeen autonomous regions within the quasi-federal system has contributed to the vertical fragmentation of decision-making.

The features described became evident during the sovereign debt crisis, influencing market perceptions of sovereign risk. On the one hand, the central government was able to implement aggressive austerity measures without parliamentary interference. On the other hand, it struggled to obtain compliance from the autonomous regions - which also faced difficulties in finding external financing and in a number of cases had to ask for central government assistance- and faced considerable social unrest, in the form of strikes and protests. Social unrest<sup>198</sup> was much stronger in Spain than in either Italy or Portugal, also fuelled by extremely high youth unemployment<sup>199</sup>. Repeated episodes of social unrest reduced the bond market impact of the adjustment measures undertaken by the government and increased market concerns on the longer-term sustainability of the adjustment process.

Meanwhile, it is interesting to consider how the influence of the Italian political system on sovereign credibility evolved with the transition from the Berlusconi government to the Monti government in November 2011. Following two electoral reforms in the last twenty years, the Italian party system evolved from a highly fragmented to a more bi-polar configuration, where two main Centre-Right and Centre-Left parties dominate. However, below the surface of unity adopted at the time of elections, old small-party allegiances re-emerge in daily parliamentary life (Bardi, 2007), creating veto opportunities beyond those formally attributed by the institutional system. The effectiveness of Silvio Berlusconi's government in approving and implementing adjustment plans was hindered by the internal fragmentation of its own supporting coalition and the adversarial attitude of the

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<sup>198</sup> Exemplified by the 'Indignados' movement.

<sup>199</sup> The unemployment rate for 15-24 years age group was 52.7% in July 2012 (source: Eurostat).

opposition. The market credibility of the sovereign suffered as a result in the second half of 2011.

Meanwhile, with the creation of the technocratic government under the leadership of Mario Monti, the main parties from both the incumbent majority and the opposition joined forces in a broad cross-partisan coalition, creating a cohesive front supporting Monti's adjustment measures. The cohesive attitude of the parties in parliament was accompanied by a relatively low level of social contestation: social unrest, while present, was much more muted than in Spain. Thus, the market impact of the formal veto-player constellation evolved during the sovereign debt crisis with the evolving degree of socio-political cohesion.

Looking at the international political economy position, while both countries are well integrated with the rest of Europe and the global economy, some differences remain in terms of the overall proximity to core European countries and institutions. Italy is a founder member of the EU, and its industrial and financial sectors are strongly integrated with those of Germany and France, thanks both to trade and to cross-border mergers and acquisitions. Spain has very strong trade integration with the rest of the EMU, but is still in many ways considered a "semi-peripheral economy in the EU" (Magone, 2009, p. 302), in spite of having been a preferred destination for foreign investment in the last twenty years and having hugely stepped up its trade links. Moreover, Spain has an alternative sphere of influence in Latin America. Finally, it is interesting to note that, as in the case of domestic cohesiveness, the degree of ideological proximity between Italy's leadership and that of the rest of Europe also evolved with the leadership transition from Berlusconi to Monti. Mario Monti, with his experience as a European Commissioner highly regarded among the European elites, much reinforced the connection, facilitating the coordination of national and European policies. Draghi's ascension to the ECB presidency in November 2011 also likely helped to cement the connection.

Relative to the hypotheses in our theoretical framework, the relative attractiveness of the Italian versus the Spanish domestic and international political economy landscape would accordingly have evolved over time, which appears to be consistent with the above

indicated varying degrees of under or out-performance of Italian sovereign bond spreads versus the Spanish ones.

**Figure 7.3-3 Key economic and financial indicators**

Source: Eurostat, % of GDP unless indicated, 2010 data

	<b>Public budget balance</b>	<b>Public Debt</b>	<b>Current Account Balance</b>	<b>International Investment Position</b>	<b>Private debt (ex Financials)</b>	<b>Unempl. Rate (% of labor force)</b>
<b>Italy</b>	-4.6	119	-3.5	-24	126	8.4
<b>Spain</b>	-9.3	61	-4.5	-89	227	20.1
<b>Greece</b>	-10.3	145	-10.1	-93	125	12.6
<b>Portugal</b>	-9.8	93	-10.0	-106	250	12.0
<b>Ireland</b>	-31.2	93	0.5	-91	341	13.7

## 7.4 OUTSTANDING ISSUES AND AGENDA FOR FUTURE RESEARCH

This thesis aimed to provide the most complete and integrated analysis possible of the issues under consideration, within the constraints of the PhD project. Still, it leaves room for further investigation in order both to strengthen the empirical evidence and to refine the theory. Moreover, highlighting issues raised by a recent set of empirical events, it opens the door to significant further research on the subject. From this perspective, this section proposes a few ideas for future research. Crucially, all of the proposed areas for further investigation are important not only for the academic debate but also for policy-making, institutional design and regulatory implementation.

First, this thesis identifies a number of political economy factors that influenced sovereign risk premia during Greek and Irish sovereign debt crisis, specifically focussing on events in the period up to the first external rescue package for both Greece and Ireland. The analysis is carried out in a context of high causal complexity, where numerous factors intervene and interact. In such a context, it is often hard to isolate the impact of political factors from that of economic and financial factors, as well as to disentangle and quantify the impact of different political economy factors. Our empirical methodology deals with this high level of

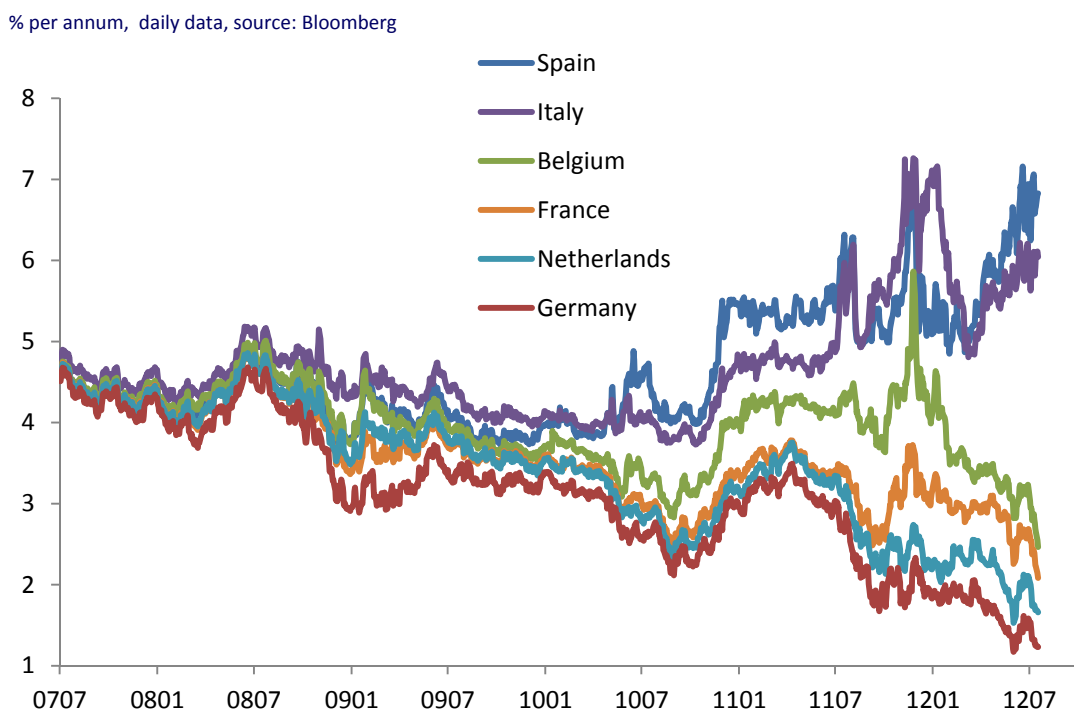
complexity by analysing in depth a small sample of event studies with a combination of cross-country comparisons and detailed event tracing, and by selecting the event studies so as to minimise the variation in residual variables. This approach provides us with empirical evidence strongly supportive of the connection between sovereign risk premia and our political economy variables. However, it does not allow for a more precise quantification of the role of each factor in play. Also, the small n-sample leaves uncertainties about the general applicability of the results. In this light, extending the investigation to similar episodes in other countries would be beneficial in order both to better quantify the impact of each factor and to provide further empirical backing for a conclusive demonstration of the theory.

Our theory is designed to apply to developed democracies facing a sovereign debt crisis (and therefore potentially a default decision). During the timeframe of our PhD, this considerably limited the sample of countries and the length of data series available for testing our theory. A broader and longer set of data points has been developing over time, providing material for enlarging the sample of analysis in the near future. The cases of Spain and Italy, introduced in Section 7.3, would be interesting to analyse in detail.

Second, as the crisis matures and it becomes clearer which countries will escape contagion and which will not, it will also be interesting to adapt the framework in order to explain the differences. Our framework is not designed to deal with this issue directly, and we need to recognise that factors beyond the political economy sphere likely played a crucial role in tipping a sovereign into one group or the other. As Figure 7.4-1 illustrates, bond markets appeared to classify Euro area countries in two groups during the sovereign debt crisis: 'core' countries that saw bond yields falling throughout the period and 'peripheral' and 'semi-core' countries, perceived as much riskier and that saw bond yields rocketing or at least rising sharply. Besides the obvious issue of differing macroeconomic and fiscal fundamentals, for example, Ejsing et al. (2012) show that while the credit risk premium implied in French bond yields increased somewhat during the crisis, this was mostly offset by declines in the liquidity premium driven by 'safe-haven' flows. Not surprisingly, Germany benefitted from the bulk of the 'safe-haven' effect, with this also contributing to the moderate spread widening in the Netherlands, Austria and Finland (De Santis, 2012). From this perspective, Belgium emerges as a potentially interesting case for analysis, from the

political economy perspective, as bond markets for a while appeared uncertain about whether to classify it as 'core' or 'semi-core' economy.

**Figure 7.4-1 Ten-year government bond yields across the Euro area**



Third, as explained in Chapter 1, this thesis does not engage directly with possible differences in market attitudes to sovereign risk resulting from EMU membership. We designed our theoretical framework to be general enough to be applicable to the overall group of developed democracies, as opposed to emerging markets. We tested the theory against the evidence from sovereign debt crises in two developed democracies, but both with the specific characteristic of being part of the Euro area. In Chapter 1, we highlighted how the lack of a unilateral debt monetisation option and of a lender of last resort likely made Greece and Ireland – and other Euro area countries – more vulnerable to a sovereign debt crisis than stand-alone developed democracies in similar economic and financial conditions (De Grauwe and Ji, 2012). However, given that our own framework was developed explicitly with the intention of abstracting from variations in the monetary governance structure, we do not expect that it would to be invalidated by application to a



non-EMU sovereign facing a sovereign debt crisis, although the relative weight of different factors, as well as the identity of the main actors in play, might vary.

The result of the relative strength in influencing sovereign credibility of international factors is potentially the most sensitive to the Euro area focus of our event study sample. As also noted in Chapter 1, Euro area membership reinforces the international dimension of the sovereign default decision due to larger cross-country spill-over, shared interests, and the common governance structure. That said, we derived our expectations on the role of international factors from broader international political economy concepts, so it is quite likely that this would also be significant for stand-alone developed democracies facing similar circumstances. Meanwhile, the relative importance international and domestic factors and the identity of the actors involved could vary, for example with the United States or China, rather than Germany, playing the role of external de-facto veto players. A comparative analysis of Euro area and non-Euro area countries facing outright sovereign debt crisis conditions would be necessary in order to fully validate this, but for now there is very limited data availability in the latter category. Iceland is the only stand-alone advanced economy to have required external assistance since the 2008 global financial crisis, with the sovereign avoiding outright default. This could be an interesting episode for analysis, although the comparison would need to be adjusted for difference in the monetary system.

Fourth, looking at the broader picture, as also noted in Chapter 1, the deterioration of public finances and the diminished faith in the risk-free nature of sovereign debt in the aftermath of the global financial crisis are themes common to a number of stand-alone advanced economies: the United States, the United Kingdom and Japan all face significant doubts concerning long-term debt sustainability that have so far not materialised into bond market moves. A further adaptation of our theoretical framework to analyse developments in these economies, some of which may yet face market reversals in the coming years, would be interesting. Moreover, within advanced economies, sub-sovereigns such as regions, local authorities and US states also saw a sharp deterioration in their finances and often in perception of their creditworthiness. Our approach could be adapted to assess the situation of sub-sovereign entities, including the interaction between sub-sovereigns and federal or central authorities.

Fifth, this thesis proposes an approach to the analysis of the political economy factors mostly based on an extended concept of veto players, including institutional veto players, socio-political contestation and external de facto veto players. Additional depth could be added to the study of the role of de-facto and external veto players. The influence of differing sets of possible de-facto veto players in the socio-political system could potentially be a fruitful area of research. These include, for example: trade unions or business lobbies; the central bank; and different international actors, including not only the IMF, the US and EMU partners and institutions, but also newly emerging trade and financial counterparts such as China and other countries endowed with sovereign wealth funds deploying capital internationally. Moreover, it would be interesting to consider the impact of different types of political factors: reviewing the impact of political events, particularly elections, and the political cycle, could bring some interesting results, as all five cases of sovereign debt crisis in the Euro area coincided with the timing of political elections or government reshuffles. Broadly, the literature on sovereign risk and its political and international connotations is much richer with application to emerging market economies, and this can be an excellent source of inspiration to derive and test hypotheses concerning more specifically EMU countries and developed democracies.

Sixth, the majority of this thesis falls broadly in the category of rationalist institutionalism, in the tradition of Keohane (1984), Milner (1997), Mansfield and Milner (2012). However, it also employs behavioural concepts such as that of anchoring, and stresses the dynamic inconsistency of market expectations even when institutions are held constant. As such, this takes some steps beyond pure rationalist institutionalism, and this aspect could be extended in future work. Indeed, crises appear to play a crucial role in shifting the importance of institutional and political factors, but the collective re-evaluation of risks emerges as the main driver of change, rather than institutions or incentives, which rational institutionalists emphasize.

Seventh, while not the focus of the thesis, the EMU institutional setting still emerges as meaningful for the origins and development of the crisis: while Greece had to face time-consuming and disruptive negotiations in order to obtain bilateral loans, Ireland and Portugal could rely on an ad-hoc institution, the EFSF, while Spain and Italy were further supported by the ECB's OMT programme. Meanwhile, investors were in a position of

permanent learning, through trial and error, about the real nature of the Economic and Monetary Union and its institutions, particularly with regard to attitudes towards intra-regional burden-sharing. In the last two years, scholars have stepped up their analysis of the vulnerabilities created by the EMU governance framework and of how this could be improved. However, the dynamic impact of the constantly evolving EMU framework, on the back of progressive institutional and ideological updates, has not been explored thus far and could be an interesting area for further analysis. More broadly, the EMU and EU structures add a layer of complexity and political negotiation to the decision-making process and a closer analysis of how this impacts the financial market credibility both of individual member governments and of joint financial assets, such as the euro and EFSF bonds, could provide additional material to contribute to an optimal design of EMU institutions and Euro bonds in particular.

## **7.5 IMPLICATIONS FOR POLICY**

The central theme of this thesis goes to the core of one of the key concerns of modern policy-makers: ensuring ongoing and reasonably priced access to external capital in order to help finance the provision of goods and services to its citizens on the basis not only of current, but also of future expected revenues. The ambiguous role played by international financial markets in this process has been for many years now a key issue for investigation in the international political economy analysis of globalisation and its impact on national policy-making. In contrast to the conviction of economists that efficient markets would lead to optimal allocation of capital and policy outcomes, international political economists such as Susan Strange expressed concerns about the damaging consequences of the shift of power from national governments towards the increasingly globalised marketplace (Strange, 1996). In this interpretation, capital mobility is seen as generating significant constraints on domestic policy-making, imposing a convergence towards the neo-liberal model preferred by investors, instead of letting each country choose the domestically-preferred mix of taxes and expenditure.

For most of post-war history, this problematic relationship between sovereign borrowers and international financial markets, with a repeating cycle of positive capital inflows and financial crisis, was most pervasive in emerging market economies. As shown by Mosley

(2003), emerging market sovereigns typically faced extensive scrutiny - covering macroeconomic indicators and macro policy as well politics and micro-policy elements - leading to strong and broad constraints on national government. Meanwhile, until very recently, market scrutiny in advanced economies was much narrower, being limited to a few selected indicators of macro-stability. In the 1980s and 1990s, investors in the bonds of developed democracies focussed almost exclusively on inflation performance and headline budget deficits, with modest interest in broader macro factors, micro policies and politics. Thus, aside from the restricted realm of monetary policy and, to a lesser extent, the headline budget deficit numbers, the governments of advanced economies did not need to put much effort into pleasing financial markets.

However, as shown in this thesis, circumstances changed dramatically starting in 2008, when investors stopped looking at all developed democracies' debt as de-facto risk-free and started to differentiate more carefully within the group. Since then, the valuation models used for emerging market nations' and developed democracies' bonds have tended to blur, with advanced economies facing increasingly broad and deep scrutiny. Policymakers in developed democracies, and particularly in the Euro area, faced a rude awakening as investors started to shun the debt of the governments considered to be most vulnerable from a number of perspectives. In this new state of affairs, Euro area governments, particularly the most vulnerable ones, became subject to closer investor scrutiny on a greater range of policy areas, including structural reforms of the pension systems and labour markets, tax and expenditure policies, banking regulation, and international partnerships. This thesis has highlighted in particular how financial markets became more interested in how the political and social settings would constrain or facilitate these default, consolidation and bail-out choices.

Since they contribute to the broader understanding of investors' attitudes towards developed democracies in crisis periods, the findings of this thesis provide insights for policymakers who need to constantly consider the market reaction to their policy choices, to manage the day-to-day relationship with financial markets, or to design institutions in this area. These insights are particularly important for policymakers in advanced economies, as they are less accustomed than their emerging-market peers to dealing with intensive, broad-based scrutiny by financial markets. In particular, they will be of most

immediate interest for European policymakers, given the particular issues under consideration and the current historical phase. However, their validity could potentially extend to similar challenges that other advanced economies may face in the future.

In the remainder of this section, we present four sets of lessons for policymakers derived from the analysis of sovereign risk premia carried out for this thesis.

First, this thesis suggests that policymakers should treat financial markets 'with care'. As opposed to the higher suspicion demonstrated by emerging market policymakers, policymakers in advanced economies have sometimes appeared to have more faith in financial market efficiency, and to under-appreciate how suddenly, detrimentally and irreparably market confidence could be broken at any time. This attitude can probably be explained by the common economics training based on full market efficiency, as well as the benign experience of the last thirty years. The EMU's founding fathers introduced fiscal rules, namely the Stability and Growth Pact, in a sign that they did not want to rely solely on the judgement of financial markets for external discipline on member governments. However, the enforcement powers of the European Commission were weak and policymakers across the region did not take those rules seriously for a number of years. A relatively benign view of financial markets may have led policymakers to overestimate the role that bond markets could play in sanctioning profligate member governments<sup>200</sup>, as well as to underestimate the risks of a financial crisis and the ex-ante need for a crisis management mechanism. Meanwhile, repeated episodes of 'sloppy' communication reinforced market fears and sometimes contributed to re-igniting the crisis by 'anchoring' market attention in an undesirable direction.

The evidence of markets failing as disciplining devices reinforces the case for having and enforcing fiscal rules and other forms of policy monitoring and surveillance in order to prevent the accumulation of unsustainable budget deficits or external imbalances. Similarly, since markets can go through periods of herding and overshooting, the establishment and use of mechanisms to cushion the impact of excessive market moves,

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<sup>200</sup> The Stability and Growth Pact was added as a monitoring and disciplining device with the creation of the EMU, but was not taken seriously by several member countries.

such as the ECB's SMP and OMT programmes, on top of the creation of lender-of-last resort type of institutions, are very important.

Regarding the communication issue, during the crisis Euro area policymakers appeared to struggle with the need to balance communication intended for domestic audiences and the constraints imposed by the awareness of financial markets 'listening' at all times. The issue was complicated by the fact that multiple institutional layers and a multitude of actors could express their views, including policymakers from member countries, as well as representatives of EU and EMU institutions. A lesson from the crisis is that careful external communication is of vital importance to developing and maintaining market credibility, and avoiding unwarranted volatility: although it is not sufficient, it is a necessary condition. From this perspective, it would probably be beneficial to reduce the sources of disruptive external communication by limiting the set of policymakers and bureaucrats empowered to make external statements.

Second, this thesis alerts policymakers in developed democracies to the importance of the domestic socio-political landscape in shaping market perceptions and determining crisis outcomes. This includes both the formal institutional system and the broader political and social setting. Policymakers in developed democracies have tended to focus on economic and financial performance indicators in order to maintain their credibility in financial markets, while they have typically had little concern about the consequences of political dynamics. However, the EMU sovereign debt crisis clearly shows that the political component is significant and needs to be considered and carefully managed. We do not advocate attempting to adapt the institutional and social structure, and particularly the formal and de-facto veto player structure, to the requirements of market interaction, as that would imply the ex-ante acceptance of the dominance of market forces over domestic preferences. That said, the desirability of governance improvements increases when these changes come with the added benefit of making access to external finance more stable and affordable.

Third, a by-product of this thesis is the evidence confirming that the incomplete nature of the EMU institutional structure acted as a source of market instability. EMU was created as purely a monetary union, where member countries lost monetary policy independence and

the capacity to devalue their currencies, without the back-up of a fiscal or political union. In the event of an asymmetric shock, this meant that individual member states had little room for policy manoeuvre to cushion the impact on their own economies and constituencies. The initial concept of EMU was based on a framework that banned intra-regional fiscal transfers (mainly expressed in the no-bail out clause in the Maastricht Treaty), while at the same time failing to regulate the possibility of sovereign default and EMU exit, as the latter two eventualities were not considered possible. As the crisis unfolded, European policymakers were forced to deal with each problem as it came, introducing additional policy tools (for example the SMP), institutions (for example the EFSF/ESM) and plans (for example the roadmap for a banking union). As a result of the institutional unpreparedness, they gave a constant impression of being 'behind the curve', and failed to bring sufficient reassurance to markets. Moreover, as noted above, throughout the period under consideration in our event studies (as well as before and after), financial markets were constantly in a learning process concerning what EMU meant for the debt of weak member countries, how policymakers would deal with the governance flaws mentioned above, and in which order. In the event, the no-bail-out commitment fell first, with Greece's first bilateral bail-out in May 2010 and the subsequent creation of the EFSF/ESM. Debt restructuring was finally accepted and implemented two years later, with Greece's debt restructuring in March 2012. No country has actually left EMU at the time of writing, but markets worries on a possible Greek exit have not completely gone away.

In *Manias, Panics and Crashes* (2011), Kindleberger and Aliber highlight how financial crises often follow bubbles created by technological innovations. Similarly, the 'trial and error' involved in the introduction and amendment of a hugely novel institutional structure such as the EMU may have contributed to increasing uncertainty and misunderstandings for market participants, in a similar way to how price discovery following technological innovations contributed historically to creating boom-bust cycles in specific sectors (for example, rail transport, electricity, dot-coms). Markets need clarity and transparency in order to be able to make informed decisions based on likely future outcomes, while they hate uncertainty. As a result, it is very important for the EMU governance system to be completed as swiftly as possible, in order both to deal with any additional bouts of crisis and to provide financial markets with a more stable environment for decision-making. Considerable progress has already been made towards the improvement of the EMU

institutional structure. However, further steps with the purpose of reducing market volatility would probably be beneficial, including eventually a move towards a fully-fledged fiscal union, with explicit intra-EMU fiscal transfers and the issuance of euro-bonds.

Finally, the crisis experience in a number of Euro area countries should act as an alarm bell for policymakers in other developed democracies, both inside and outside the Euro area, particularly those facing current high debt levels coupled with unsustainable longer-term projections. Indeed, this thesis shows how markets' attitudes can change very rapidly and how initially modest moves can quickly escalate and become irreversible. Moreover, it shows that not only economic and financial variables, but also political and political economy factors can play a role in this. As noted in Chapter 1, major advanced economies including the US, the UK, Japan and France face high or very high debt levels along with a deteriorating medium term outlook. So far, their public finances situation has been overlooked by markets in search of 'safe-havens', and central bank bond buying has supported budget financing in a number of cases. However, this may not last forever.

## **7.6 FINAL REMARKS**

Financial market credibility for a sovereign in crisis implies a delicate balancing act between domestic forces and international pressures, and is not only an issue of economic and financial numbers. Specifically, this thesis shows that the domestic socio-political landscape and the international political economy position influenced financial markets' perceptions of sovereign risk during the Greek and Irish sovereign debt crises, highlighting in particular the role played by socio-political cohesion and proximity to international creditors.

These findings add a political economy perspective to the dominant economic explanations of the crisis, and alert policymakers to the importance of carefully managing these aspects. As governments advance with painful fiscal and structural adjustments in the crisis-hit countries, maintaining broad-based socio-political support will be increasingly challenging: avoiding extremely polarised reactions will be important for maintaining financial market credibility as well as for the overall stability of the democracies involved.



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**BLOOMBERG NEWS REFERENCES - GREECE CASE STUDY**

Bloomberg News,	May-10	2010	EU Crafts \$928 Billion Show of Force to Halt Crisis, Buoy Euro
Bloomberg News,	May-10	2010	ECB to Intervene in Bond Market to Fight Euro Crisis (Update2)
Bloomberg News,	May-10	2010	Euro-Area Central Banks Are Buying Government Bonds (Update3)
Bloomberg News,	May-09	2010	Merkel's CDU Gets Worst Post-War Result as Greece Derails Vote
Bloomberg News,	May-06	2010	Greece's Papandreou Gets Parliament Approval for EU-IMF Aid
Bloomberg News,	May-07	2010	German Lawmakers Back Greek Aid as Merkel Demands EU Discipline
Bloomberg News,	May-03	2010	ECB Scraps Greek Debt Collateral Rules Indefinitely (Update2)
Bloomberg News,	May-05	2010	Greek Protests Leave 3 Dead, Buildings Burning (Update1)
Bloomberg News,	May-05	2010	German Anti-Greek Aid Suit to Be Filed May 7 by Five Academics
Bloomberg News,	May-05	2010	German Parliament's Budget Committee Backs Greece Aid Bill
Bloomberg News,	May-03	2010	Greece to Submit Law on New Measures to Parliament Tomorrow
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