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The Euro Area Sovereign Debt Crisis: 2010 to 2012 and Beyond

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Abstract This article carries out a detailed study of the Euro Area sovereign debt crisis since its inception in late 2009 until its most acute phase in the first semester of 2012. First the origin in Greece, Portugal, and Ireland is pinpointed, followed by a description of the contagion to Spain and Italy. The specific focus of the article is on the underlying macroeconomic imbalances and structural economic weaknesses that made these countries vulnerable. The paper highlights both the common and the country-specific features of the development of the crisis. Also, it examines the responses to the crisis implemented both by individual governments and at the European level by the European Central Bank and the European Commission/European Council. The Euro Area sovereign debt crisis constitutes a historic event of great relevance to fiscal policy and the associated public debt sustainability. The public finances of Greece and Portugal became vulnerable when their export dependent economies were hit by the global economic downturn of 2008–2009. In Ireland and Spain, the source of the public finance troubles were the construction and housing crashes which occurred in these two countries. Finally, in Italy the troubles originated in the initially high public debt burden, a pre-existing problem which

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worsened and became unsustainable in the context of the global economic downturn and already installed sovereign debt crisis.

Keywords Euro Area sovereign debt crisis · Public debt sustainability · Economic downturns · Fiscal policy

JEL Classification E62 · F34 · G01 · H63

Introduction

The peak of the Euro Area sovereign debt crisis occurred in 2012. We are currently more than a decade beyond that point and are, therefore, in a good position to look at the crisis in perspective, try to understand what happened and, hopefully, learn from it.

The Eurozone is not immune to macroeconomic volatility and, in order to deal with this volatility, monetary and fiscal policies were employed. However, the use of fiscal policy by many Euro Area countries to combat the Great Recession of 2008–2009 led to big increases in public debt, which in 2010 triggered the Eurozone sovereign debt crisis. This article examines how the sovereign debt crisis erupted in Greece in early 2010 and then spread to Portugal and Ireland in 2011. Afterwards, the cases of Spain and Italy are analyzed.

As two countries whose economies are heavily dependent on exports, Greece and Portugal suffered severe economic downturns in the context of the 2008–2009 Great Recession. This resulted in significant decreases in government tax revenues which, coupled with increases in government spending, led to big budget deficits, thus making their public debts rise substantially. The combination of higher public debt with weak gross domestic product (GDP) caused the government debt to GDP ratio to rise sharply.

In the first decade of the millennium, Greece, Ireland, Italy, Portugal and Spain (GIIPS) benefited from cheap loans from Northern Eurozone countries' banks. In the cases of Ireland and Spain, these fuelled construction and real-estate bubbles. The subsequent implosion of these bubbles led to a substantial decrease in economic activity and defaults on bank loans and, thus, to a deterioration of the balance sheets of banks. In turn, these facts caused persistent government deficits and increasing levels of public debt in Ireland and Spain. In the case of Italy, the high public debt problem already existed and came to the fore during the crisis.

Brief Contextualization

As is well known, sovereign debt markets constitute a very important segment of global financial markets. As a consequence, even the sovereign debt default of a small country is in most cases a traumatic event. Reinhart and Rogoff (2011)

provided an historic overview of government defaults. Recent examples which preceded the Eurozone crisis were Russia in 1998 and Argentina in 2001.

In any given year, the government of a country typically needs to borrow to refinance its maturing debt and to finance the public deficit of that year. For the holders of the public debt of the country, what matters is the likelihood that the government might be unable to pay the coupons and the face value of that debt. The usual belief is that the more indebted the government is relative to its GDP, the more likely it is that it will default on at least part of its debt. Thus, the focus of government bondholders is on three questions:

1. Is today's level of the public debt-to-GDP ratio high, low or moderate?
2. What is the likely evolution of the debt-to-GDP ratio in the coming months and years?
3. Does the government have sufficient conditions to adopt policies that could decrease the debt-to GDP ratio?

Regarding question 1, a ratio that goes above 60% is normally considered to have entered a less sustainable region because that makes the government vulnerable to variations in the interest rate. For example, if the public debt ratio is at 70% of GDP and the interest rate increased by four percentage points, which would not be unusual, this would imply an increased burden in terms of interest payments by the government corresponding to 2.8% of GDP (after enough time passed for all public debt to have been refinanced). This is considered an amount too high for the average country. Still regarding question 1, Reinhart and Rogoff (2010) showed, in a study of 44 countries over two centuries, that when public debt goes beyond 90% of GDP, economic growth tends to fall by one percentage point.

Regarding question 2, to estimate the likely future evolution of the debt-to-GDP ratio, investors focus on the public deficit (because it increases debt) and on GDP growth (because stronger growth makes the denominator of the ratio increase and it also raises tax revenues, thereby reducing the deficit and hence the growth of public debt). Very strong growth could even lead to surpluses in the budget balance thus creating room for reductions in public debt.

Finally, question 3 examines the ability of the government to adopt measures to cut the deficit and adopt policies to stimulate economic growth. In this regard, the degree of support that the government enjoys in parliament is critical. A comfortable majority would in principle make it easier to adopt the needed policies. In terms of the ability to cut the deficit, other important factors are, first, the overall standard of living of its citizens (if the country is poor, there is not much room for tax increases and spending cuts whereas in a wealthy country tax increases face less public resistance) and, second, the assets owned by the government (a well-endowed government can sell some of its assets to help solve debt problems). On the other hand, as pointed out by Burdekin and Sweeney (2021), countries with strong institutions are viewed as more able to overcome difficult situations.

Developments Leading to the Eurozone Sovereign Debt Crisis

In the specific case of the Euro Area, created in 1999, sovereign debt problems were deemed unlikely, insofar as both the introduction of the Euro and the corresponding institutional structures were meant to strongly discourage member states away from fiscal profligacy (Whelan, 2013). The Stability and Growth Pact (SGP) signed in 1998 defined 3% as the upper limit for the deficit-to-GDP ratio that any Eurozone government could present at the end of each year. The main concern was the fact that public deficits may imply money creation thus possibly creating upward pressures on inflation.

The SGP allowed for the 3% threshold to be breached if one of two situations occurred in a country: either a very extraordinary event beyond the control of public authorities, such as an earthquake, or a deep recession. From the beginning of the Eurozone in January 1999 until the Great Recession triggered by the 2007–2009 United States subprime financial crisis, several European Union (EU) countries failed to comply with the rules of the SGP but were not punished. Then, in 2008–2009, all EU countries plunged into recession (except Poland). This led several European countries to exceed the 3% deficit limit enshrined in the SGP, using the exception clause mentioned earlier. However, there was again a breach of the SGP rules because the exception clause only allowed for small and temporary deviations from the 3% ceiling. Still, France, for example, ran a sizable government deficit in the 2010–2015 period, with a maximum of 6.9% and a minimum of 3.6%, in clear breach of the SGP. In another example, Spain ran a substantial deficit over that period, with a maximum of 9.5% and a minimum of 5.3%.

In short, the SGP rules were broken both before and after the onset of the Eurozone sovereign debt crisis and, as a consequence, this Pact lost credibility in financial markets. At the same time, falling GDP coupled with high public deficits implied fast growing debt-to-GDP ratios.

Eurozone Sovereign Debt Crisis and the GIIPS

This section first examines how the sovereign debt crisis erupted in Greece in late 2009/early 2010 and then spread to Portugal and Ireland in 2011. Afterwards, the cases of Spain and Italy will be analysed.

Greece

The first manifestations of the Eurozone sovereign debt crisis occurred in December 2009 and January 2010. Figure 1 shows the marked increases in the yields of 10-year Greek treasury bonds starting in December 2009 due to growing market awareness of the Greek sovereign debt problem.[1]

[1] In the figures for Greece, the data start from 2002 onwards because Greece only joined the Eurozone in 2002.

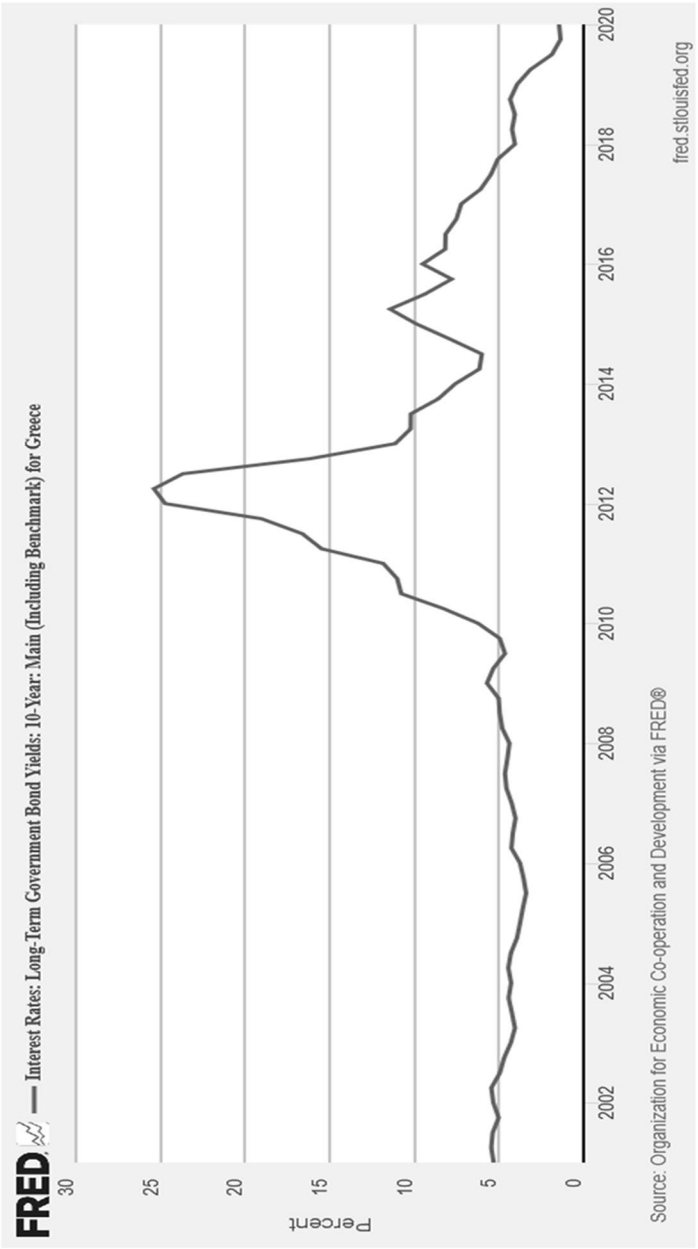

Fig. 1 Greece's long-term bond yields. Data source: Organization for Economic Co-operation and Development (2020)

This Greek public debt problem is visible in Fig. 2, where a sudden acceleration in the debt-to-GDP ratio, starting in 2008, was caused by sizable budget deficits and by the contraction of Greek GDP. According to International Monetary Fund (2023) statistics, in 2009 the Greek government deficit reached 13.7% of GDP and the Greek economy contracted by nearly 10% between 2008 and 2010. This decrease in real GDP occurred in the context of the global economic downturn of 2008–2009, with Greece being an export-dependent economy (in 2007 Greek exports of goods and services corresponded to 22.5% of its GDP, according to World Bank (2025) data).

In this context, bond investors started to focus on two questions. First, would the Greek government be able to substantially reduce its public deficit, so as to control the growth of public debt? Second, how would the Greek economy perform in the following months and years (weak or negative GDP growth reduces the possibility of a decrease in the debt–to-GDP ratio)? Given the severity of the situation, the Greek government announced steps to cut government spending and social transfer payments as well as increase tax revenues (House et al., 2020). The Greek government also initiated a program of asset sales. Investors[2] received these measures with scepticism both because they did not believe the announced measures would be fully implemented and because they suspected that those measures would plunge the Greek economy into a deep recession, making tax revenues fall sharply (unemployment and other macro data released at the time reinforced this fear).

In early 2010, the estimated amount Greece needed to borrow during 2010 only to refinance its public debt was 40 billion euros. Knowing this, both the Greek government and Greek bondholders lived through moments of anxiety every time the Greek government tried to issue more bonds. The questions hanging over each public debt auction were: Is Greece going to be able to borrow the amount the country is looking for? If so, at which interest rate?

The growing intensity of the crisis led the European Commission and the International Monetary Fund (IMF) to promise that, if markets failed to lend to the Greek government at reasonable interest rates, they would themselves make loans to Greece of up to 45 billion euros at comparatively low interest rates. To the shock of many, this was not enough to calm the markets. The growing public deficit and the knowledge that 45 billion euros was only enough to fulfil Greek financing needs for one more year kept markets unsettled. The public deficit was rising both because the higher risk premia were increasing the interest rates on public debt (and hence the interest expenses of the government) and because the recession was causing a decline in government tax revenues. In this context, new estimations indicated that for Greece not to need to tap the markets for a three-year period, Greece would need 110 billion euros (International Monetary Fund, 2010). In May 2010, the European Commission and the IMF promised they would lend this amount to Greece if needed.

[2] The main holders of Greek debt were Greek and Eurozone banks, especially German and French banks.

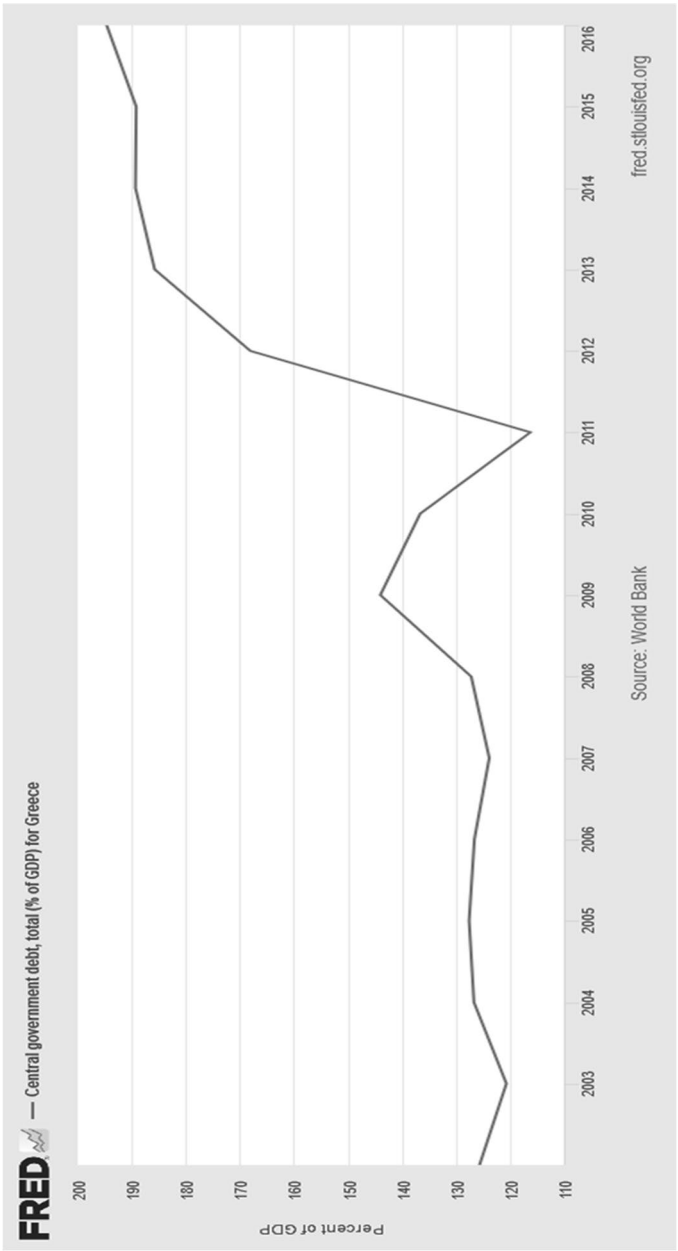

Fig. 2 Greece's central government debt. Data source: World Bank (2016)

One year later, in the face of deterioration in both the Greek public finances and economic growth, European leaders proposed to increase that amount to 130 billion euros, but only if Greece restructured its public debt. This involved telling private bondholders that the Greek government would only pay about half of the debt and that these payments would only be made at later dates [the European Central Bank (ECB) and other public entities would not suffer from this haircut].

Portugal

In 2007, after decades of efforts by successive governments, Portugal finally managed to bring its budget deficit below the 3% threshold. However, the Great Recession of 2008–2009 had big consequences for the Portuguese government's accounts.[3] Weaker economic activity translated into lower tax revenues and public spending rose due to both the automatic stabilisers and the government's discretionary decision to increase public expenditure (in order to compensate for the decrease in private expenditure). In 2009, tax revenues fell by 11.4% while public expenditure increased by 5.8%. As a result, the public deficit rose to 9.4% of GDP and public debt increased to 83.6% of GDP.

This combination of a stock of public debt approaching 90% of GDP with a public deficit around 10% of GDP (i.e., high and fast rising public debt) led debt markets to start raising questions about the likelihood of a default by the Portuguese government. Like Greece one year before, Portugal fell into a vicious cycle whereby a big public deficit and high public debt increased investor mistrust leading bond markets to charge higher risk premia and hence higher interest rates (Online Supplemental Appendix (OSA) Fig. 1). This in turn increased the government's burden in terms of interest payments, thus further raising the deficit and the debt.

To counter this negative spiral, the Portuguese government adopted several packages of austerity measures in March, May, and September of 2010. These included tax increases, cuts in public sector wages, no increase in unemployment benefits (making its real value fall), ceilings on fiscal benefits, reductions in social benefits, a new round of privatizations, and the postponement of public works in airports and in the railway sector. In spite of these measures, the public deficit as a percentage of GDP did not improve much during 2010 and thus the pressure in the Portuguese government bond market continued. In March 2011, a new package of austerity measures was rejected by parliament. In the context of a high and fast rising debt-to-GDP ratio, this lack of support in parliament for new measures was the straw that broke the camel's back. In the secondary market, heavy selling of Portuguese bonds made their prices fall and yields rise. In the following months, yields on Portuguese debt reached 12% (OSA Fig. 1). In the primary market as the crisis deepened, foreign banks were withdrawing from auctions of new government debt, with the slack taken up by Portuguese banks. However, Portuguese banks soon made it clear that

[3] Portugal is an export-dependent economy. In 2007, Portuguese exports of goods and services corresponded to 31.2% of its GDP, according to World Bank Databank (World Bank, 2025).

they had also reached a limit. It would not be reasonable, from a risk management perspective, to continue increasing the weight of Portuguese sovereign debt in their balance sheets.

In this context, the Portuguese government had no choice but to ask for help from the IMF and the European Commission, i.e., to ask them to lend what debt markets were not willing to lend at reasonable interest rates. The so-called *troika*, composed of the IMF, the European Commission, and the ECB, agreed to come to the rescue, but only conditional on the adoption of measures to cut the deficit and measures to stimulate economic growth.

It was deemed important to propel economic growth. In fact, during the unfolding of the crisis, the absence of strong GDP growth had been a major obstacle to its natural solution. (As already mentioned, economic growth is a very effective way of making the debt-to-GDP ratio fall). As highlighted by Baer et al. (2013), slow productivity growth and the loss of competitiveness of the Portuguese economy were the main root causes of the country's weak economic performance.

Ireland

During 2011, stress in the public finances of Ireland made this country vulnerable to contagion from the ongoing euro area sovereign debt crisis. Behind the deterioration in the Irish public finances was a hard crash in its housing market, which had previously experienced a strong boom that turned this sector into a big slice of the overall Irish economy. First, the housing boom and bust in Ireland will be examined.

Ireland's joining of the euro in 1999 eliminated the exchange rate risk associated with borrowing from Eurozone banks, and thus caused a substantial decline in nominal and real interest rates.[4] In turn, this led to a large rise in the loans provided by Irish banks to the domestic private sector, especially to property developers and to home buyers.

Irish banks started to increasingly rely on short-term loans from Eurozone banks to meet their funding needs. By the end of 2006, 39% of the outstanding loans of the six major banks were based on Eurozone wholesale funding, and the net foreign liabilities of Irish banks rose from 10% of GDP in 2003 to 60% in 2008 (Clarke & Hardiman, 2012, p. 10; p. 13).

Total credit to the private sector rose continuously after 1997, from 90% to 225% of GDP in late 2007. This increase in credit was especially directed to construction companies and to households willing to buy a home: "the share of property-related lending [rose] from 45% of total credit in December 2002 to over 60% in December 2008" (Nyberg, 2011, p. 14). Increasing overconfidence and complacency led all the main Irish banks to fully finance home purchases in many cases.

This credit boom caused a sharp increase in house prices, which doubled from 2000 to 2007, and gave an enormous boost to the construction industry. From 2002

[4] Between 1995 and 1999, the 10-year bond yield fell from 8.2% to 4.7% while the 3-month rate dropped from 6.7% to 2.7%. Both rates then remained near those low levels for the next 10 years.

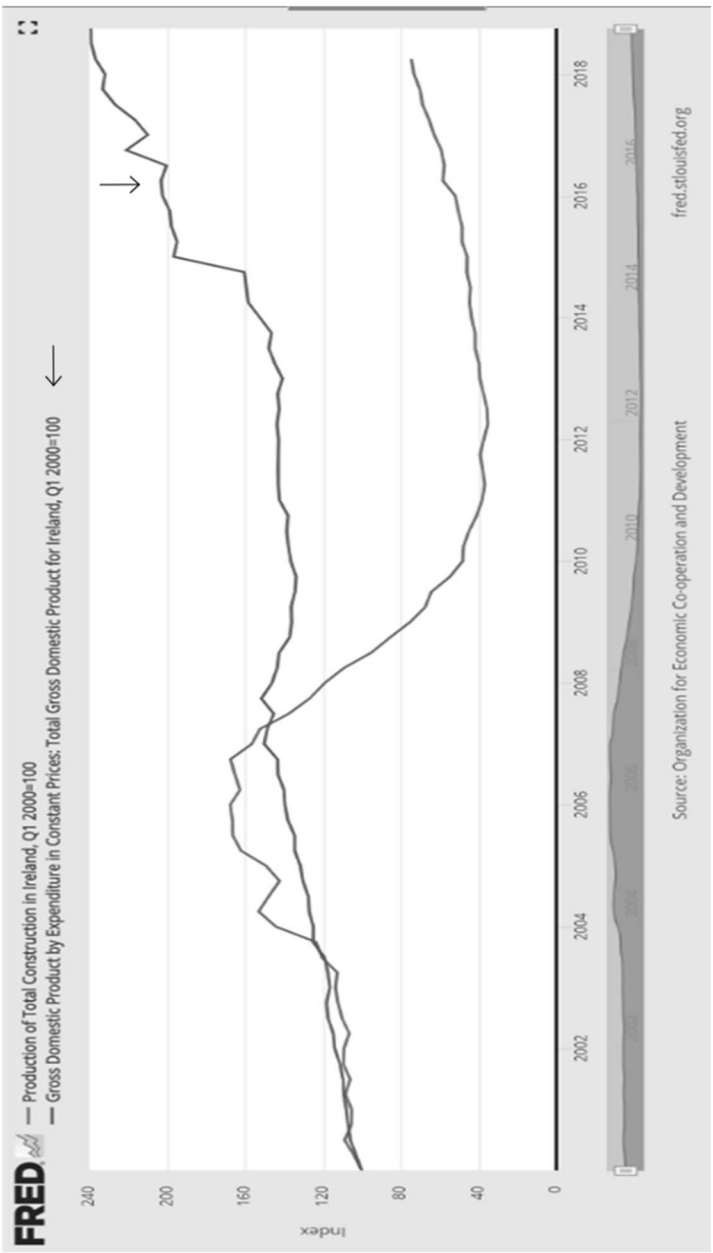

Fig. 3 Total construction vs. GDP in Ireland. Data source: Organization for Economic Co-operation and Development (2019)

to 2006, the output of the construction sector rose by 57.5% compared with a rise in real GDP of only 21.6% (Fig. 3). In 2006, the construction sector accounted for nearly 20% of gross national product (GNP) and over 13% of total employment.

This rise in the construction sector coupled with soaring house prices boosted fiscal revenues. "…at its peak, revenues directly related to property accounted for some 15% of total revenues" (Clarke & Hardiman, 2012, p. 13). As a result, from 1997 until 2007 the government recorded surpluses in every year except 2003, and public debt dropped from 61.6% to 23.9% of GDP.

The subprime credit crisis that started in the United States in 2007 and the ensuing global economic and financial crisis caused a substantial drop in the demand for houses in Ireland and, thereby, a sharp decline in the construction sector. The production of this sector fell by about 25% between the last quarter of 2006 and the last quarter of 2007. This decline in the construction sector was not enough to drag the economy down with it in 2007. However, the surplus of houses first revealed in that year triggered a crash in construction in the following years that led to an economy-wide recession (Fig. 3).

Between 2006 and 2010, the production of the construction sector fell by 73%, and then stayed at the 2010 low level until 2015. Residential prices fell by 55% between 2007 and 2012. As a result of this construction crash, GDP fell by nearly 12% and GNP by nearly 18% between the last quarter of 2007 and the last quarter of 2009.[5] Note that this economy-wide recession in Ireland was mainly caused by the collapse of the domestic construction sector, with the worldwide economic recession playing a less important role. In fact, exports fell by only 3.9% in 2008 and rose by 4.6% in 2009 (International Monetary Fund, 2019).

The 2008–2009 construction-centred recession had a serious impact on banks and public finances. Bank non-performing loans were under 1% of gross loans until 2007. Afterwards they rose to 2% in 2008, 10% in 2009 and eventually to 25% in 2012 and 2013 (Fig. 4).[6]

The initial non-performers were the construction companies, unable to sell their houses when the demand for them started to fall as the sub-prime crisis unfolded in 2007–2008. Adding to this, the crash in construction activity and the resulting decline in GNP then led to a pronounced rise in unemployment, from 5% in 2007 to 15.5% in 2012.[7] This further fed the increase in the number of non-performing bank loans in two ways. First, many workers who lost their jobs became unable to meet their mortgage payments. Second, the sliding economy and the escalating unemployment made many people afraid of asking for mortgage credit and banks reluctant to provide such credit. As a result, the number of house purchases continued to

[5] In the first decade of this century, Irish GNP was equal to about only 85% of Irish GDP. The difference was mainly due to the export-oriented pharmaceutical industry dominated by foreign companies. These companies are very capital-intensive, and thus employ few people and distribute a big part of their incomes to their foreign owners. During the crisis, this sector, which relied very little on the domestic market, was less affected than the rest of the economy. Therefore, GDP fell by much less than GNP.

[6] This is compared with a peak in United States bank non-performing loans of just 5% in 2009.

[7] About two-thirds of the country's job losses (300,000 in all) occurred in the construction sector, where employment fell from 280,000 workers in 2007–2008 to only 90,000 in 2010–2015.

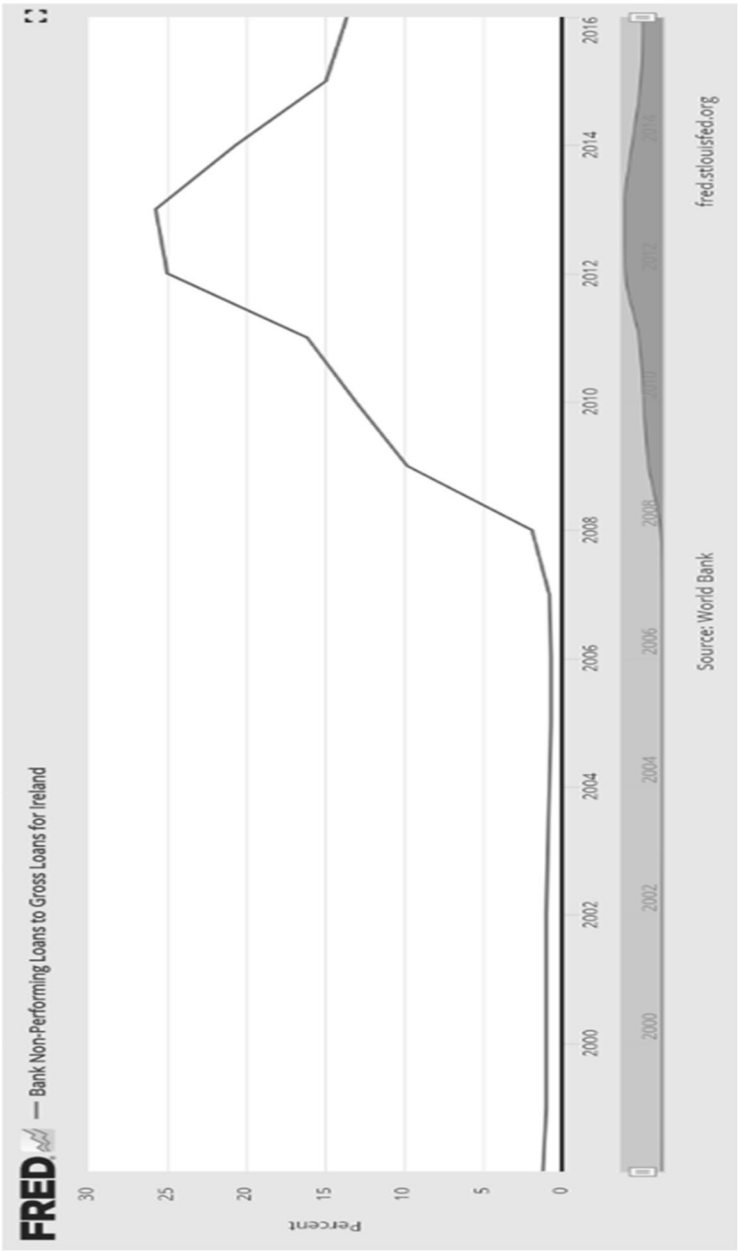

Fig. 4 Percentage of Irish bank non-performing loans. Data source: World Bank (2016)

drop, leaving an increasing number of construction companies with unsold houses and thus unable to meet the payments on the debt they had contracted to build them.

Public finances were affected in two ways. First, the crash in house prices and in construction activity and the decline in GDP led to a substantial drop in government revenues. They fell by more than GDP because, as already pointed out, during the boom the revenues directly related to property had accounted for a substantial share of total revenues. Government revenues fell from 36.6% to 33.2% of GDP between 2007 and 2009. Second, public finances were affected because the government decided to cover most of the bank losses caused by the property-related non-performing loans. This entailed a cost for taxpayers of 40% of GDP.[8]

The bailout, coupled with the drop in fiscal revenues, led to big budget deficits and to a huge increase in public debt, from 23.9% to 111% of GDP between 2007 and 2011 (OSA Fig. 2). As a result, Ireland was hit by the Eurozone sovereign debt crisis which started in early 2010. When the yield on its 10-year Treasury bonds more than doubled to 12.5% in 2011 (OSA Fig. 3), the government was forced to seek an EU-IMF loan equal to 50.6% of its GDP (Breen, 2012, p. 75). As usual, this international help was conditional on fiscal austerity and, as a consequence, the Irish recovery was postponed to 2014 (Fig. 3).

Deepening of the Crisis

In the second half of 2011, the crisis spread to the much bigger economies of Spain and Italy. The developments in these two countries are described next.

Spain

The narrative of Spain's economic boom and bust was remarkably similar to that of Ireland. Spain's joining of the euro in 1999 eliminated the exchange rate risk associated with borrowing from Eurozone banks and led to a substantial decline in interest rates. In particular, the reference rate for mortgage credit fell from near 10% in 1996 to 2%–3% in 1999–2006. This triggered a rise in the credit extended by Spanish banks to property developers, to construction companies and to the purchase of houses by households. As a result, there was a rise in the demand for houses and in their prices, and an expansion of the construction sector that motored an economy-wide boom. This in turn led to an increase in employment and to massive flows of immigrants (a total of around 4.5 million in 1997–2007). These flows further boosted the demand for houses, the expansion of the construction sector, and the growth of the economy as a whole.

[8] The bailout only excluded bank shareholders and subordinated bank bondholders, who suffered losses of about 10% of GDP (Darvas, 2011, p. 15).

OSA Fig. 4 documents Spain's economic expansion driven by construction financed by cheap credit. In 2004–2007, "credit to the construction sector experienced an annual average growth of 24.6%, whereas credit to the real-estate sector grew at an average annual rate of 43.1% … Between 1997 and 2007, housing loans increased from 28.4% to 102.9% of GDP." (Carballo-Cruz, 2011, pp. 313–4). In turn, the enormous increase in the demand for houses financed by this credit boom led to a spectacular rise in house prices and to marked expansions of the construction sector and of GDP. Between 1997 and 2006, house prices rose by 116% in real terms, while the construction sector and real GDP expanded by 70% and 41%, respectively (OSA Fig. 4). In 2006, the construction sector accounted for nearly 16% of GDP and 14% of total employment.

The rise in the volume of the construction sector coupled with the soaring house prices boosted fiscal revenues. As a result, from 1997 to 2007 government deficits shrunk and then turned into surpluses, and public debt dropped from 60% to 32.1% of GDP (OSA Fig. 5).

In 1997–2007 about half a million houses per year were constructed but, due to the demographic structure of the country, only 350,000 per year were warranted (Martinez et. al., 2006). Some property developments led to ghost towns like Valdeluz, a town constructed for 30,000 people but inhabited by only 700 people by 2011 (Lubin & Goldman, 2011).

In turn, this surplus of houses in 2008 triggered a crash in construction in the following years that led to an economy-wide recession. Between 2007 and 2013, residential prices fell by 43% in real terms, while the output of the construction sector fell by 55%. As a result of this construction crash, real GDP fell by 9% between 2008 and 2013 (OSA Fig. 4).

The 2009–2013 recession had a serious impact on banks and public finances. Bank non-performing loans had been around 1% of gross loans until 2007. Afterwards they rose continuously to more than 9% in 2013 (OSA Fig. 6). The initial non-performers were the construction companies unable to sell their houses. Additionally, the crash in construction activity and the resulting decline in GDP led to a pronounced rise in unemployment, from 8.2% in 2007 to 26.1% in 2013.[9] This further fed the increase in the number of non-performing bank loans because many workers lost their jobs and the escalating unemployment made many people afraid of asking for mortgage credit (and banks reluctant to provide such credit). As a result, the purchase of houses continued to drop, leaving an increasing number of construction companies with unsold houses, and thus unable to meet the payments on the debt they had contracted to build them.

Public finances were affected in two ways. First and foremost, the crash in house prices and construction activity and the decline in GDP led to a substantial drop in government revenues. Second, public finances were affected because the government decided to cover some of the bank losses caused by the property-related non-performing loans. This entailed a cost for taxpayers of 4% of GDP (compared with

[9] Near half of the country's job losses (3.45 million in all) occurred in the construction sector, where employment fell from 2.7 million in 2007 to only 1 million in 2013.

a cost for taxpayers of 40% of GDP in the case of Ireland) and was financed by an EU-IMF bailout in 2012–2013 (Frayer, 2014).

The dramatic decline in tax revenues, coupled with the bailouts, led to big budget deficits and a sharp increase in public debt, from 32.1% to 99.4% of GDP between 2007 and 2013 (OSA Fig. 5). As a result, Spain was caught in the whirlwind of the Eurozone sovereign debt crisis, which started in early 2010, and saw the yield on its 10-year Treasury bonds rise from 3.9% to 6.8% between April 2010 and July 2012 (OSA Fig. 7). The turning-point of this crisis only occurred when the then ECB President Mario Draghi on 26 July 2012 said that the ECB was "ready to do whatever it takes to save the euro" (Lagoa et al., 2022: p. 1090). Soon after that, yields on Spanish 10-year Treasury bonds started a sustained decline, reaching close to 1% by early 2015 (OSA Fig. 7). Unlike the Irish government, the Spanish authorities were successful in avoiding a fully-fledged EU-IMF bailout.

Italy

The case of Italy is of particular interest. In the decade which preceded the crisis, the public debt ratio of this country was comparatively high (Fig. 5), resulting in yields which revealed a certain contained stress (Fig. 6).

Italy entered the Eurozone in 1999 with a much higher public debt than Ireland and Spain (110% of GDP compared with only about 60% of GDP). Also, in the subsequent years preceding 2008, Italy's public debt fell by much less and ended 2008 at 102% of GDP compared to only 24% and 32% of GDP for Ireland and Spain, respectively. The decrease in Italy's public debt to GDP ratio was the result of small public deficits (OSA Fig. 8) combined with some GDP growth (OSA Fig. 9).

Italy's economic growth was slower than in Ireland and Spain for several reasons. In particular, the magnitude of Italy's construction boom was much smaller than the booms observed in Ireland and Spain. The main reason was that Italian banks channelled a lower proportion of their loans to property developers, construction companies, and to the purchase of houses by households. At the peak, only about 25% of Italy's bank loans, compared with approximately 60% of Spain's and Ireland's, were directed to the construction/housing markets (Nyberg, 2011; Quaglia & Royo, 2015). Thus, instead of doubling as in those countries, Italian real house prices rose by only 36% between 2000 and 2007, and the expansion in the construction sector was also smaller: 50% between 1998 and 2007, compared with around 70% in Ireland and Spain. In this context, Italy achieved average annual GDP growth of 1.3% between 1998 and 2007.

As in the cases of Ireland and Spain, Italy's construction boom was followed after 2008 by a crash which contributed to several years of very low or negative GDP growth. However, the magnitude of the crash was smaller. The volume of construction declined by 40% compared with 55% in Spain and 73% in Ireland, while residential prices fell by 16% compared with 43% in Spain and 55% in Ireland. As a result, the negative effects on economic growth and on banks were milder and so was the impact on public finances. Yet, because Italian public debt was much higher on the eve of the crisis, by the end of 2010 it still remained higher, at 115% of GDP,

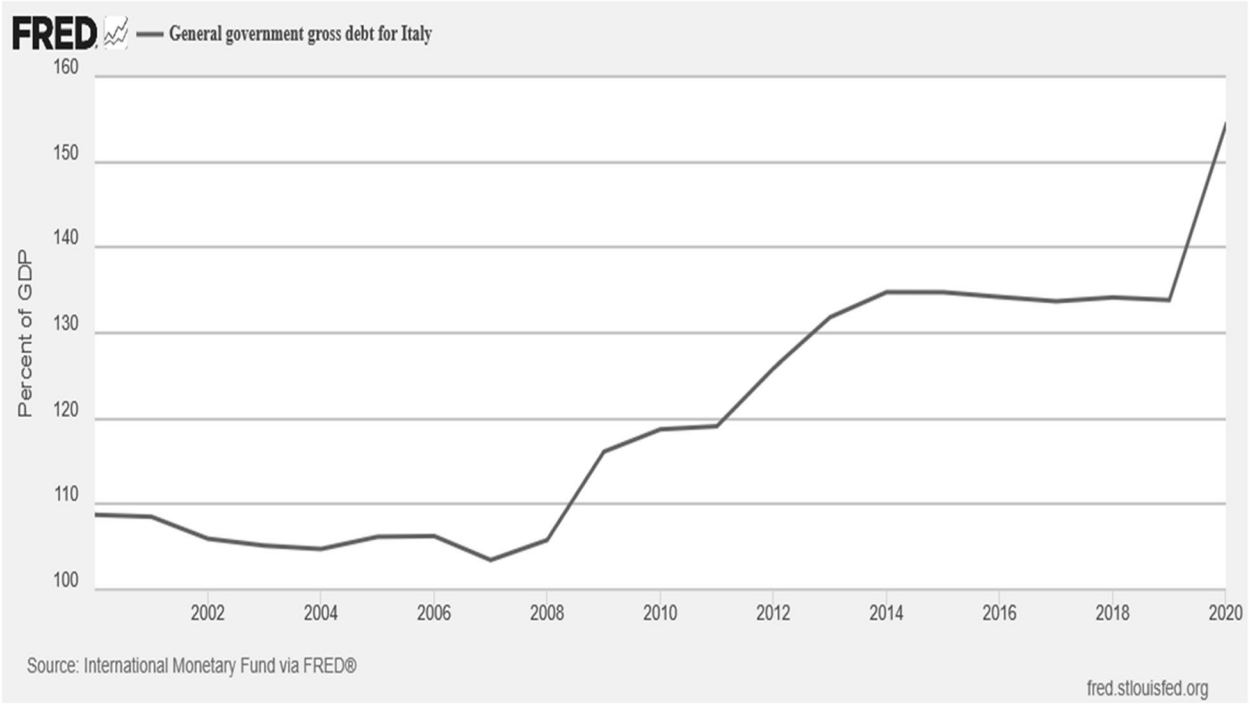

Fig. 5 Italy's central government debt. Data source: International Monetary Fund (2020)

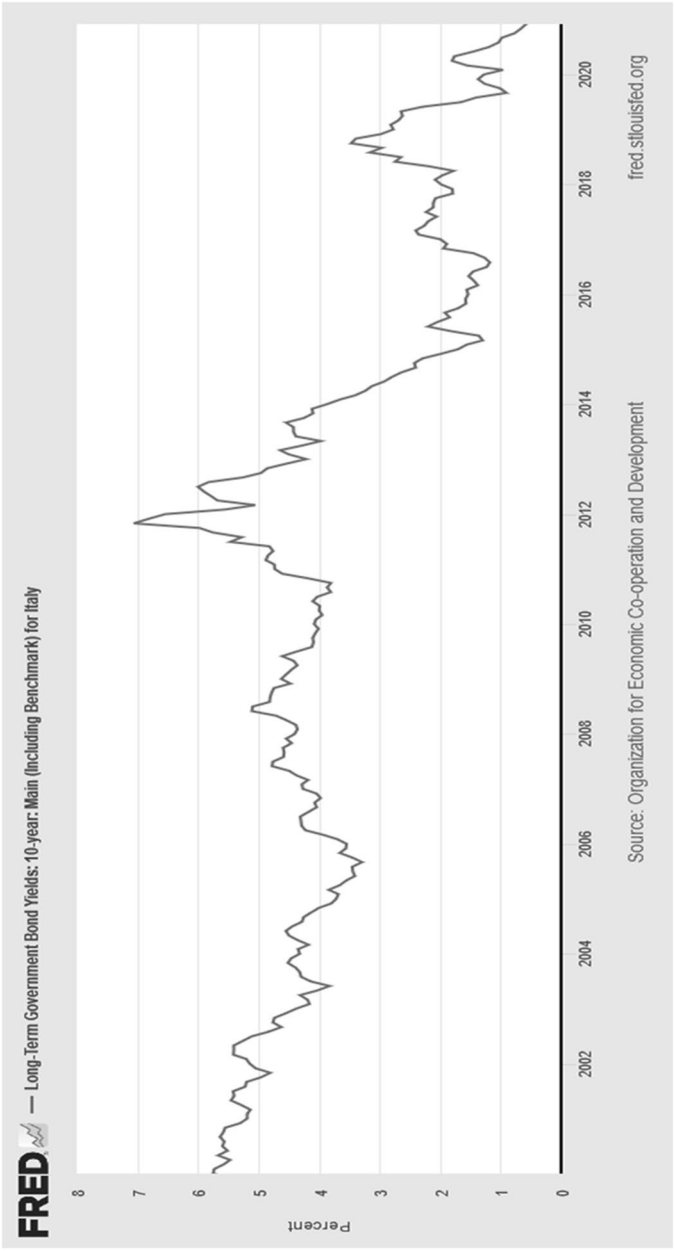

Fig. 6 Italy's long-term bond yields. Data source: Organization for Economic Co-operation and Development (2021)

than the fast- escalating Irish and Spanish public debts. As a consequence, Italy was also hit by the Eurozone sovereign debt crisis and saw the yield on its 10-year Treasury bonds rise from 4% to 7% between April 2010 and November 2011 (Fig. 6). Like the Spanish, but unlike the Irish, the Italian government was able to avoid a full EU-IMF bailout.

Response to the Crisis at the European Level

Greece, Portugal and Ireland are relatively small economies. According to International Monetary Fund (2026) data, in 2011 they accounted for around 2.1%, 1.8%, and 1.7% of the Eurozone economy, respectively. However, when the crisis spread to Spain and Italy (which at the time corresponded to 10.8% and 16.7% of the Eurozone economy, respectively) European leaders realized they had to act swiftly and strongly.

Many Eurozone banks were heavily exposed to the treasury bonds of Italy and Spain. If the yields of these bonds rose too much, Italy and Spain could be forced to default. This would in turn likely cause bankruptcies in several Eurozone banks, many of whom had already been hit by the Greek haircut, thus compromising the sustainability of the Eurozone as a whole.

The policy response at the European level was twofold comprised of a fiscal policy response led by the European Commission and a monetary policy response devised by the ECB. In order to restore confidence in Eurozone sovereign debt markets, European leaders agreed on a new set of fiscal rules (Keuschnigg & Weyerstrass, 2015). The European Fiscal Compact (European Union, 2012) was signed in March 2012 by all countries that belonged to the EU at the time, except the Czech Republic and Great Britain. The main rule introduced by this pact was that, in each year, the cyclically-adjusted fiscal deficit of a government cannot exceed 0.5% of the nominal GDP of the respective country.[10] This rule only applies to countries with a public debt exceeding 60% of GDP. The rule was introduced into the legal framework of each signatory country, at the Constitution level or equivalent. The need for such legal enforcement resulted from the damaged credibility of the Stability and Growth Pact of 1998.

In order to countervail short-term financial stress in GIIPS sovereign debt markets, a European stability fund was introduced to provide loans to ailing economies. This fiscal backstop, known as the European Financial Stability Facility (EFSF), came into existence in 2010, and was supposed to intervene whenever markets failed to lend to a potential struggling country at reasonable interest rates. More importantly, the European Stability Mechanism (ESM) was subsequently introduced to permanently help governments overcome temporary illiquidity issues, replacing the EFSF in this role of fiscal lender-of-last-resort. In 2011–2018, the EFSF and the

[10] Using past GDP data, it is possible to compute a trend that smooths out business-cycle fluctuations. The government's cyclically-adjusted deficit of each year is the deficit that the government would have had in that year if GDP had been in its trend and the corresponding fiscal revenues had been generated.

ESM together provided loans in the vicinity of 300 billion euros to five countries: Greece, Portugal, Ireland, Spain and Cyprus. These loan facilities were based on financing raised through bond markets.

The fall in sovereign bond yields during 2012 can be attributed to both the fiscal responses related to the European Fiscal Compact (European Union, 2012) and to the Mario Draghi "whatever it takes" speech of July 2012 (which included announcement of the Outright Monetary Transactions program) (Lagoa et al., 2022: p. 1090). The ECB introduced the Outright Monetary Transactions (OMT) program in September 2012. Under this program, the ECB committed to acquiring substantial quantities of government bonds of Eurozone countries, especially those facing higher borrowing costs. This successfully contributed to lower bond yields related to the public debt issued by GIIPS countries. This fall in yields was sustained over the medium term, as can be seen in the respective figures (Fig. 1, Fig. 6, OSA Fig. 1, OSA Fig. 3, OSA Fig. 7). Further confirmation of the medium-term success of the EU institutions' policies is given by the behavior of the yield spread of each country relative to German 10-year treasury bonds. In fact, the Greek spread fell from a peak of 27.4 percentage points (p.p.) in February 2012 to 6.4 p.p. in January 2014 and 1.7 p.p. in December 2019 (just before the beginning of the coronavirus 2019 (COVID-19) pandemic). In Portugal, the yield spread fell from a peak of 12 p.p. (January 2012) to 3.5 p.p. (January 2014) and 0.7 p.p. (December 2019). In Ireland, the fall was from 9.7 p.p. (July 2011) to 1.6 p.p. (January 2014) and 0.3 p.p. (December 2019). In Spain, the fall was from 5.6 p.p. (July 2012) to 2 p.p. (January 2014) and 0.7 p.p. (December 2019). In Italy, it went from 5.2 p.p. (November 2011) to 2.1 p.p. (January 2014) and 1.7 p.p. (December 2019). Note that from the beginning of 2015, policy measures also included the ECB's quantitative easing programme.

Regarding the ECB's actions, Cour-Thimann and Winkler (2012) made an interesting observation. They pointed out that the ECB's stance at the time reflected this institution's unique ability to "take on leverage when other sectors are under pressure to deleverage" (Cour-Thimann & Winkler, 2012, p. 765).

Concluding Remarks

The present article presented the historic circumstances under which the fiscal policies of the GIIPS economies became stressed during the Eurozone sovereign debt crisis that started in early 2010. Examined was the outbreak of the crisis in Greece in early 2010 and how market doubts regarding the government's willingness to tackle the underlying problems ultimately led to the need for a bailout by the IMF, the European Commission and the ECB. What happened in Portugal during 2011 mirrored what happened in Greece during 2010, but on a smaller scale. This was due to the fact that Portugal addressed the sources of its public finance problems much earlier than Greece (for example, by increasing the effectiveness of its tax-collecting machine). The onset of the crisis in Ireland and Spain was rooted in housing crashes which occurred in these two countries. In both cases, the economic downturns generated by the construction sectors had a serious impact on the banks and public finances. What happened in Spain seemed to mirror developments which

occurred before in Ireland, but on a smaller scale. Finally, Italy was mainly a victim of its initially high public debt ratio, which further increased and became unsustainable in the context of the global economic downturn and the already installed sovereign debt crisis.

When, in the second half of 2011, the crisis spread to the much bigger economies of Spain and Italy, the policy response at the European level was very strong. During 2012, the new fiscal rules embodied in the European Fiscal Compact (European Union, 2012) and the announcement of the ECB's OMT Program were very successful in finally bringing the crisis down from its peak.

After the policies, reforms and fiscal adjustments undertaken during the previous decade, when the pandemic hit in 2020, Portugal, Spain, Italy, and Greece were again affected, now due to their reliance on tourism and other contact-intensive services, and experienced sudden, deep recessions. However, even as tax revenues sank, the robust and early ECB's Pandemic Emergency Purchase Programme allowed governments to implement sizable recovery packages without triggering the acute market pressures of the earlier sovereign-debt crisis. As a result, instead of diving into a recessive spiral, their GDPs started to rebound as soon as the third quarter of 2020 (in the case of Greece, only in 2021). They reached their 2019 levels in 2022 (Portugal and Spain) or in 2023–2024 (Greece and Italy). Ireland was a different case, with its multinational-driven pharmaceutical and digital sectors sustaining strong growth in exports and GDP throughout the pandemic.

In 2021–2022, the supply-chain disruptions caused by the pandemic and the sharp increases in the prices of energy and food that followed the war in Ukraine generated high inflation across the GIIPS economies, though Spain, Portugal, Italy and Greece were able to mitigate real-income losses through targeted government interventions. Ireland also faced elevated inflation, but strong employment growth and continued investment softened its impact on household incomes. Across these countries, the post-pandemic recovery in tourism and the rollout of the EU recovery funds for public investment (NextGenerationEU, 2025) supported growth during the inflationary period.

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