

# PP440E–Case study

## The Greek Fiscal Tragedy<sup>1</sup>

### Background reading

- IMF Report on the Greece 2010 bailout:  
<https://www.imf.org/external/pubs/ft/scr/2013/cr13156.pdf>
- Aftereffects of the Olympic Games on Greek economy:  
<https://www.businessinsider.in/what-the-abandoned-venues-from-the-2004-athens-olympics-look-like-now/articleshow/47899296.cms>

### Academic Articles

- Zettelmeyer, Jeromin and Trebesch, Christoph and Gulati, Gaurang Mitu, [The Greek Debt Restructuring: An Autopsy](#), Economic Policy, Vol. 28, Issue 75, pp. 513-563, 2013
- Barry Eichengreen, Ugo Panizza, [A surplus of ambition: can Europe rely on large primary surpluses to solve its debt problem?](#), Economic Policy, Volume 31, Issue 85, January 2016, Pages 5–49
- Niccolò Battistini, Marco Pagano, Saverio Simonelli, [Systemic risk, sovereign yields and bank exposures in the euro crisis](#), Economic Policy, Volume 29, Issue 78, 1 April 2014, Pages 203–251

### 1. The Origins of the Greek Crisis

Mr. George Papandreou, of the Socialist Party, became the Prime Minister of Greece on October 4, 2009. Mr. Papandreou campaigned for increasing government spending to revive the economy, having inherited a country on the verge of a recession following the financial crisis of 2007-08. However, with high levels of sovereign debt, a soaring fiscal deficit, a pension system that was estimated to run out of funds in a year's time, and a significantly large tax evasion problem, it became quickly apparent that there was not going to be a quick fix to Greece's problem. To understand why, let's have a look at Greece's recent history.

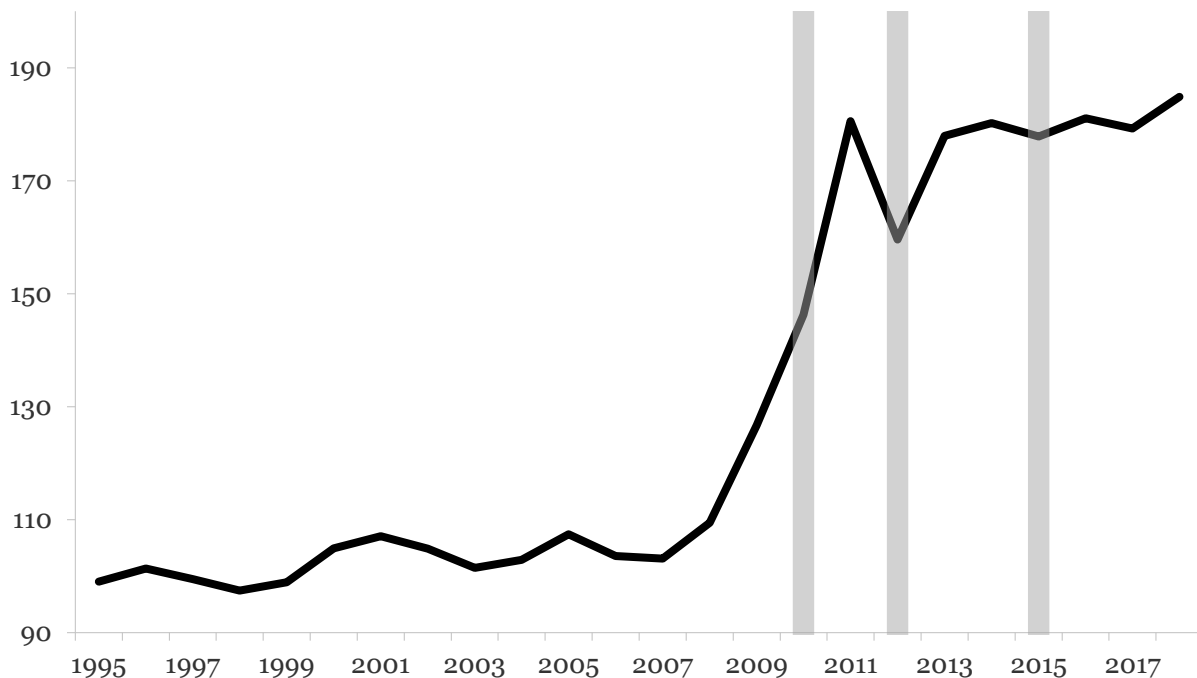
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<sup>1</sup> This Case Study was written by Ethan Ilzetzki and Bhargavi Sakthivel

The Public Debt to GDP ratio for Greece averaged 67% between 1981 and 1999, although there was a steady increase since the mid-80s<sup>2</sup>. The 1992 Maastricht Treaty guidelines dictate that membership into the European Union is conditional on public debt being below 60% of the country's GDP and the budget deficit below 3% of GDP. Greece was granted EU membership in 2001 although debt levels were around 100% of GDP in 1999 (see Figure 1), primarily for political and geo-political considerations.

Irregularities began to appear in 2004 when the incoming government underwent a thorough investigation of its fiscal balances along with actions by Eurostat (the statistical office of the EU). The debt to GDP ratio was 7 percentage points higher in 2004 than previously disclosed and the budget deficit was 3 percentage points higher than the 1.7% of GDP originally reported (See Figure 1 and Table 1)<sup>3</sup>.

**Figure 1:** Greek Government Debt to GDP



This figure plots the annual General government gross debt for Greece as a percent of GDP (Not Seasonally Adjusted). The three vertical lines represent the first bailout package in 2010, the debt restructuring in 2012 and the default on an IMF payment in 2015. Source: International Monetary Fund

<sup>2</sup> "2010–2018 Greek Debt Crisis and Greece's Past: Myths, Popular Notions and Implications". Academia.edu. Retrieved 14 October 2018.

<sup>3</sup> <https://ec.europa.eu/eurostat/documents/4187653/5765001/GREECE-EN.PDF/2da4e4f6-f9f2-4848-b1a9-cb229fcabae3?version=1.0>

**Table 1:** Main revisions of Greek Data between March 2004 and September 2004.

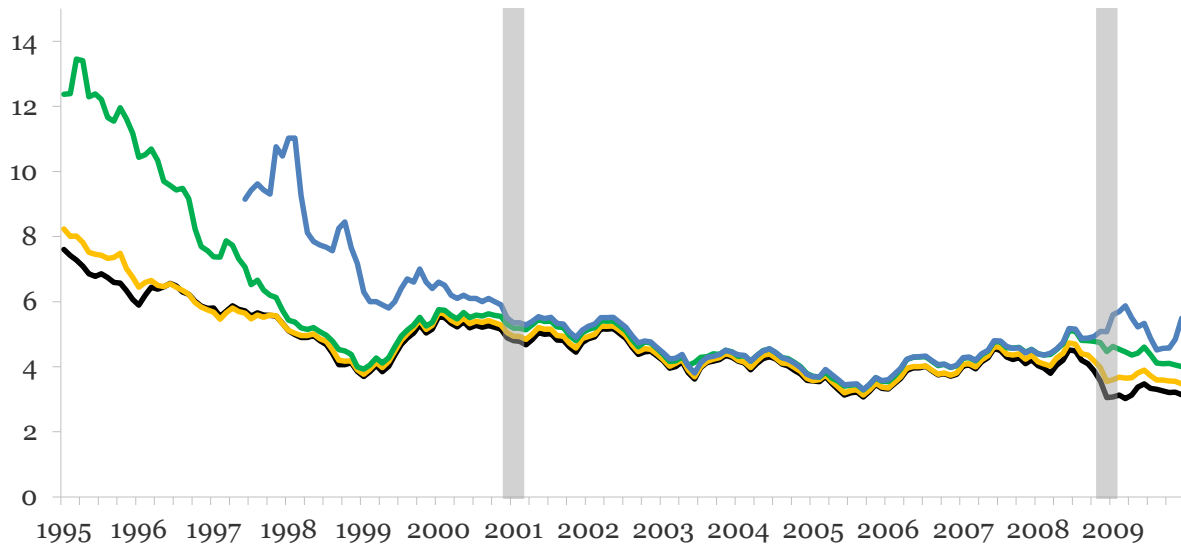
	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
<b>DEFICIT</b>	% GDP	% GDP	% GDP	% of GDP
<b>March 2004</b>	<b>-2.0</b>	<b>-1.4</b>	<b>-1.4</b>	<b>-1.7</b>
Tax revenue				0.9
Payments from the EU				0.3
Reclassification of payments from the Postal Bank				0.2
Military expenditure	1.9	1.2	1.7	0.7
Surplus of Social Security Funds	0.0	1.0	0.4	0.6
Under recording of interest	0.3	0.1	0.1	0.1
<b>September 2004</b>	<b>-4.1</b>	<b>-3.7</b>	<b>-3.7</b>	<b>-4.6</b>
<b>DEBT</b>				
<b>March 2004</b>	<b>106.1</b>	<b>106.6</b>	<b>104.6</b>	<b>102.6</b>
Capitalised Interest	4.5	4.2	3.9	3.4
Consolidating Assets of Social Security	3.2	3.8	3.8	3.7
	0.1	0.1	0.2	0.1
<b>September 2004</b>	<b>114.0</b>	<b>114.7</b>	<b>112.5</b>	<b>109.9</b>

Source: [Eurostat, November 2004](#)

Greece adopted the euro in 2001 and investors flocked to the country under the assumption that the EU would support Greece and ensure its finances were in order. This translated into an expectation that Greece was no longer a high credit risk country and was likely to repay its debts on schedule. This increased demand for Greek government bonds resulted in low borrowing rates (yields) (see Figure 2).

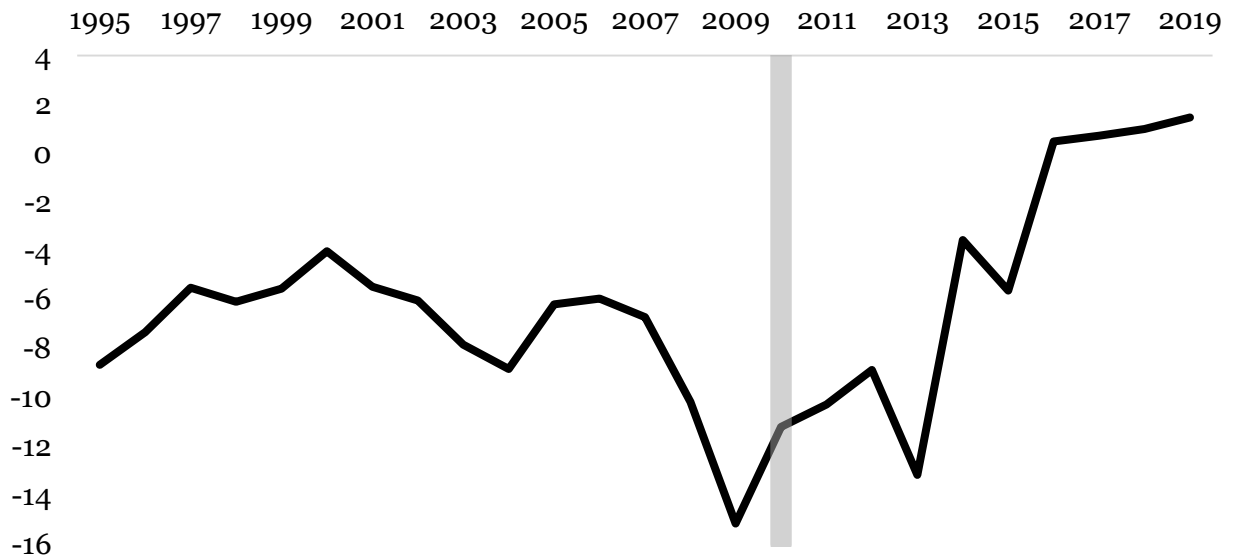
The Greek government's 10 year borrowing rate decreased from 10 percent in 1998 to an average of 4.6 percent between 2001-2009. This, in turn, bolstered trade and facilitated investments fostering economic growth and financed increased government spending. As Figure 2 shows, Greek sovereign borrowing rates converged with those of other Eurozone countries as investors now believed that all Eurozone sovereign bonds were now perfect substitutes.

**Figure 2:** Borrowing rates for selected European governments.

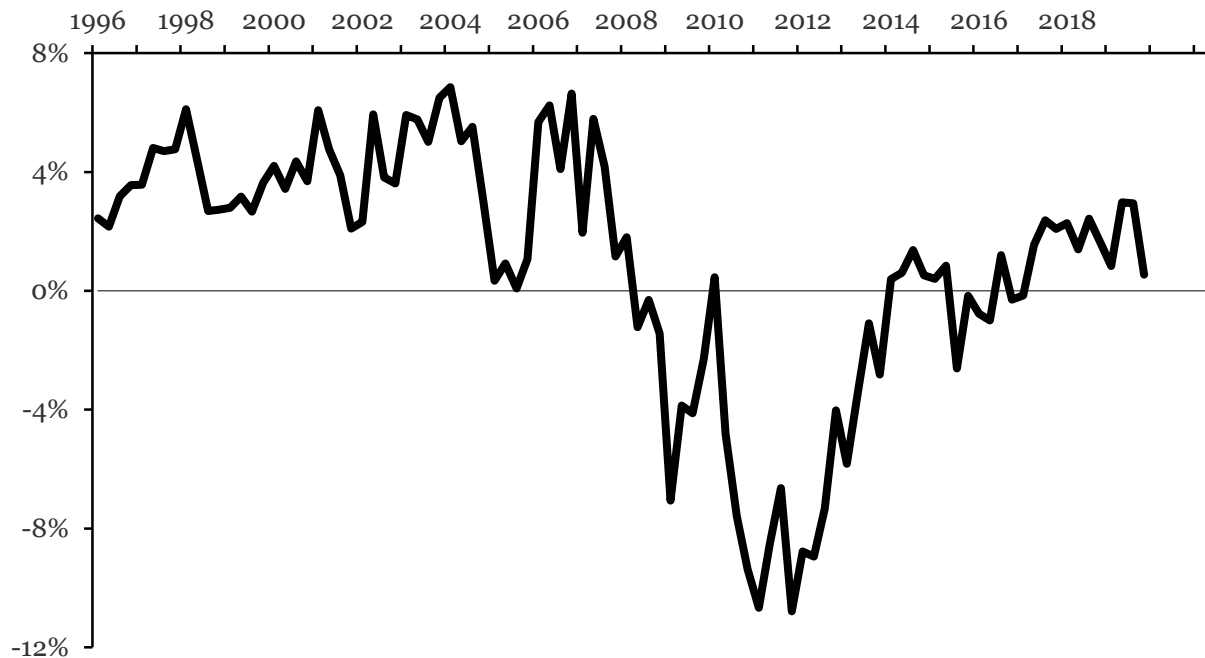


This figure plots 10-year government bond borrowing rates (yields). Black line: Germany, orange line: France, green line: Italy and blue line: Greece. The two vertical lines signal the date Greece joined the Euro Zone and its crisis date in 2010. Source: Organization for Economic Co-operation and Development

**Figure 3:** Greek fiscal balance to GDP



This figure plots the Greek government's fiscal balance: Government deficit (-) or Government surplus (+) (as % of GDP). The vertical line marks the date of the debt crisis. Source: Statistical Data Warehouse, European Central Bank

**Figure 4:** GDP growth, Greece

This figure graphs the annual growth rate of real Gross Domestic Product for Greece. The vertical line marks the date of the debt crisis. Source: Hellenic Statistical Authority.

If Greece's fiscal balances seemed troubled at the beginning of the 21st century, its entry into the EU only exacerbated its problems. Between 2000 and 2008, Greece experienced a period of tremendous growth (see Figure 4) and instead of using this opportunity to reduce its debt to fulfill the Maastricht requirements, the Greek government matched its fast growth rate with equally rapid borrowing, so that fiscal deficits (Figure 3) and debt (Figure 1) continued to grow.

The 2004 Summer Olympic Games held in Greece further contributed to the government's budgetary problems as the finances (which went nearly twice over budget) were spent on infrastructure for the games that was largely not easily repurposed after 2004. In fact, the maintenance costs of some of these unused facilities still have to be paid today!<sup>4</sup>

The EU's Excessive Deficit Procedure (EDP) based on the 1992 Maastricht Treaty on limiting debts to 60% of GDP and deficits to 3% of GDP, put pressure on Greek

<sup>4</sup> <https://www.cnbc.com/id/37484301>

governments to keep fiscal balances in check. Greece concealed part of the government's foreign currency debt using cross-currency swap schemes with big US banks such as Goldman Sachs wherein fictional exchange rates were used to transform government debts and loans of \$1 billion into 'swaps' (derivatives). This wasn't strictly illegal, and Eurostat had to legally make changes to its statistical system and issue a notification to include it in its debt calculations in 2008.

However, while other countries owned up to these unsavory borrowing practices, Greece continued to maintain that "The State does not engage in options, forwards, futures or FOREX swaps, nor in off market swaps (swaps with non-zero market value at inception)." This changed in 2010 when Eurostat sent several teams to Athens to investigate this further and with the cooperation of the incoming new government of Mr. Papandreou, the various interest rate swaps engaged by Greece became common knowledge and required multiple revisions in debt and deficit data for the years 2006 to 2010<sup>5</sup>.

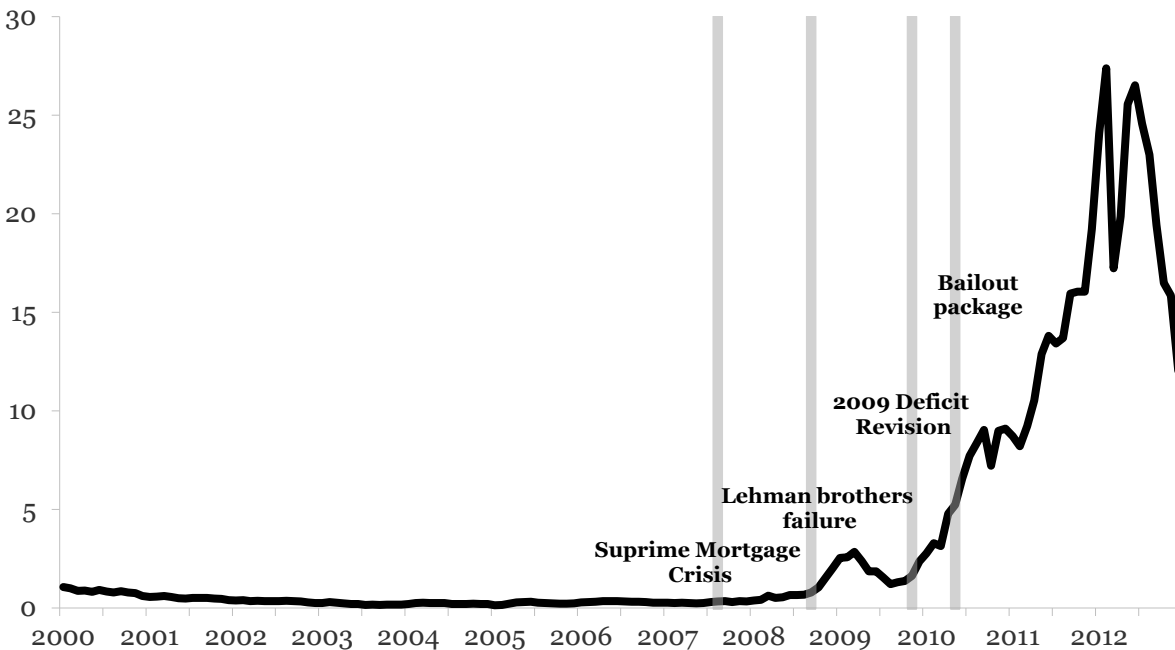
The 2008 financial crisis itself did not affect Greece more adversely than other countries at first. The government's borrowing rates remained low in 2008 as can be seen in Figure 5<sup>6</sup>. Although the failure of the Lehman Brothers' bank, sparking the global financial crisis, caused the spread (the difference between German government's borrowing rate, which remained low and Greece's government borrowing rate) to rise, the spread fell once more by the end of the year. But in October 2009 the newly formed government announced the country's fiscal situation and borrowing rates increased precipitously.

The Eurostat findings of 2010 adjusted the official fiscal deficit from 6% to 12.7%: over 4 times the approved limit under the EDP. This shattered investors' trust and caused widespread panic (see Figure 3). Government debt was by then double the EDP limit of 60%, exacerbating the fear of a default (see Figure 1). The final straw turned out to be the demand for a debt moratorium by Dubai World, a state-backed property venture in the Middle East which further fueled distrust in the ability of Greece to sustain its debt.

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<sup>5</sup><https://ec.europa.eu/eurostat/documents/1015035/3991231//Greece-2010-methodological-visits-report.pdf>

<sup>6</sup> <https://www.bankofgreece.gr/Publications/Paper2011124.pdf>: 10-year benchmark German government bond minus 10-year benchmark Greek government bond

**Figure 5:** Spread between Greek and German 10-year bond yields

This figure graphs the monthly data on the difference in the Long-Term (10-year) government bond borrowing rates (yields) between Germany and Greece. Source: Organization for Economic Co-operation and Development

*"We are aware that we have a very difficult economic and fiscal situation. We are concerned that the international markets are looking at us in a very worried way. We do believe there is a credibility issue here having to do with the policies of the previous government and we're working to correct that lack of credibility. We're committed to fiscal sustainability and we're showing this with a new budget that we have tabled to parliament which reduces the budget deficit by 3.6 percentage points. There will not be a point where the EU will need to come to the rescue of Greece. This is because we are sending the right signals and putting into force the kind of policies that reassure that we are serious about fiscal sustainability."<sup>7</sup>*

- George Papaconstantinou, Finance Minister, Greece (November 2009)

*"We need to move immediately to a new social deal. We must change or sink. Our biggest deficit is the deficit of credibility. Markets want to see action, not words."<sup>8</sup>*

- George Papandreou, Prime Minister, Greece (December 2009)

<sup>7</sup> <http://news.bbc.co.uk/2/hi/business/8387190.stm>

<sup>8</sup> <https://www.nytimes.com/2009/12/15/world/europe/15greece.html>

In mid-December 2009, in response to a downgrading of Greece's bonds by credit rating agencies, the Prime Minister gave a strong speech outlining all the ambitious measures that the government would take in order to bring down the deficit and make debt more sustainable. However, markets remained unconvinced and yields on the Greece bonds continued to rise amid rumours and speculations about an impending default.

The additional funds raised by the Greek government via its sale of 5 year bonds in January 2010 and the various austerity packages from February until May 2010 provided brief respites but they were not sufficient to reduce the spread on the Greek yields which grew to 900 basis points (9 percentage points) by mid 2010. Eventually, on 2 May, a €110bn bailout package from the Eurozone members and the IMF was negotiated by Mr. Papaconstantinou, the Finance Minister. Considered the first bailout package, it unfortunately had a minimal immediate effect on yields.

The actual Greek fiscal balance was identical before and after the announcement of fiscal problems by the newly appointed government in October 2009. The announcement only reinforced investors' beliefs that a sovereign default is likely. The low borrowing rates in the mid-2000s were no longer viewed as justified given the real fiscal balances. And with borrowing rates reaching 30%, the country's debt was unsustainable.

With the 2008 crisis, the Eurostat's visits, and Mr. Papandreou's announcements about the real state of government finances, there was a boomerang effect as yields increased in 2009 causing an extraordinary internal and external imbalance with some wondering whether Greece would have to default while others speculated its exit from the EU.

## **2. The Austerity Programs**

The 2010 bailout package from the ECB and IMF came with strings attached, requiring austerity measures by the Greek government to reduce the deficit and the debt. Confirmed in May 2010 as part of the first memorandum or first bailout package, the 2010 bailout package was also known as the First Economic Adjustment Programme for Greece. It included government employee pay cuts, reform of the public sector, increases in tax rates and changes to the pension system among other measures.

The following years saw neither a revival of growth (in fact one of the greatest recessions on record in any high-income country) nor an improvement in the government's finances. The Hellenic Parliament (Greece Parliament) enacted a total of 14 austerity packages between 2010 and 2017 and the need to turn to the EU and IMF for two additional bailout packages (the second and third memorandum) in February of 2012 and August 2015.



*"The problem we have is home-made. We Greeks are responsible for putting our own house in order.... This shows us that we are in a difficult time. It shows us there's a lot of speculation. It shows us that even rumours can cause a problem. We developed a lot of corruption at the highest levels and we did not take the structural measures to change our economy, to move our economy, to make it more competitive."*

- *George Papandreou, Prime Minister, Greece at World Economic Forum in Davos (January 2010)*

Despite the first bailout package and stringent austerity measures, Greece found itself on the verge of a sovereign default in February 2012. Greek yields had skyrocketed to 3000 basis points and despite the controlled expenditures and the deficit remained around 9 percent of GDP. Some of the reasons commonly attributed to this include high levels of corruption, tax evasion, political discord as Loukas Papademos became the new Prime Minister replacing Papandreou in November 2011 following Papandreou's attempt at holding a referendum on EU's reforms. High unemployment rates, the badly structured pension system and the recession made worse by the austerity measures were all contributing factors.

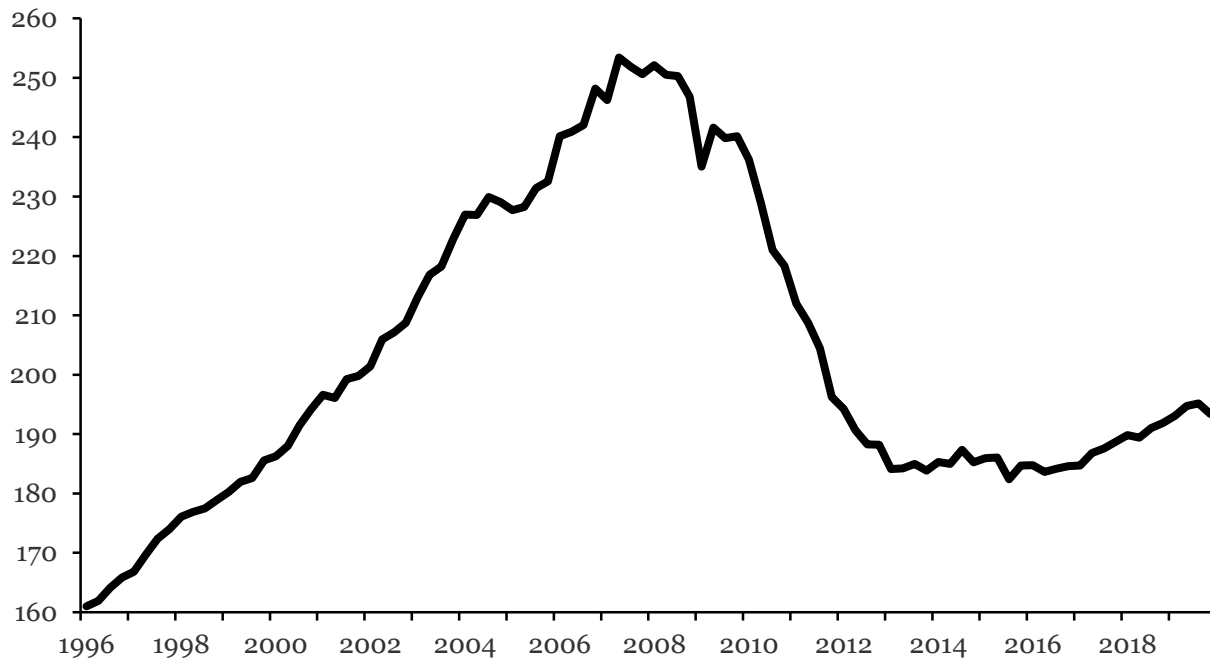
In March 2012 Greece defaulted on approximately 265 billion dollars of its debt. Fears mounted that Greece may default on future payments and many feared Greece would leave the Eurozone. The default resulted in one of the largest **debt restructuring** episodes, a debt relief of over 50% of GDP. After the default, spreads began declining and by mid 2013, spreads had returned to single digits with investors now willing to lend to Greece knowing that the EU and IMF had their back.

Without the bailout package of 2010, the Greek government would have been entirely shut-out of international borrowing, meaning that the government would have to run a balanced budget. Instead, Figure 3 shows that the Greek government was able to run fiscal deficits for several years, aided by the international bailouts. Supporters of the bailouts argued that austerity would have been far worse in their absence and that the bailouts helped Greece eventually regain access to international borrowing markets. They argued that some austerity was necessary to restore the Greek government's credibility.

Opponents argued that austerity was the last thing Greece needed amid a historical recession. Greece accepted its third bailout package only months after the left-wing, anti-austerity Syriza party won a resounding victory accompanied by a strong anti-austerity sentiment in the country. Since 2010, GDP has decreased by 30%, unemployment levels reached a peak of 28% while youth unemployment levels have risen above 55%. A large number of young people had left the country and the poverty rate had risen to 13%.

After defaulting on an IMF payment of \$1.7 billion, Greece was forced to accept further austerity measures in order to secure the third bailout despite the July 2015 referendum in which Greeks vehemently rejected additional austerity measures. With debt standing at 178 percent of GDP, Greece had no option but to accept the package which was accompanied by major debt restructuring where over 50% of the Greek debt was written off.

**Figure 6:** Real Greek GDP (billions € of 2010)



This figure graphs real Gross Domestic Product for Greece. Quarterly data has been annualized. Source: Hellenic Statistical Authority.

By August 2018, Greece had accepted its last installment of the bailout package and had begun to see positive signs of the economy reviving, although it has still didn't recover from the crisis as the global economy entered a new recession during Covid-19 (see Figure 6). With promises to keep the fiscal budget in surplus, Greece still needs to pay back the IMF and ECB the bailout loans. Whether Greece can manage its debts and accounts and grow without needing further debt relief is yet to be seen.

### Glossary

- Default: The failure to repay a loan or debt.
- Yields: Income received on an investment, usually the interest payments.

- Spread: The difference between the yields or borrowing rates of two countries.
- Austerity: Strict economic measures undertaken by a government to reduce its deficit. It includes increasing taxes and decreasing public expenditure.
- Fiscal balance: The difference between a government's revenue and expenditure.
- Speculation: Refers to the practice of engaging in risky transactions to profit from short-term fluctuations in a financial instrument.
- Credit Risk: The risk that a borrower may be unable to repay the debt or loan.
- Basis points: One hundredth of a percent.
- Debt restructuring: An agreement between a borrower and creditor on debt forgiveness, postponement, or new borrowing terms.

### **Discussion Questions:**

1. **Why Greece? Did Greece default due to “fundamental” factors or due to a financial market panic that was disconnected from the realities of the Greek economy?**
2. **What could Greek governments prior to 2009 have done to avoid the crisis?**
3. **Once the crisis hit, did Greek governments have better policy options?**
4. **Was it right for the international community to impose austerity on Greece? Was it the right policy decision for Greece to accept the international bailouts with the attached strings of austerity measures?**
5. **Why do governments borrow in the first place? Would governments be better off if they always had balanced budgets?**
6. **There is no international enforcement of borrowing by governments? Why do governments even borrow to repay their debts?**
7. **Some commentators argue that countries who borrow in their own currency don't have to worry about debts. They argue that the problem in Greece was that it didn't have its own currency and could only borrow in euro, which the government doesn't issue. Do you think this is true?**
8. **How could the international financial system be improved to deal with cycles of debt accumulation and default in some countries?**