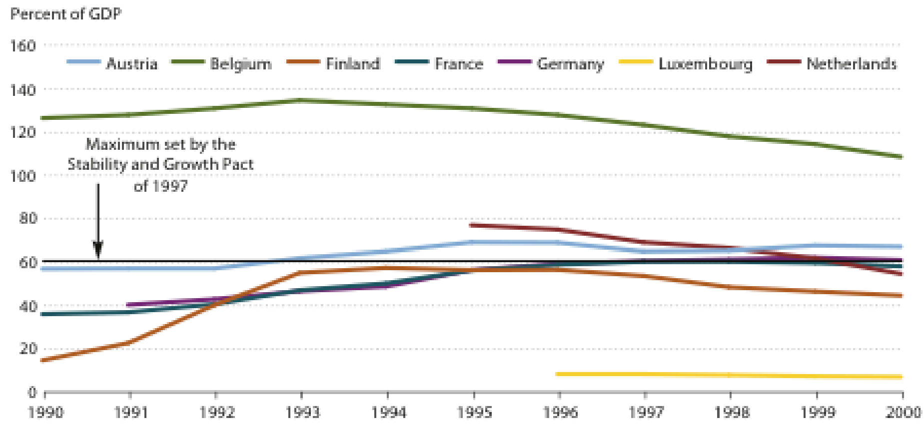
History and Background Information

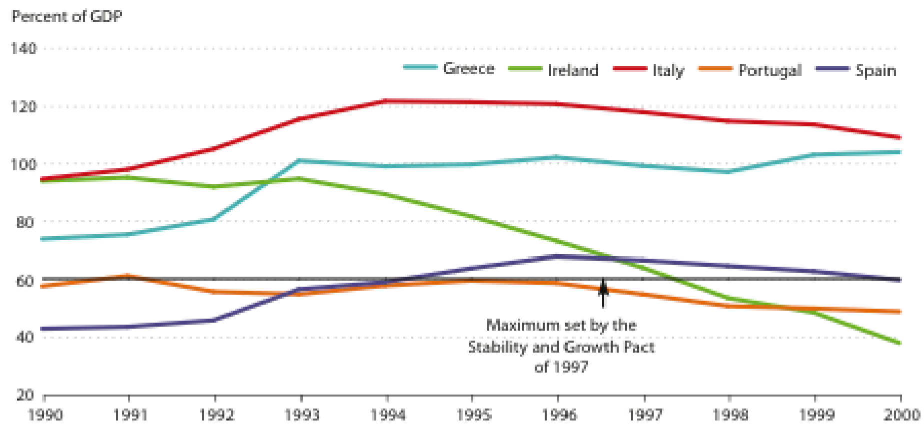
A Brief Explanation of How the Greek Sovereign Debt Crisis Came to Be

In 1998, long before the crisis, Greece was denied entry into European Monetary Union. With high inflation at 5.4%, and a high long-term interest rate of 9.9%, its non-participation in the exchange rate mechanism, and a 6% deficit-to-GDP ratio and a massive debt-to-GDP ratio of 98.7%, it "had met none of the economic criteria specific in the Maastricht treaty or the Stability and Growth Pact" (Martin and Waller, 2012). This was no different from a number of the other nations in the euro zone at the time, as shown in the figures below. However for Greece, the fiscal situation did not improve. Instead of decreasing its debt-to-GDP ratio in order to gain access to the EMU, a move done by countries such as Ireland, Greece increased its debt-to-GDP ratio to 103% by the year 2000 (Martin and Waller, 2012).

A. Gross Government Debt-to-GDP Ratio



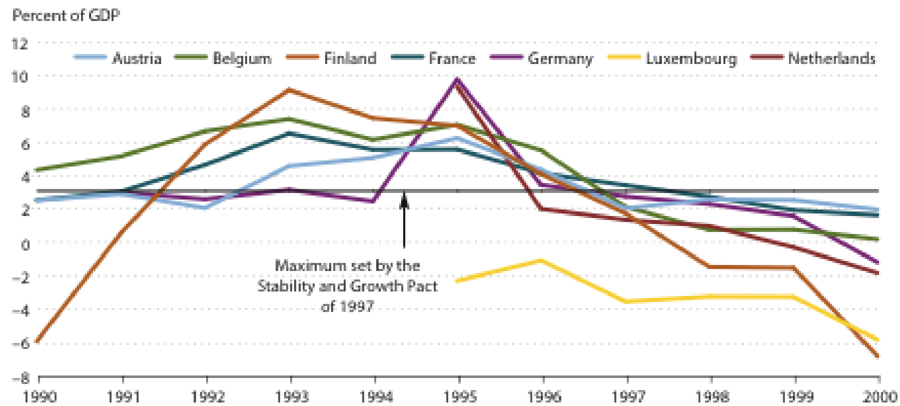
B. Gross Government Debt-to-GDP Ratio (PIIGS)



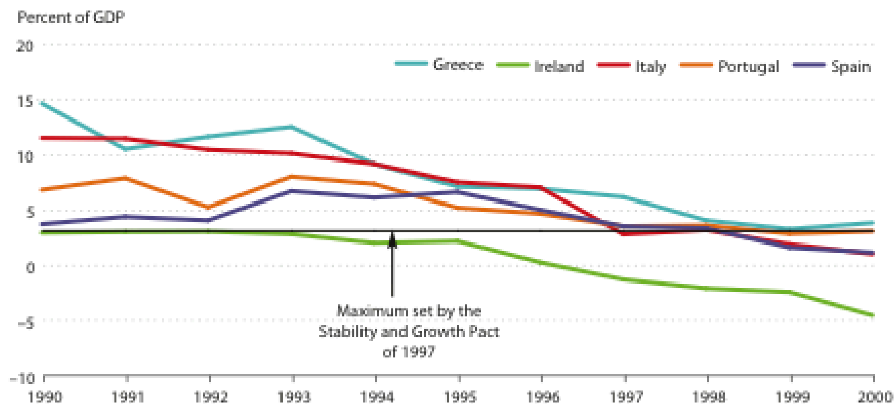
SOURCE: International Monetary Fund, World Economic Outlook Database, April 2012.

Martin and Waller

A. Government Deficit-to-GDP Ratio



B. Government Deficit-to-GDP Ratio (PIIGS)



SOURCE: International Monetary Fund, World Economic Outlook Database, April 2012.

For one reason or another, possibly due to "the euphoria of creating a single currency to compete with the U.S. dollar," Greece entered the euro zone (Martin and Waller, 2012). Upon entry, Greece's debt, along with Spain's debt, Italy's debt, Ireland's debt, and Portugal's debt, became synonymous with the rest of the euro zone in the eyes of investors (Martin and Waller, 2012). The interest rate on Greece's long-term debt had "converged to the rate paid bay Germany and France"

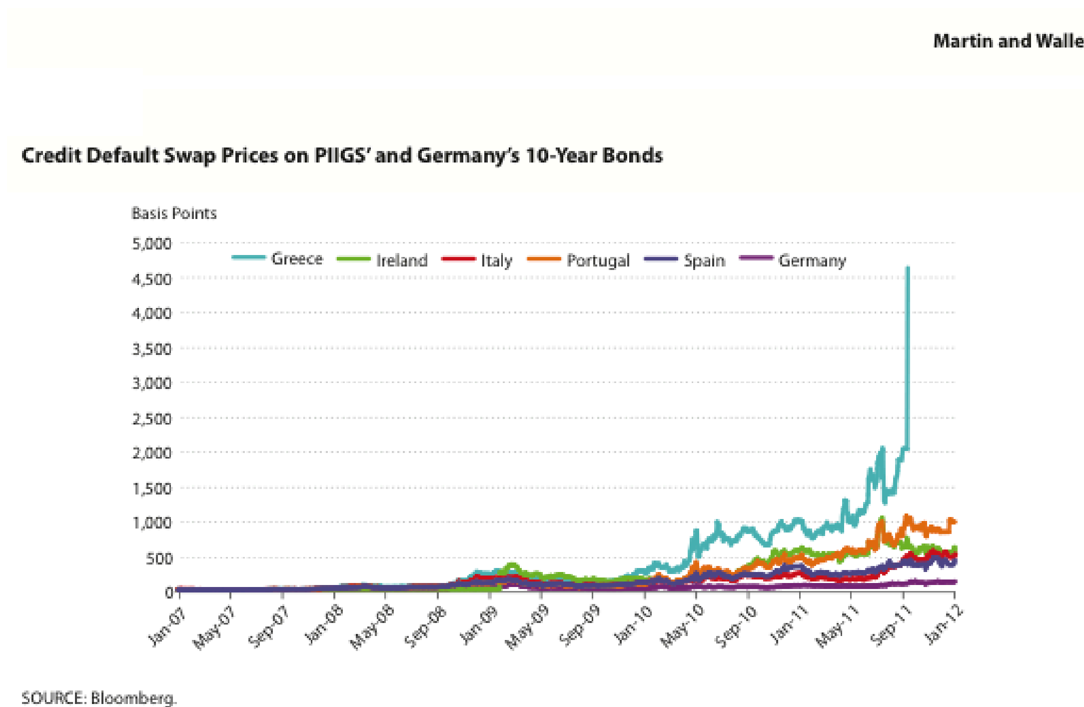
(Martin and Waller, 2012). This occurred in spite of a nonexistent fiscal union and completely varied fiscal situations across the euro zone. Due to the interconnected nature of the euro zone, investors saw the euro zone, particularly Germany, as a form of insurance for sovereign debt coming from countries with riskier fiscal situations, and this sentiment was further reinforced by Germany's long-term political commitment to the European integration project (Arghyrou and Tsoukala, 2010). Concerning the potential for default, investors found the Greek accession into the EMU as "an implicit bail-out guarantee to holders of Greek bonds, with Germany in the role of the guarantor" (Arghyrou and Tsoukala, 2010). Essentially, "markets stopped pricing Greek bonds on the basis of expected fundamentals and started pricing them exclusively on the basis of the best-case scenario, i.e. achievement of full real convergence to German fundamentals" (Arghyrou and Tsoukala, 2010). The extent of this is evident in response to German behavior in the midst of the crisis. The initial surprise that Germany was not eager to immediately back up Greece had major effects on investor confidence in Greek sovereign debt. When Germany surprised the market by extending only conditional aid, the value of Greek bonds plummeted, and it underscores the overly optimistic interpretation of Greece's default risk (Arghyrou and Tsoukala, 2010).

This led to a marked increase in unsound economic policies in both Greece and other euro zone nations. Over the period of 2001-2009, Greece "did not implement sound economic policies, thus allowing further deterioration of fundamentals" (Arghyrou and Tsoukala, 2010). The ability to borrow at the same

rate of interest as Germany induced some European countries to borrow substantially in international financial markets; notably Portugal's debt-to-GDP ratio increased from 48 percent in 2000 to 72 percent in 2008" (Martin and Waller, 2012).

A series of events, starting with the global financial crisis, unraveled the differences between the PIIGS nations and the rest of the Eurozone. After the fall of Lehman Brothers in 2008, "governments in euro area countries launched various initiatives to support their banking sectors (via state guarantees, capital injections and/or loans) and to counter the slowdown in economic growth (via stimulus packages). However, as a result of these measures, the sustainability of public finances in a growing number of countries started being questioned by the market" (Drudi et al, 2012). This reached full force in fall 2009, when the newly elected government performed an audit on the public finances. It had turned out that the public finance situation was misreported. It was previously thought that Greece had a deficit-to-GDP ratio of a little under 4% and an already high debt-to-GDP ratio of 125% (Martin and Waller, 2012). The audit revealed that the deficit-to-GDP ratio was a little under 16%. A series of revisions of the data concerning Greece's public finance situation dating back to Greece's entry into the euro in 2002 led to significant "financial market concerns about the sustainability of Greek public finances" (Drudi et al, 2012). Greek and German debt diverged significantly: "on 10 May 2010 the 10-year yield spread between Greek and German government bonds reached the, at the time, historical high of about 1000 basis points" (Drudi et al, 2012), and between "January 2008 and January 2012, the spreads between Greek

and German debt increased about 3,300 basis points" Investors stopped viewing European debt as perfect substitutes of each other, and "markets began incorporating default risk into the interest rates charged to various governments to roll over their debt" (Martin and Waller, 2012). The figure by Martin and Waller below show the changes in CDS spreads with comparisons between PIIGS nations and Germany.



The higher interests rates for rollover debt caused major problems for Greece. As Martin and Waller (2012) explain, "'rolling over debt" means paying off old debt by issuing new debt. Nearly all nations in the world have outstanding sovereign debt, and they typically roll over the debt when it comes due." When looking at the yield curve of a sovereign debt bond, defined as the relationship between the paid interest and the maturity, the curve's typical shape is "upward

sloping, meaning that the longer the time to repayment, the higher is the interest rate. Simply put, it is much cheaper to borrow for a short period of time than to borrow for a long period of time" (Martin and Waller, 2012). Therefore, governments are motivated to issue short-term debt because it is cheaper. If the debt matures early, governments must roll over their debt more often than long-term debt. However, "governments must face a trade-off – borrow more cheaply but run the risk that the debt will not be rolled over," and "often, default is driven by the markets' unwillingness to roll over existing debt or their willingness to do so only at a prohibitively high cost" (Martin and Waller, 2012). A higher cost of rolling over debt "may occur because creditors believe the debt of a nation is high enough that the government may be unable to levy enough resources to repay its debt" (Martin and Waller, 2012). This explains the higher interest rate for roll over debt for Greece, leading to a sovereign debt crisis.

The rollover issue, and the possibility of default, is a significant domestic issue. Aside from the damage to all aspects of the Greek economy, Greek banks hold around €60 billion of Greek sovereign debt. Considering that this is about 20% of Greece's total sovereign debt, "a Greek default would dramatically weaken the balance sheets of these banks. Thus, markets stopped rolling over the debt of these banks because of fears they would no longer be able to honor their obligations. This, in turn, meant that Greek banks could not roll over funding of Greek government debt" (Martin and Waller, 2012). This is a direct issue to the other euro zone nations, who are major creditors. European banks hold a significant amount of

Greek debt, with German banks holding around about €24 billion in Greek debt French banks holding about €15 billion, 8% and 5% of the total Greek debt respectively (Martin and Waller, 2012). EU leaders feared a default could lead to bank runs in their own banks due to the significant damage to their bank's balance sheets (Martin and Waller, 2012). In response to the roll over issue, "EU leaders, recognizing the gravity of the situation, decided in May 2010 to provide €500 billion in financing to the member countries facing difficulties rolling over their debt. The biggest contributors to the fund were Germany (€120 billion) and France (€90 billion)" (Martin and Waller, 2012).

From this point onward, as investors started to fear Greek bonds, the situation worsened to the point of crisis. The end, because of the rising interest rates, the Greek government began "unpopular austerity measures at home to get their fiscal houses in order. Through a combination of tax increases and reduced spending, Greece's deficit-to-GDP ratio fell from 16 percent in 2009 to a projected 8 percent for 2011…. Although this sounds like good news from the markets' point of view, the severity of the measures also suggested that voters in Greece… might revolt and decide to default rather than bear the costs of austerity" (Martin and Waller, 2012).

Timeline of the Greek Debt Crisis from 2008 to September 2012
(Taken from Bloomberg)

We believe that an extensive summary of all of the events from 2008 until 2012 should be relegated to a full-length analysis and is beyond the scope of this primer. We have instead inserted a timeline of all of the significant events up until September 1st. Readers can find the events that happened up until that date, and look for relevant information according to their interests. The timeline is quoted directly from Bloomberg, and the direct link can be found at:

http://www.bloomberg.com/news/2012-09-05/greek-crisis-timeline-from-maastricht-treaty-to-ecb-bond-buying.html

2008

Sept. 15: Lehman Brothers files for bankruptcy, triggering worldwide market panic.

Sept. 30: Ireland guarantees all deposits and most debt liabilities of its banks. Irish 10-year bonds yields 4.590 percent.

2009

Jan 14: S&P cuts Greece to A- from A. The rating company cites the country's weakening finances as the global economy slowed. Greek 10-year bond yields rise to 5.43 percent the next day.

Oct. 4: George Papandreou leads Socialist Pasok Party to landslide victory in Greek elections, beating New Democracy by the widest margin since 1981 on pledges to boost spending and wages.

Oct. 20: New Greek Finance Minister Papaconstantinou says deficit will balloon to 12.5 percent of GDP in 2009, more than double the previous government's forecast. Yield on Greek 10- year bond 4.58 percent.

Oct. 26: Former head of Greek National Statistics Service says his body "holds no responsibility" for the revision of deficit figures since 2008.

Nov. 5: Papandreou announces first budget. The plan aims to trim the deficit to 9.4 percent GDP in 2010.

Dec. 16: S&P Cuts Greece to BBB+ from A-, three steps above junk.

2010

Jan. 14: Greece adopts three-year plan to bring the European Union's biggest budget deficit within the EU limit in 2012. The same day, ECB President Jean-Claude Trichet said Greece won't win any special treatment from the central bank.

Jan. 21: Papaconstantinou says Greece won't need a rescue package. The yield on Greece's 10-year bond reaches 6.248 percent, a euro-era high.

Jan. 29: EU Commissioner Joaquin Almunia says in Davos there is no 'Plan B' for Greece. "Greece will not default. In the euro area, default does not exist."

Feb. 2: Greek government announces austerity package to get deficit to 3 percent of GDP in 2012.

Feb. 11: EU leaders hold first emergency summit on Greece. EU agrees to take "determined and coordinated action" to protect financial stability of euro area, without giving further details.

Feb. 15: Papaconstantinou says "we are basically trying to change the course of the Titanic. People think we are in a terrible mess. And we are."

March 16: Euro-region finance ministers lay groundwork for making emergency loans available to aid Greece. S&P affirms Greece BBB+ rating and takes it off Creditwatch negative. Papaconstantinou says the EU needs a "loaded gun" to fend off speculators.

March 18: Papandreou calls on EU partners to come up with specific aid measures within a week to help Greece, hints he might seek support from IMF if EU partners don't act.

March 26: Head of Greek debt agency says rescue deal "wipes out the risk of default."

April 8: Greece's 10-year bond yield reaches 7.4 percent, pushing the spread on German bunds to a euro-era high of 442 basis points.

April 12: Euro-area finance ministers agree to provide up to 30 billion euros of loans to Greece over the next year with the IMF agreeing to put up another 15 billion euros in funds.

April 21: Greece, facing 8.5 billion euros in bond redemptions the following month, begins talks with the EU, the ECB and the IMF on conditions tied to 45 billion-euro in aid.

April 22: The EU revises Greece's 2009 budget deficit to 13.6 percent of GDP, higher than the government's previous forecast of 12.9 percent. Ireland overtakes Greece as the EU nation with the largest deficit with its shortfall revised to 14.3 percent. Moody's cuts Greece one level to A3.

April 23: Papandreou asks EU for a 45 billion-euro bailout from the EU and IMF, calling it a "a new Odyssey for Greece." "But we know the road to Ithaca and have charted the waters," he added, referring to the return of mythological hero Ulysses to his island home.

April 27: S&P becomes first rating company to cut Greece to junk, downgrades Portugal to A-.

May 2: Euro-region agrees on a 110 billion-euro rescue package for Greece. Greece agrees to 30 billion euros in austerity cuts over the next three years in exchange for the aid.

May 3: The ECB says it will indefinitely accept Greek collateral regardless of the country's credit rating.

May 5: Protests in Athens against the government's austerity plans turn violent and three people are killed when they become trapped in a bank set ablaze by demonstrators.

May 6: Greek Parliament approves deficit cuts. Greek 10-year yields reach 12 percent the next day.

May 7-8: European leaders agreed to set up an emergency fund to stem the sovereign crisis and said the workings of the financial backstop will be hammered out before the markets open May 10.

May 9-10: EU finance chiefs, in a 14-hour overnight session in Brussels, agree to set up a 750 billion-euros rescue mechanism for countries facing financial distress and the ECB said it will buy government and private debt in the biggest attempt yet to end the sovereign-debt crisis. The meeting gives birth to the European Financial Stability Facility, the region's temporary bailout mechanism, with initial capital of 440 billion euros.

May 18: Greece receives its first bailout loan for 14.5 billion euros, one day before 8.5 billion euros in bonds come due. June 23: Greek 10-year bond yield closes above 10 percent for first time in euro's history. June 14: Moody's cuts Greece to junk. July 13: Greece returns to bond markets for first time since bailout, selling 1.62 billion euros of six-month bills.

Oct. 4: Greece announce draft budget plan to cut the deficit to 7 percent of GDP in 2011.

Nov. 28: EU agrees to 85 billion-euro bailout for Ireland.

2011

Jan. 14: Fitch follows S&P and Moody's in cutting Greece to junk.

March 11: EU summit agrees to expand powers of EFSF to allow it to buy debt in primary markets and tap its full 440 billion euros in firepower. EU also reaches preliminary agreement to cut the rates on emergency loans to Greece by 100 basis points for first three years and extend maturities of the loans to 7.5 years.

April 6: Portuguese Prime Minister Jose Socrates requests EU bailout.

April 15: Papandreou announces 76 billion euros of austerity measures, later increased to 78 billion euros, running through the end of 2015. The program pledged to raise 50 billion euros from state asset sales and aims to cut the budget deficit to 1 percent of GDP in 2015.

May 6: Finance ministers from Spain, France, Germany and Italy hold unannounced meeting in Luxembourg that prompt press reports that Greece will leave the euro. Trichet walks out, refusing to attend any meeting that discusses Greek haircuts. Luxembourg Prime Minister Jean-Claude Juncker, who chairs finance ministers' meetings, says possible further aid for Greece was discussed.

May 9: S&P cuts Greece two levels to B from BB-, threatens further cuts.

May 13: EU publishes new debt and deficit forecasts and predicts that Ireland, Portugal, Greece will all have debt of more than their total GDP in 2011.

May 16: EU approves 78 billion-euro bailout for Portugal

May 17: European finance ministers for the first time float the idea of talks with bondholders to extend Greece's debt-repayment schedule.

May 24: Greece announces details on additional 6 billion euros of 2011 budget cuts and a plan to speed asset sales. ECB governing council member Christian Noyer says Greek restructuring would be "horror story."

May 27: Greek Cabinet passes another 6 billion euros in austerity measures and gives some details on planned assets sales.

June 7: EU Monetary Affairs Commissioner Olli Rehn says June may be the "beginning of the end" of the crisis.

June 13: S&P Cuts Greece to CCC, the lowest rating for any country it reviews in the world.

June 15: Papandreou announces Cabinet reshuffle and confidence vote.

June 17: Papandreou appoints Defense Minister Evangelos Venizelos to replace Papaconstantinou as finance minister.

June 22: Papandreou survives confidence vote in his government.

June 30: Greek lawmakers approve the 78 billion-euro austerity plan after two votes in two days marred by violent protests outside parliament.

July 21: EU summit passes second bailout package for Greece and agrees to expand the powers of the EFSF. Bankers agree to take losses of 21 percent on the net present value of their Greek bond holdings.

Aug. 16: Finland and Greece strike agreement on collateral to guarantee bailout contributions. The agreement was opposed by other euro members such as Austria and the Netherlands and had to be re-negotiated.

Sept. 2: Inspectors from the European Union, European Central Bank and International Monetary Fund suspend Greece's fifth review after finding delays in the implementation of the medium- term fiscal plan and structural economic reforms. Spain adds budget-discipline amendment to constitution, the second change in its 30-year history.

Sept. 11: Papandreou approves new emergency measures to plug a gap in the budget for 2011.

Oct. 2: Greece's government approves the draft budget for 2012, which targets a deficit of 8.5 percent of gross domestic product, and announces it will miss revised deficit target for 2011.

Oct. 11: Troika releases statement on fifth review of Greek economy and suggests the sixth tranche of the bailout payments worth 8 billion-euro will be paid.

Oct. 21: Papandreou wins parliamentary approval of latest austerity bill, which includes wage and pension cuts and plans to lay-off 30,000 state workers. His

majority falls by one lawmaker to 153 after he expels Louka Katseli for voting against one of the articles. EU, ECB, IMF issue draft sustainability report on Greece saying debt dynamics remain "worrying." Oct. 23: European leaders say a summit on the euro crisis won't produce decisions and set another meeting for Oct. 26. Greek 10- year yields trade at 25 percent.

Oct. 26-27: EU leaders hold 14th crisis summit in 21 months. After more than 10 hours of talks, leaders agreed to leverage the EU's temporary bailout fund to boost its firepower to 1 trillion euros, force private investors to accept a 50 percent haircut on Greek bonds, push European banks to raise 106 billion euros in new capital, and extend a new aid package worth 130 billion euros for Greece.

Oct. 31: Papandreou stuns EU politicians and Greek lawmakers by calling a referendum on the second bailout agreement. MF Global Holdings Inc. declares bankruptcy after bets on sovereign debt backfire.

Nov. 1: Stocks and bonds plunged worldwide on concern an unsuccessful referendum will push Greece into a disorderly default. The yield on Greece's two-year bond rises to a record 84.7 percent. Mario Draghi succeeds Trichet as ECB president.

Nov. 2: European leaders cut off aid payments to Greece and say Greece must decide soon whether it wants to stay in the euro. The ultimatum is at odds with the Maastricht Treaty's assertion that monetary union is "irrevocable."

Nov. 3: Papandreou backs down on euro referendum.

Nov. 6: Papandreou agrees to step aside to make way for a government of national unity. Nov. 11: Lucas Papademos, a former ECB vice president is sworn in as prime minister of a Greek unity government.

Dec. 5: S&P puts Germany, France and 13 other euro-area nations on review for a downgrade.

Dec. 8: The ECB cuts its benchmark rate back to a record low of 1 percent and offers banks unlimited cash for three years. It also eases collateral rules.

Dec. 9: Leaders complete all-night talks in Brussels on a "fiscal compact," sparking a split with the U.K. Euro governments add 200 billion euros to their crisis-fighting war chest, tighten rules to curb future debts and speed the start of a 500 billion-euro permanent rescue fund to next year. Draghi welcomes the decisions, without signaling any willingness to step up bond purchases. Greek 10-year bond yield at 32 percent. Italian 10-year bond yield at 6.47 percent. Spanish 10-year bond yield at 5.77 percent. German 10-year bond yield at 2.07 percent.

2012

Feb. 17: The ECB swaps Greek bonds purchased under the SMP for new ones to ensure it isn't forced to take losses in a debt restructuring.

Feb. 21: Euro-area finance ministers reached agreement on a second bailout package for Greece. The deal includes a 53.5 percent writedown for investors in Greek bonds.

Feb. 25: Greece formally asked investors to exchange their holdings of government debt for new securities in the biggest sovereign restructuring in history. The bonds subject to the invitation had a total face value of about 206 billion euros.

Feb. 27: Greek credit rating cut to "selective default" by Standard & Poor's. March 1: Greece's parliament completes vote on cuts needed for bailout.

March 2: EU leaders declare end of financial crisis, turn attention to growth.

March 9: Greece reaches target in debt restructuring with 95.7 percent participation rate among investors.

April 23: Dutch government falls on disagreements over austerity measures within ruling coalition.

May 2: Standard & Poor's removes selective default, rates Greece CCC.

May 6: Greece holds elections with anti-bailout party Syriza finishing a surprise second to New Democracy's Antonis Samaras. Francois Hollande elected as French president.

May 10: Spain partly nationalizes Bankia SA.

May 15: Greek coalition talks fail, leading to new elections.

June 9: Spain requests 100 billion euros of EU loans to prop up its ailing banks.

June 17: New Democracy party led by Antonis Samaras wins Greek elections, falling short of majority in parliament.

June 20: Samaras forms coalition government with opposition Pasok party, sworn in as prime minister. June 25: Cyprus requests EU bailout.

June 28-29: EU leaders agree to ease terms of Spanish bank loans and pave the way for bond buying by the region's rescue funds.

July 4: Hollande announces budget plan that includes 7.2 billion euros of tax increases.

July 5: Ireland sells Treasury bills for first time in almost 22 months

July 26: Draghi says ECB will do whatever it takes to protect the euro, triggering a rally in stocks and bonds. Ireland returns to bond market for first time in 22 months.

Aug. 2: Draghi signals ECB prepared to move forcefully into bond markets in tandem with Europe's rescue funds and would concentrate on buying shorter-term debt.

Aug. 3: Spanish Prime Minister Mariano Rajoy says he may request EU bond buying if it's in Spain's interests.

Sept. 1: Spain's bank rescue fund to inject as much as 5 billion euros into Bankia group after nationalized bank reports 4.5 billion-euro first-half loss.

Topics and Issues

Responses to the Crisis from the Euro Zone and the IMF – Rescue Packages with Strings Attached

From the get go, "European leaders, the IMF, and the ECB agreed that an uncontrolled, disorderly default on Greek debt would be extremely risky and should be avoided at all costs. They feared that such a default could spark a major sell-off of bonds of other Eurozone members with high debt levels and that European banks exposed to Greece and other Eurozone governments would not be able to weather losses on those investments (Nelson et al, 2010)." From the start of the crisis until late 2011, there have been two rescue packages. Both of them have been successful in avoiding Greek default (Nelson et al, 2010).

The first rescue package came around in May 2010. The crisis response "focused on financial assistance from the Eurozone and the IMF, paired with austerity measure and reforms implemented by the Greek government," while "central banks also played a role in providing liquidity in the region" (Nelson et al, 2010). The package, coming from Eurozone leaders and the IMF, is a three year long package consisting of €110 billion worth of loans at market-based interest rates (Nelson et al, 2010). €80 billion of that amount was to be posted by the Eurozone, while the rest was to be posted by the IMF. Unsurprisingly, the package was conditional upon austerity measures and other economic reforms (Nelson et al, 2010). A further outline of Greece's austerity measures will be in the next few sections.

Central banks also brought their aid to Greece. "The ECB announced in May 2010 that, for the first time, it would start buying European government bonds in

secondary markets to increase confidence and lower bond spreads for Eurozone bonds under market pressure" (Nelson et al, 2010). For example, the ECB purchased €45 billion worth of Greek bonds from May 2010 to June 2011, and the ECB has provided €98 billion worth of liquidity support as of May 2011 (Nelson et al, 2010).

The second rescue package came around the summer of 2011, again with a new set of austerity measure and economic reforms, the most drastic of the reforms being "an ambitious privatization and public real estate development program designed to raise €50 billion by 2015" (Nelson et al, 2010). This was in response to an increased possibility of Greek debt default. With that, the package brought €109 billion worth of assistance with a lower interest rate and with longer maturities than the first package (Nelson et al, 2010).

While much of the disaster has been thwarted by the rescue packages, the packages have failed to spur long-term growth. If Greece is to see a true recovery, policy makers will need to consider other actions than simply rescue packages with strings attached (Nelson et al, 2010).

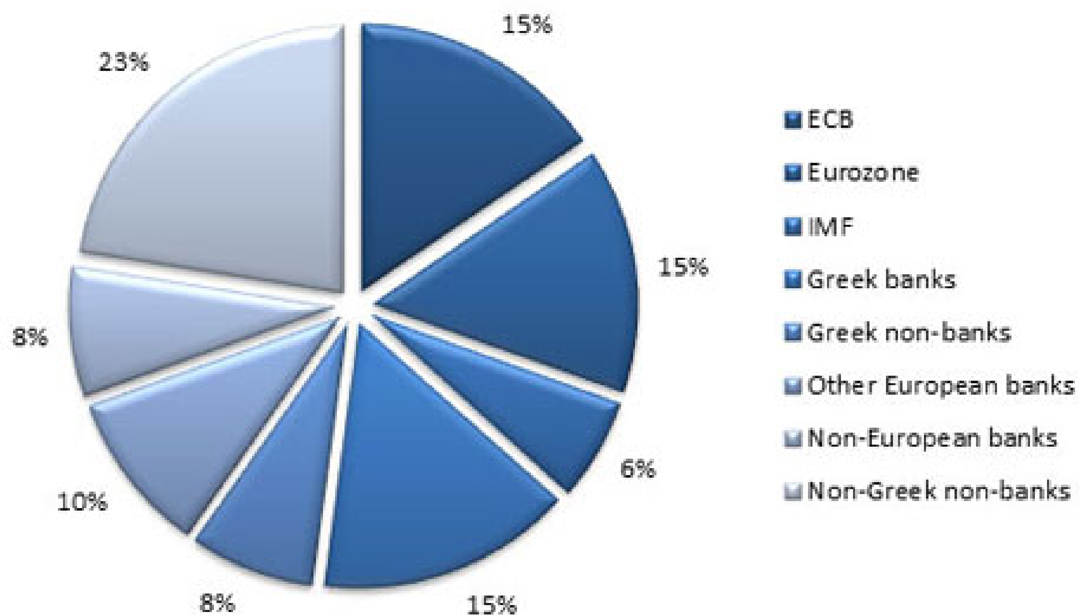
Implications on the Euro Zone

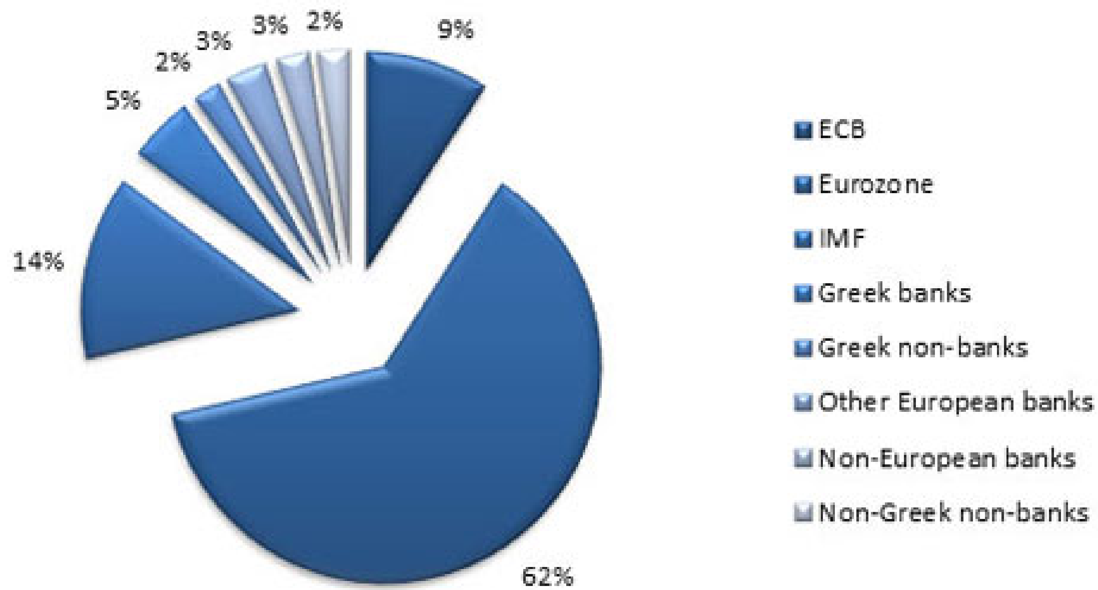
The Greek debt crisis has set a precedent to how the IMF and the euro zone responds to other debt crises within the bloc. The policy response to countries in need of assistance from the euro zone and from the IMF have a template to build off of from the Greek debt crisis, which is a package of financial assistance conditional on austerity and structural reforms (Nelson et al, 2010).

The debt crisis has weakened and continues to weaken the European financial sector (Nelson et al, 2010). As mentioned earlier in this primer, European banks hold a significant amount of Greek debt, with German banks holding around about €24 billion in Greek debt French banks holding about €15 billion, 8% and 5% of the total Greek debt respectively (Martin and Waller, 2012). In fact, "several large European banks, such as BNP Paribas, Société Générale, Deutsche Bank, UniCredit, and Intesa, are believed to be major private holders of Greek bonds. There have been continuing concerns about how these banks would be able to absorb losses on Greek bonds should Greece default or restructure its debt, particularly given widespread concerns that European banks may be undercapitalized" (Nelson et al, 2010).

The debt crisis in Greece, and the need to buoy the nation and its economy, has increased the financial liabilities for members of the euro zone (Nelson et al, 2010). Greece has received bilateral loans from euro zone countries, and these countries have commitments to the European Financial Stability Facility, which could make significant increases in the debt levels committed to the EFSF, a sizable

problem for European nations still trying to deal with their own fiscal and economic issues (Nelson et al, 2010). To further illuminate the effect of these increasing liabilities, we introduce two figures. These figures, cited from http://blogs.telegraph.co.uk/finance/matspersson/100015389/in-2015-85-of-greeces-debt-will-be-owned-by-european-taxpayers/, made by Open Europe, an independent think tank, offers an estimate of who will one day own Greek debt. The marked change from 2011 to the estimated 2015 shows that European taxpayers will own a majority, 62%, of the Greek debt.



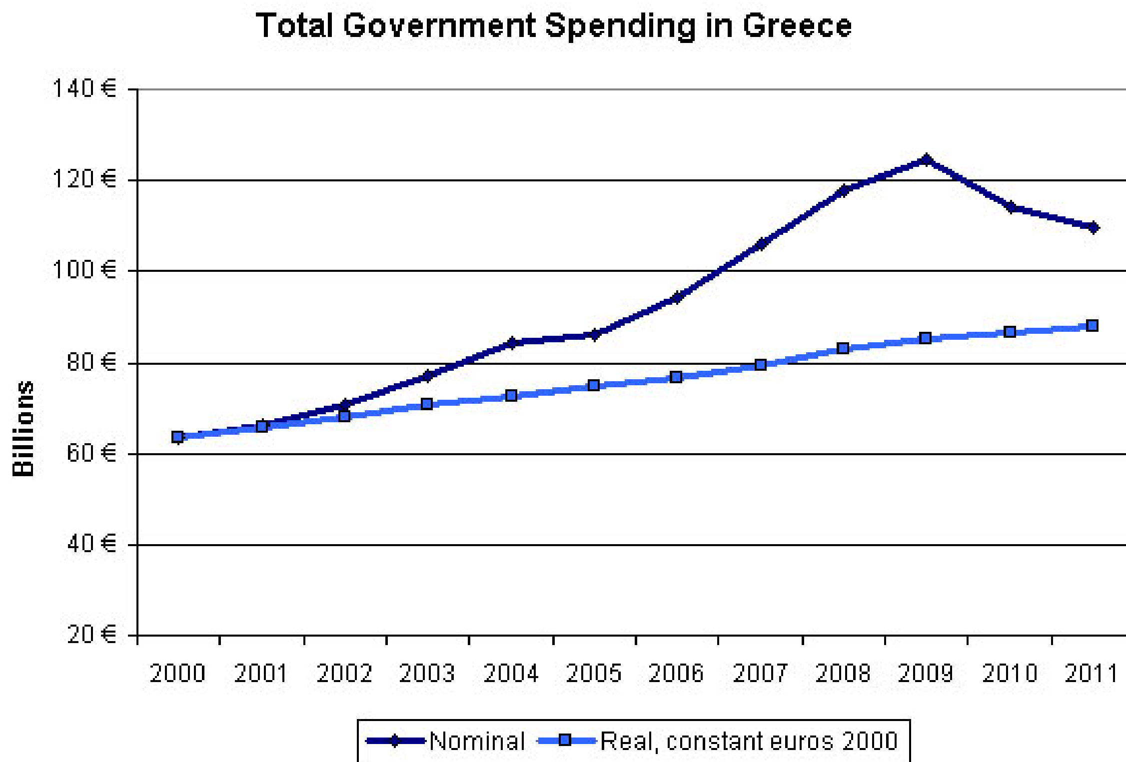


Finally, and importantly, the Greek debt crisis has damaged the solidarity of the European Union, and has opened disagreement throughout the euro zone concerning what constitutes integration (Nelson et al, 2010).

Euro Zone Exit

There is some discussion on both sides of the debate as to whether a euro zone exit would be a sensible option. Proponents of a euro zone exit argue this on the grounds of a free and devalued currency. The new currency would be devalued against the euro and would therefore increase exports for the Greek economy, leading to spurred economic growth. Opponents of an exit argue that an exit would lead to a major financial crisis. Opponents also argue that such an exit would also raise value of the national debt, which is denominated in euros (Nelson et al, 2010).

Austerity



In Greece, austerity has meant a combination of tax hikes and reductions in government spending. According to OECD data, government spending in Greece had grown at an annual rate of 7.8% a year from 2000 until 2009, growing from 70 billion euros per year to 124.6 billion. Since 2009, government spending has been trimmed to 107.7 billion in 2011, 8.2% in 2010 and 4.1% in 2011.

In October 2012, Greece's government also offered a draft budget for 2013, which would include about $10 billion in spending cuts a, with reductions in social welfare spending, public sector employee pay, and raising the retirement age from 65 to

67. [i]

Since 2010, Greece has attempted to manipulate the tax code to both stimulate the economy and generate revenue. In 2011, Greece implemented a new "solidarity tax" of 2-5% of earnings as well as new property taxes and a higher value added tax. The value added tax ranges from 4.5 to up to 23% for certain industries, including restaurants, cafes, and hotels.[ii]

There is one major problem that has gripped Greece for years: tax evasion. It has been estimated that approximately 28 billion euros annually in taxes are not being reported by Greece's self-employed (e.g. cab drivers).[iii]

With the hope of improving economic competitiveness, the Greek government reduced the corporate tax rate from 24% to 20%.[iv]

In a December 2011 conference call, IMF European Deputy Director Paol Thomsen, however, made it known that expenditures, not taxes, should be the focus of reforms: "Certainly, our view is—as you know—that there is a need to re-focus the fiscal program on the expenditure side. That we have, if you like, in our view, too much on taxes. And I think one of the things we have seen during 2011 is that we have reached the limit of what can be achieved through increase in taxes, and that any further measures, if needed, should be on the expenditure side, and the revenue side."[v]

Unemployment

Since 2008, the Greek unemployment rate has grown from 7.4% in July 2008 to now 25.1% according to Eurostat. Among the consequences has been a 20-25% increase in homelessness.[vi]

Regulatory Hurdles

A March 2012 New York Times article told the story of Fotis Antonopoulos, who spent 10 months "crisscrossing the city to collect dozens of forms and stamps of approval" in order to open an online olive selling business. Among the more…interesting…regulatory hurdles was the requirement that all of his board members "submit lung X-rays—and stool samples—since this was a food company."[vii] The article also notes that in 2011, "at least 68,999 small and medium-size businesses closed…nearly 135,000 jobs associated with them also vanished."

The Public Sector

According to Kollintzas, Papageourgiou, and Vassilatos (2012) the Greek crisis has largely to do with the conflicting interests of "insiders and outsiders." The insiders being those who are benefiting from the status quo system of high deficit spending and low growth---(unionized) public servants, the media, and "regulated

professions" that are able to skirt taxes. "Outsiders" are everyone else---an unorganized group that doesn't have much political or economic power. Among the consequences of this division, the argument goes, is deficit government spending to pay for high public sector wages and benefits to the large and union organized public sector. Further, high regulation meant to benefit "insiders" renders the economy uncompetitive, which also benefits the insiders who are able to evade taxes and bypass regulations.

According to the BBC, between 1999 and 2007, public sector wages rose 50%. Since 1981, the number of public sector employees has more than doubled, from 300,000 to currently 700,000, approximately 1/5 of the Greek workforce. [viii]

Greece's government spending constitutes more than 50% of GDP. Of this, 27% goes to public sector wages. The New York Times reported on October 11th, 2012, citing Greece's national statistical service, "since December 2009 the number of people working for the government is down 12 percent. But the number of workers in the private sector has dropped by 55 percent." Public sector employees have taken a 13.5% pay cut.[ix]

According to the Economist in January 2012, between 2008 and 2011, GDP has contracted by 12.5%. In this period, the Economist continues, "of the 470,000 who have lost their jobs…not one came from the public sector."[x]

The Greek government has been at best reluctant to cut public sector employees. Included in the first round of bailouts was a requirement that Greece reduce it's public sector workforce by 30,000. The employees, according to the plan, would receive 40% of their salaries for one year after being relieved of their jobs. However, as of August 2012, only 6,500 employees left, and most of them retired and were not subject to the 40% rule.[xi]

In 2012, as part of the deal for the second round of bailout packages, Greece agreed to release 15,000 public sector employees over the course of 2012. This time, however, relieved public sector employees would receive 60% of their final salaries for one year, and an additional 12-month extension would be available. [xii]

The Politics of Greece

When George Papandreou became Prime Minister of Greece in October 2009, his predecessor, from the conservative New Democracy party, had reported to Eurostat that the deficit was 3.7% of GDP. Eurostat, however, found this to be incorrect. The deficit was actually 12.5% of GDP and Eurostat issued a report citing severe irregularities in Greek deficit and debt reporting.[xiii]

The socialist Papandreou, leader of the Panhellenic Socialist Movement (PASOK), would preside over two of the most tumultuous year in recent Greek history. In May 2010, as the Greek parliament government planned to cut spending

and raise taxes in order to secure the first bailout, a Greek general strike turned violent, leaving at least three dead.[xiv]

In 2011, hundreds of thousands of Greeks took to the streets in protest. In June, as the Greek parliament planned on cutting 14 billion euros in spending and raising 14 billion in taxes, the Greeks yet again turned violent for a few days.[xv]

Papandreou would resign on November 11, 2011. Replacing him was economist Lucas Papademos. Papademos would also serve as Prime Minister during periods of civil unrest. In February 2012, buildings were set ablaze amidst a vote on further austerity measures.[xvi]

He would resign in May 2012. His resignation followed a May legislative election in which none of the seven competing parties were able to garner enough votes for a majority or form a coalition government.

In June, a second legislative election would result in a much larger gain for the conservative New Democracy party, which won 129 seats (151 needed for a majority). The ND would form a coalition government with PASOK and DIMAR (the Democratic Left). Coming in second place in the election was the Coalition of the Radical Left (SYRIZA), which campaigned on rejecting all austerity measures tied to bailouts, regardless if it compromised Greece's standing as part of the eurozone.

Also of note is the large gain by the Golden Dawn, a neo-Nazi ultra-nationalist party that, after years of obscurity, gained 18 seats in the Greek legislature.

The Current Situation as of October 25, 2012

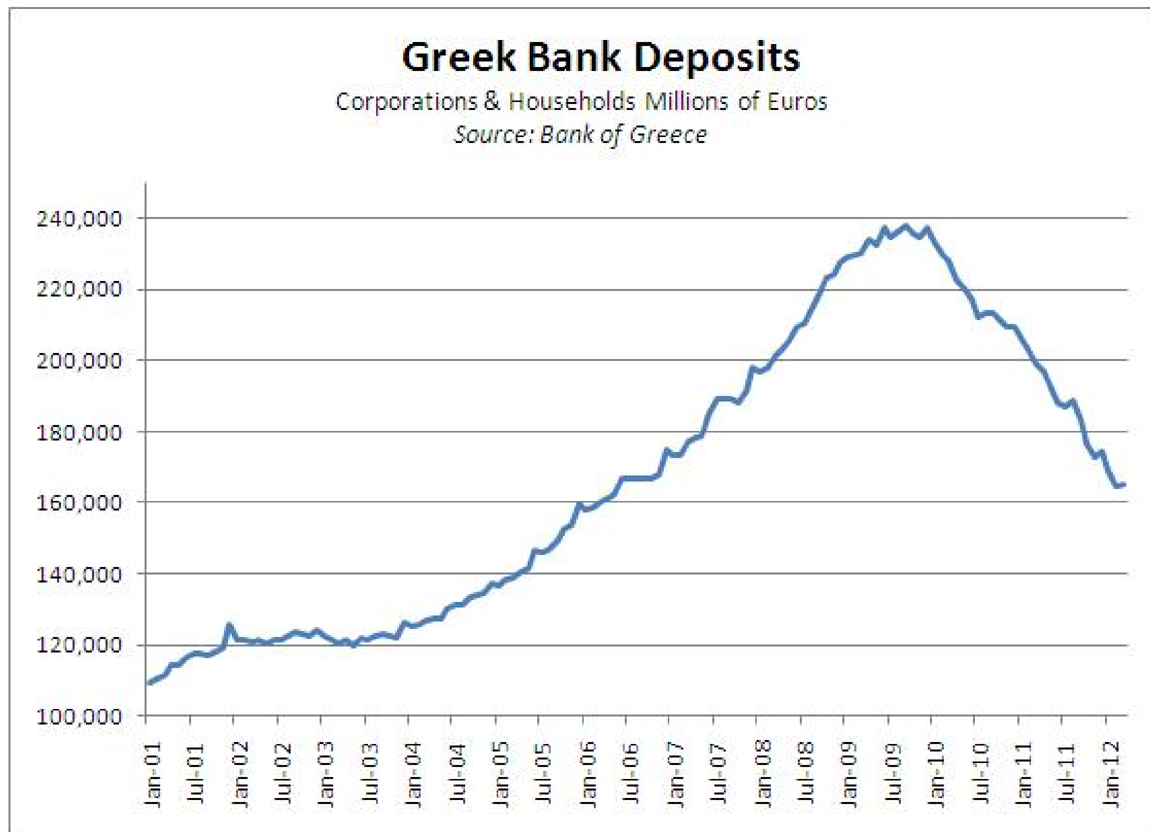
For the most recent updates today see,

http://online.wsj.com/article/SB10001424052970203922804578080141859712364.html?KEYWORDS=greece

http://online.wsj.com/article/SB10001424052970203937004578079070389572866.html?KEYWORDS=greece

http://online.wsj.com/article/SB10001424052970203897404578076451045882508.html?KEYWORDS=greece

Bank Deposits



On October 25th, the Greek central bank reported that "deposits held by domestic residents and companies rose by 0.9 billion euros in September to EUR154.33 billion from EUR153.39 billion in August." This is significantly lower than the 238 billion euros in deposits held in September 2009. Since then, bank deposits have been in free-fall. The deposits fell to 174.2 billion euros by the end of 2011, down 16.8% from 209.6 billion euros in 2010. This is a substantial problem for Greece's banking sector as well as the greater national economy. Greek bank deposits reduced by 5% in May of 2012 amidst fears of Greece exiting the euro

http://online.wsj.com/article/BT-CO-20121025-714943.html
http://www.bloomberg.com/news/2012-06-29/greek-bank-deposits-shrank-5-2-in-may-on-euro-exit-fear-1-.html

Data on Greece (CIA World Factbook)

GDP (purchasing power parity):
$298.1 billion (2011 est.)
$320.1 billion (2010 est.)
$331.7 billion (2009 est.)
note: data are in 2011 US dollars

GDP - real growth rate:
-6.9% (2011 est.)
-3.5% (2010 est.)
-3.3% (2009 est.)

GDP - per capita (PPP):
$26,600 (2011 est.)
$28,600 (2010 est.)
$29,700 (2009 est.)
note: data are in 2011 US dollars

GDP - composition by sector:
agriculture: 3.3%
industry: 17.9%

services: 78.9% (2011 est.)

Labor force:
4.959 million (2011 est.)

Labor force - by occupation:
agriculture: 12.4%
industry: 22.4%
services: 65.1% (2005 est.)

Unemployment rate:
17.3% (2011 est.)
12.5% (2010 est.)

Population below poverty line:
20% (2009 est.)

Investment (gross fixed):
14.7% of GDP (2011 est.)

Budget:
revenues: $129.5 billion
expenditures: $158.6 billion (2011 est.)

Taxes and other revenues:
42.7% of GDP (2011 est.)

Budget surplus (+) or deficit (-):
-9.6% of GDP (2011 est.)

Public debt:
161.7% of GDP (2011 est.)
144.9% of GDP (2010 est.)

Inflation rate (consumer prices):
3.3% (2011 est.)
4.7% (2010 est.)

Debt - external:
$583.3 billion (30 June 2011)
$532.9 billion (30 June 2010)

[i] http://www.nytimes.com/2012/10/02/world/europe/greek-government-submits-budget.html?_r=0
[ii] http://www.economist.com/node/21531513
[iii] Artavanis, Nikolaos T., Morse, Adair and Tsoutsoura, Margarita, Tax Evasion Across Industries: Soft Credit Evidence from Greece (June 25, 2012). Chicago Booth Research Paper No. 12-25; Fama-Miller Working Paper. Available at SSRN: http://ssrn.com/abstract=2109500 or http://dx.doi.org/10.2139/ssrn.2109500
[iv] http://www.reuters.com/article/2011/01/25/greece-taxbill-idUSATH00588920110125
[v] http://www.imf.org/external/np/tr/2011/tr121311.htm
[vi] http://www.reuters.com/article/2011/09/12/us-europe-homelessness-idUSTRE78B6KE20110912
[vii] http://www.nytimes.com/2012/03/19/world/europe/in-greece-business-rules-can-puzzle-entrepreneurs.html?pagewanted=all
[viii] [viii]http://www.bbc.co.uk/news/business-13798000
[ix] http://www.nytimes.com/2012/10/11/opinion/the-cost-of-protecting-greeces-public-sector.html?emc=eta1
[x] http://www.economist.com/node/21542815
[xi] http://in.reuters.com/article/2012/08/09/greece-layoffs-idINDEE8780BX20120809
[xii] http://ec.europa.eu/economy_finance/publications/occasional_paper/2012/op94_en.htm
[xiii]
http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=COM_2010_report_greek
[xiv] http://news.bbc.co.uk/2/hi/8661385.stm
[xv] http://www.bbc.co.uk/news/world-europe-13953077
[xvi] http://www.bbc.co.uk/news/world-europe-17003432