The European Debt Crisis and Its Implications for the United States

CENTRAL to AMERICA'S ECONOMY™

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Disclaimer

Disclaimer: The views expressed are those of the author and do not necessarily reflect those of the Federal Reserve Bank of St. Louis or the Federal Reserve System. Really.

I thank Chris Waller for providing materials from his presentations and Brett Fawley for excellent assistance in putting this presentation together.

The Agenda

- Basics of government budget constraints
- US budget problems and European budget problems
- PIIGS individual problems and the US budget problem
- International comparison of current deficit/debt figures and CDS rates.
- How is euro default different from other countries?
- How did Europe get its current problems?
- Implications of Europe's problems for the United States.

The Government Budget Constraint

- The present value of total expenditures (forever) cannot exceed the present value of taxes (forever).
  - A government doesn't have to balance its budget every year; neither does your family.
  - Governments live approximately forever. (Or something close.)

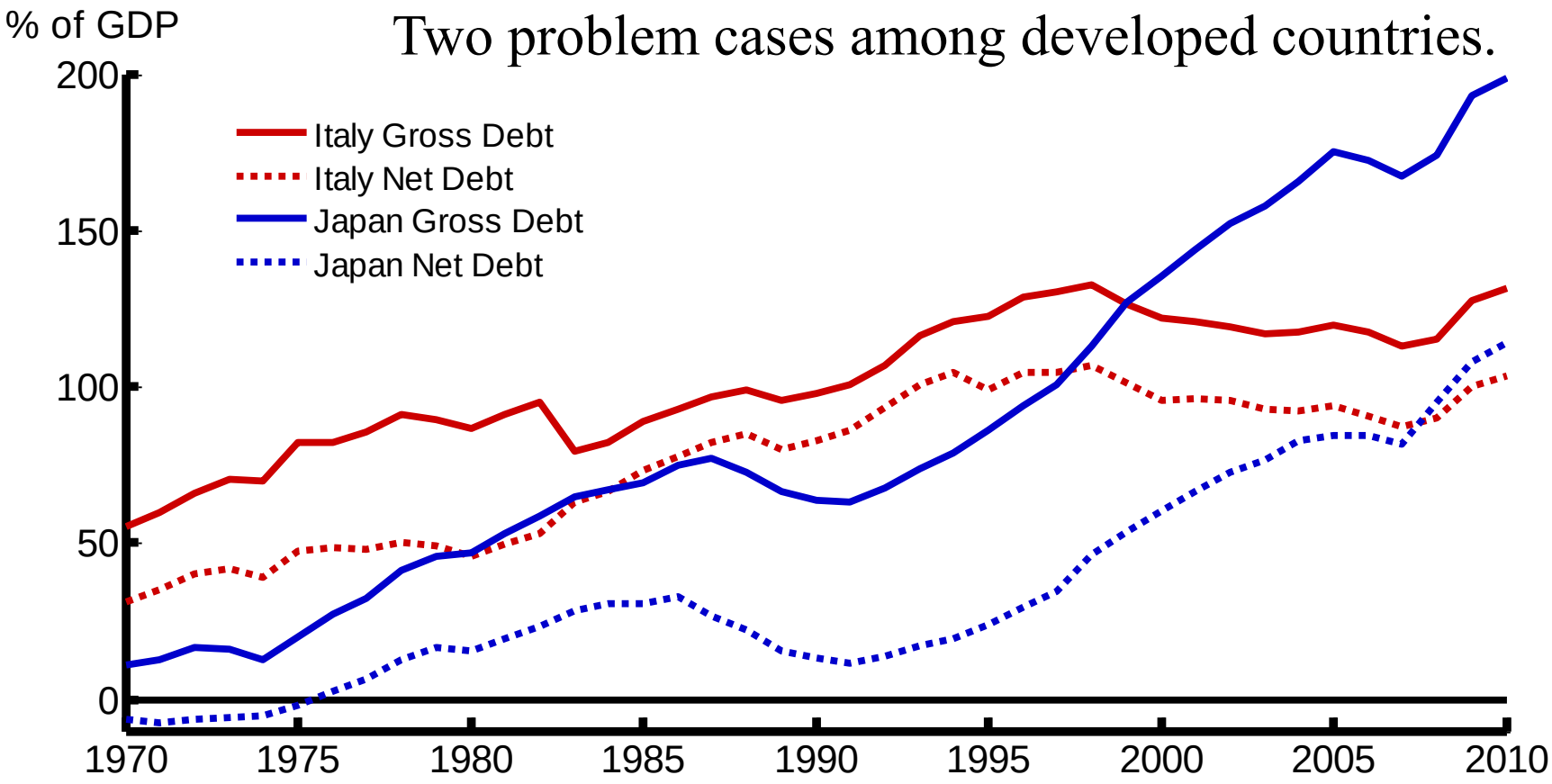
The Government Budget Constraint

- Benjamin Franklin believed in balanced budgets, period by period.
  - "Neither a borrower nor a lender be."

The Government Budget Constraint

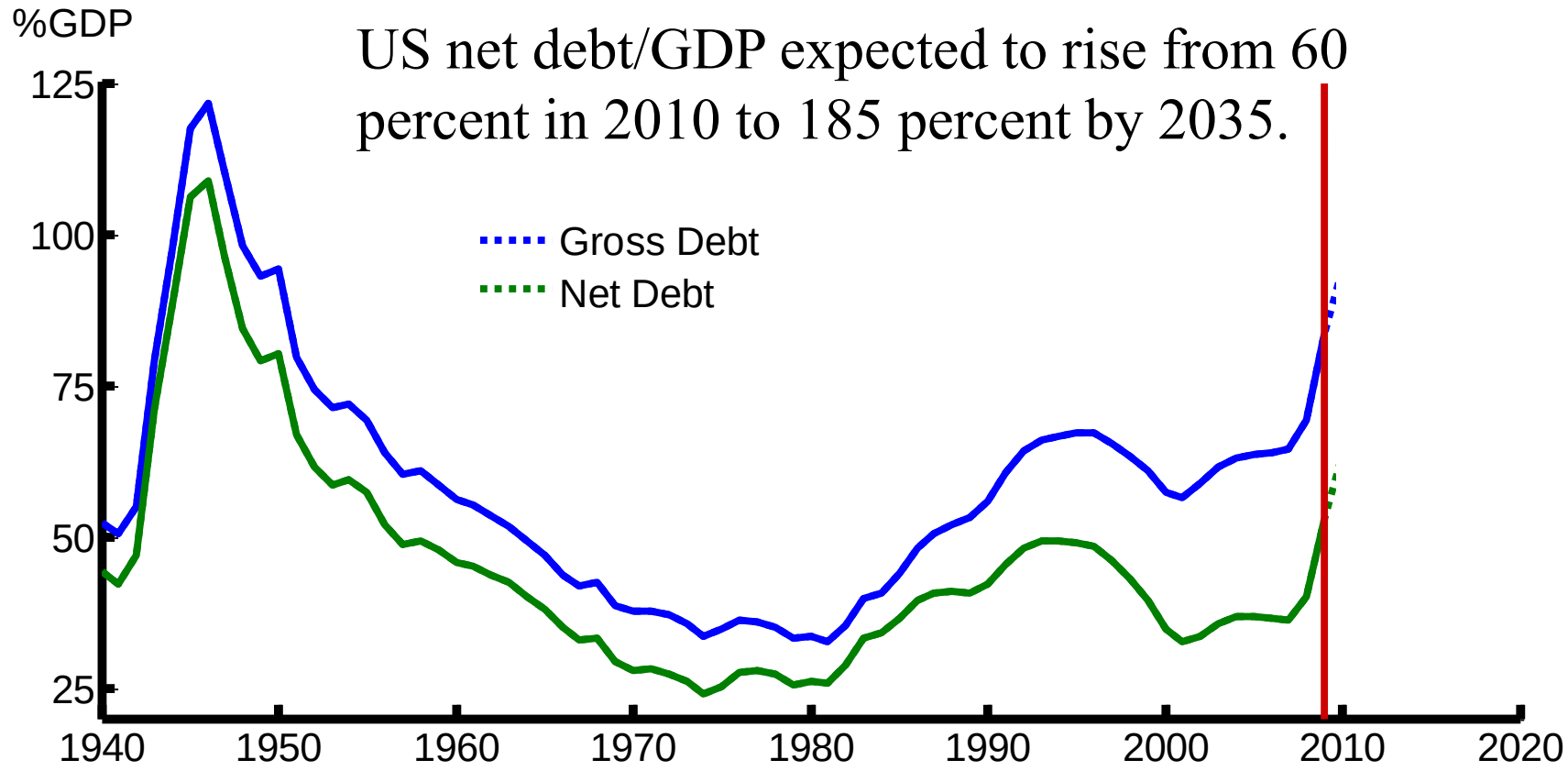
- Government defaults are common.
  - See Reinhart and Rogoff: "This Time Is Different."
  - Explicit vs. implicit (inflation) defaults.
- How large of a deficit/debt can a country run?
  - Deficits and debts are typically expressed as a % of GDP.

Gross and Net Debt



Source: OECD Economic Outlook

US Gross and Net Federal Debt



Source: U.S. Treasury

The Budget Constraint is Forward Looking

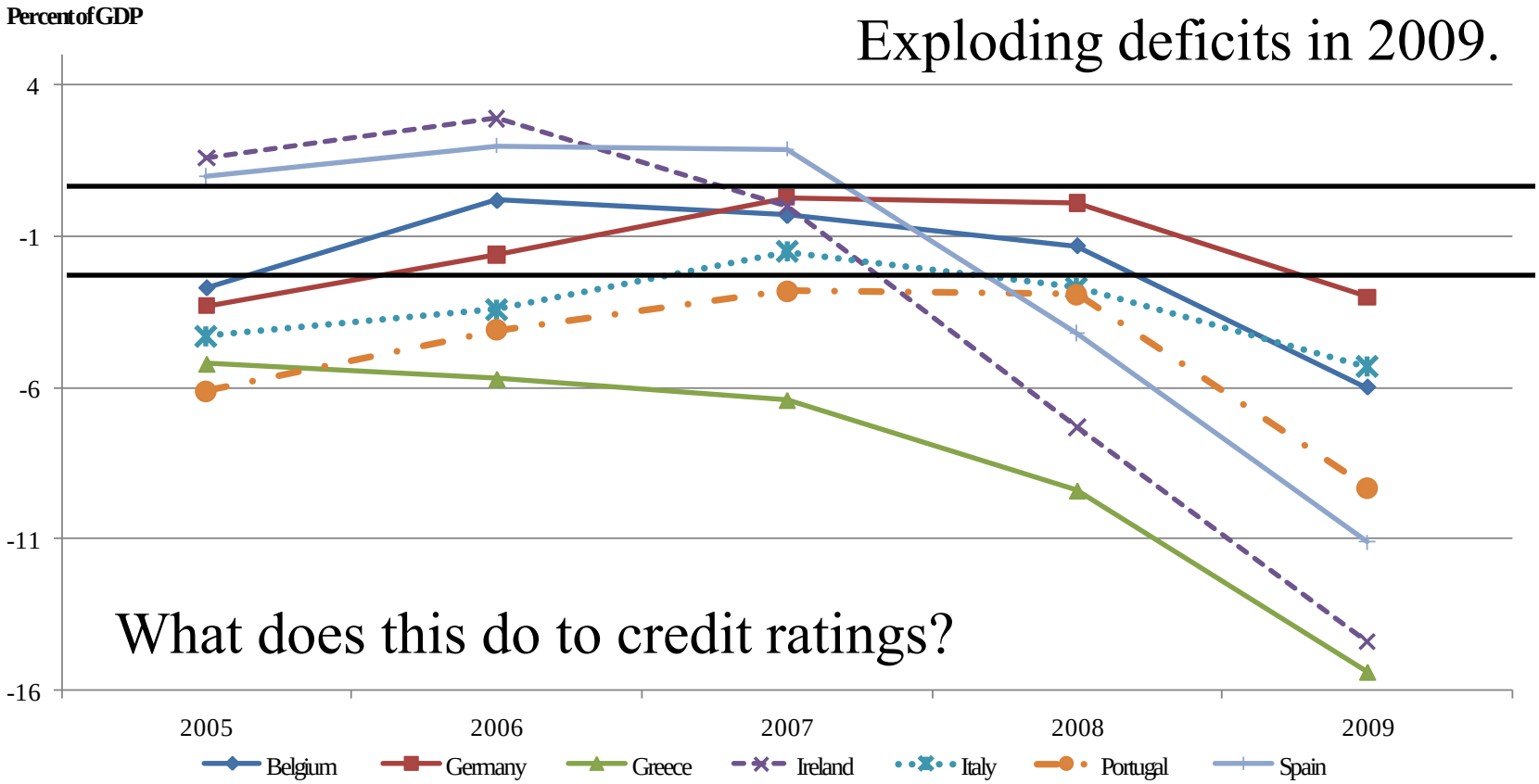
- Future liabilities are important
  - Social security
  - Medicare
  - Interest payments
- Medicare is the big problem.
  - The problem is structural: Economic and technological growth lead us to want to pay a higher fraction of our income for medical care.
  - A third party payer removes a check on growth.

What is the Problem in Europe?

- Big budget problems in euro land
  - "Peripheral countries": Some commonality; some differences.
  - Euro-area entry usually played a role in facilitating overconsumption, borrowing, and deficits.
  - Euro-area is not an "optimal currency area".
    - FX rates allow international prices to adjust more easily.

- PIIGS (Not a very PC description)
  - Portugal, Italy, Ireland, Greece, Spain, (and) Belgium

What is the Problem in Europe?



Source: Statistical Office of the European Communities/ Haver Analytics

Country	Credit Rating		
	Moody's	Standard and Poor's	Fitch
United States	Aaa	AAA	AAA
Canada	Aaa	AAA	AAA
Japan	Aa2	AA	AA
Austria	Aaa	AAA	AAA
Denmark	Aaa	AAA	AAA
Finland	Aaa	AAA	AAA
France	Aaa	AAA	AAA
Germany	Aaa	AAA	AAA
Netherlands	Aaa	AAA	AAA
United Kingdom	Aaa	AAA	AAA
Poland	A2	A	A
Slovakia	A1	A+	A+
Portugal	A1	A-	A+
Italy	Aa2	A+	AA-
Ireland	Baa1	A	BBB+
Greece	Ba1	BB+	BB+
Spain	Aa1	AA	AA+
Belgium	Aa1	AA+	AA+

Portugal: High Debt Load and Low Growth

- Prospect of entry to euro area in 2001 created optimism, expectations of higher income and lower borrowing costs.
  - Consumption boom, helped by financial integration.
  - Lower unemployment, rising wage/productivity, huge current account deficit (10% of GDP).
  - Rising wages => lack of competitiveness. No exchange rate to adjust.
- Financial innovation frequently leads to bubbles.

Portugal: High Debt Load and Low Growth

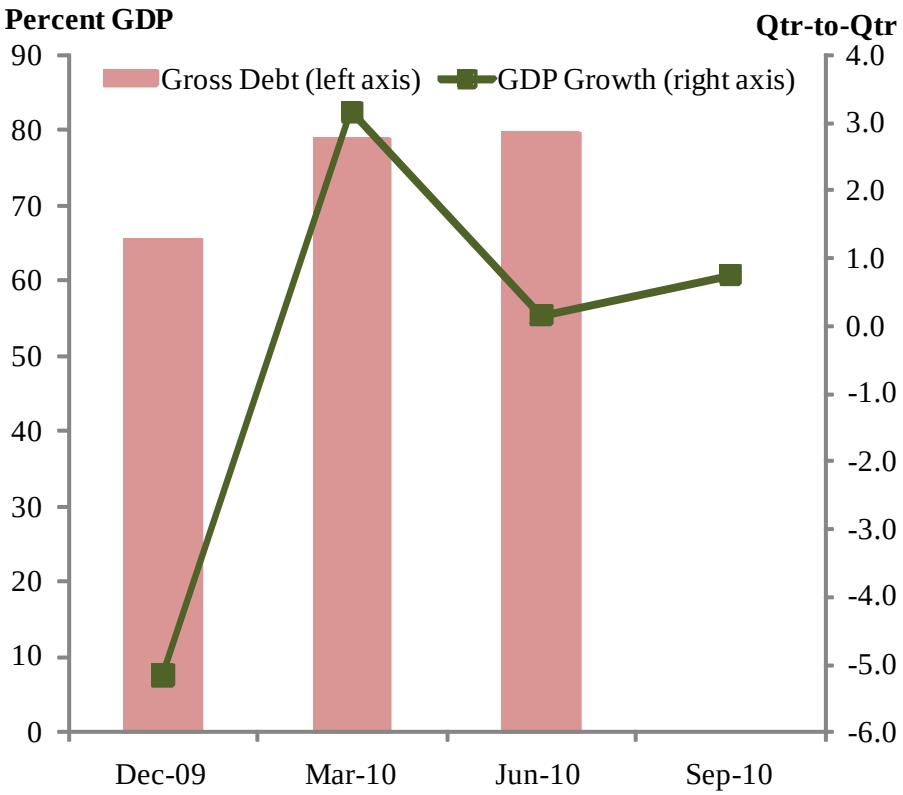
- Slow output growth since 2002; rising unemployment;
- Large fiscal deficit (6% of GDP) even prior to the financial crisis.
- No macro tools to make an adjustment.
  - No monetary policy; no exchange rate policy.
  - No fiscal policy.

Ireland: Banking Recapitalization (20% of GDP)

- Ireland has been one of the fastest growing economies in the world in the last 30 years.
  - It went from poor to rich.
- Ireland had a very large banking sector that suffered serious losses in the subprime crisis.
- The Irish government guaranteed the banks' liabilities.

Ireland: Banking Recapitalization (20% of GDP)

- November—Standard and Poor's lowered the ratings of several major Irish banks. Anglo-Irish Bank was reduced to junk grade.
- December—Irish parliament approved an 85 billion Euro EU/IMF bailout



Source: Statistical Office of the European Communities/ Haver Analytics

Ireland: Banking Recapitalization (20% of GDP)

- December—bailout package qualifications include steep budget cuts and tax hikes.
- December—Moody's downgrades Irish debt by 5 notches to Baa1.

Source: Financial Times/ Haver Analytics

Italy: High Public Debt and Slow Growth

- Italy's public debt (118% of GDP) is the second highest in the bloc, second to Greece.
- No boom-bust in Italy, just slow growth.
  - Italy has been one of the world's slowest growing economies for more than a decade. Maximum potential is estimated at 1%.
- Low productivity growth compared to wages.
- Highly regulated economy; low competition.

Greece

- Public pensions
  - Early retirement: 55 for men, 50 for women
- Huge inefficiency in government
  - Railroads and schools
- Widespread tax evasion
  - Tax collectors are pulled in election years.
- Terrible/dishonest government accounting; massaged statistics.
- Goldman Sachs helped the Greek government securitize future income.

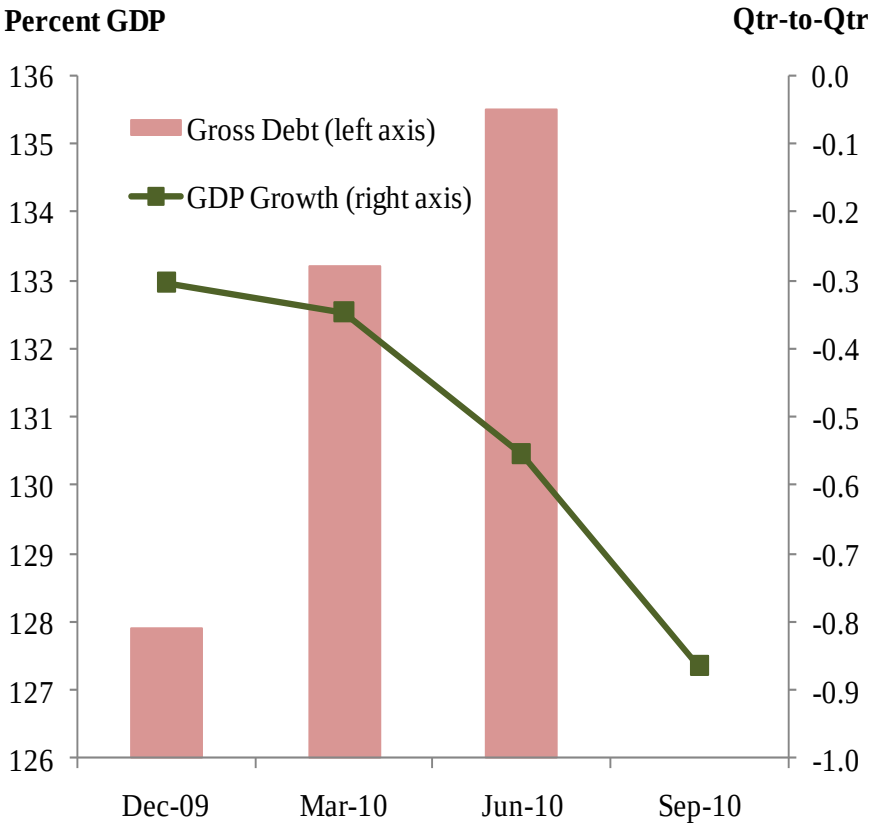
Greece

- $250,000 in debt for every working Greek.
  - Comparable US figure might be about $90,000.
- Debt problem unearthed by a change of government precipitated by a real estate scandal involving a monastery in October 2009.
  - Led to a huge revision in estimated fiscal deficits.
  - See an excellent article by Michael Lewis in the October 2010 Vanity Fair.
- Solutions?
  - Restructuring/default
  - Sell islands?
  - European bail out by Germany and France?

Greece

Since accepting the EU/IMF 110 billion Euros aid package in May…

- June—Moody's cut Greece's credit rating to Ba1 (junk status)
- June—As a result of the downgrade, ECB applies a 5 percent charge on Greek government bonds used as collateral in lending operations.



Source: Statistical Office of the European Communities/ Haver Analytics

Spain

- Spain is the fourth-largest economy in the euro-zone and about 10% of the bloc's economic activity.
- Spain has had a big housing bubble.
- High internal demand; large current account deficit (10% of GDP).

Spain

- Banking recapitalizations have cost the Spanish government 1% of GDP (compared with 20% in Ireland).
  - 1% of US GDP would be about $150 billion.
- Spain is restructuring its weaker banks, enforcing austerity measures, and cutting deficits to stave off need of rescue.
- The spread between Spain's 10-year bonds and Germany's bonds continues to widen—2.56 in Jan. 2011 vs. 0.55 in Sept. 2010.

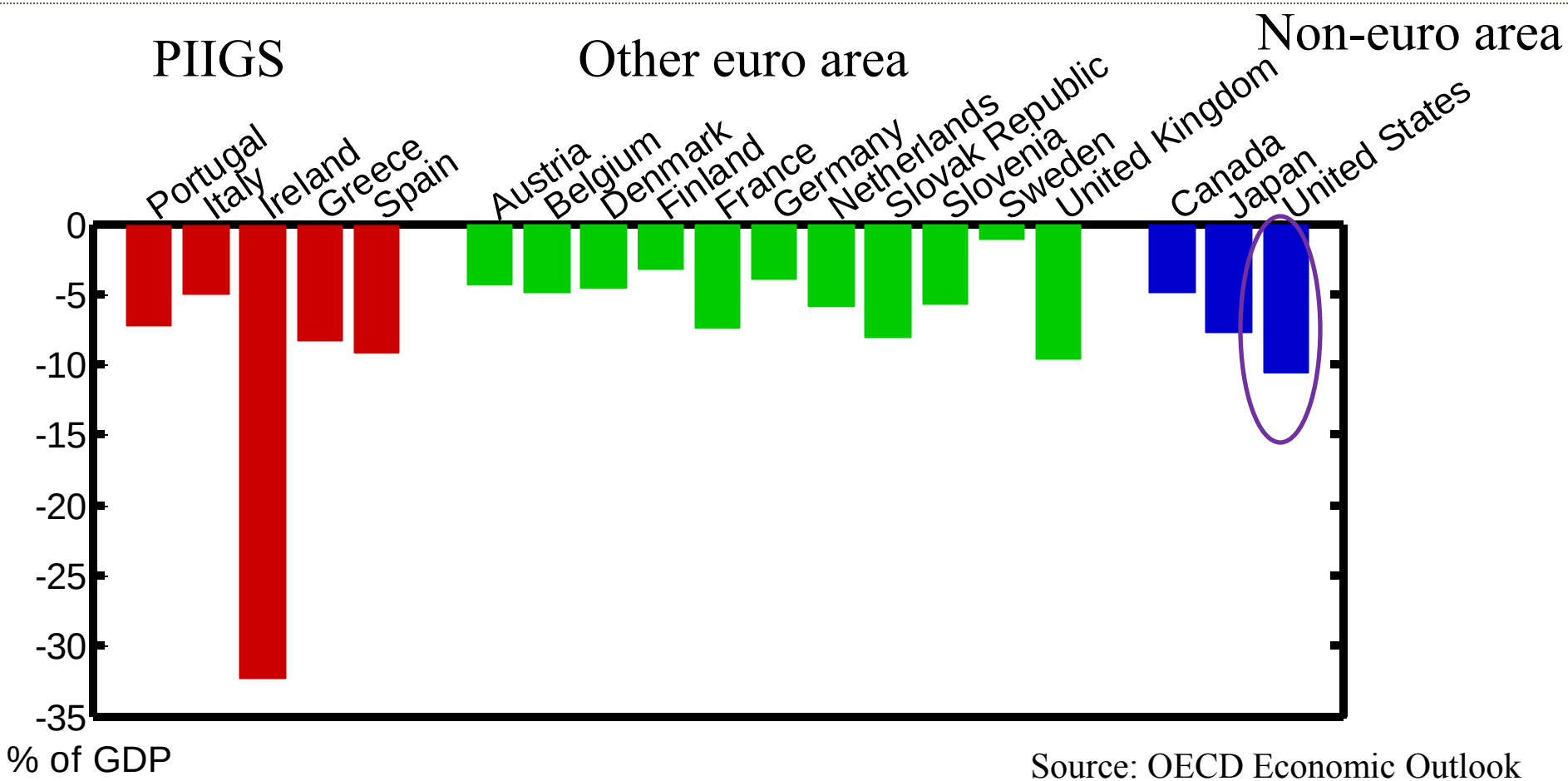
Belgium: High Public Debt and Slow Growth

- In December, the IMF said Belgium needed to control spending as its debt grew to over 100% of GDP in 2010.
- The yield spread has grown 115 basis points over German bonds, which could result in a funding squeeze.

What is the Current U.S. Deficit Situation?

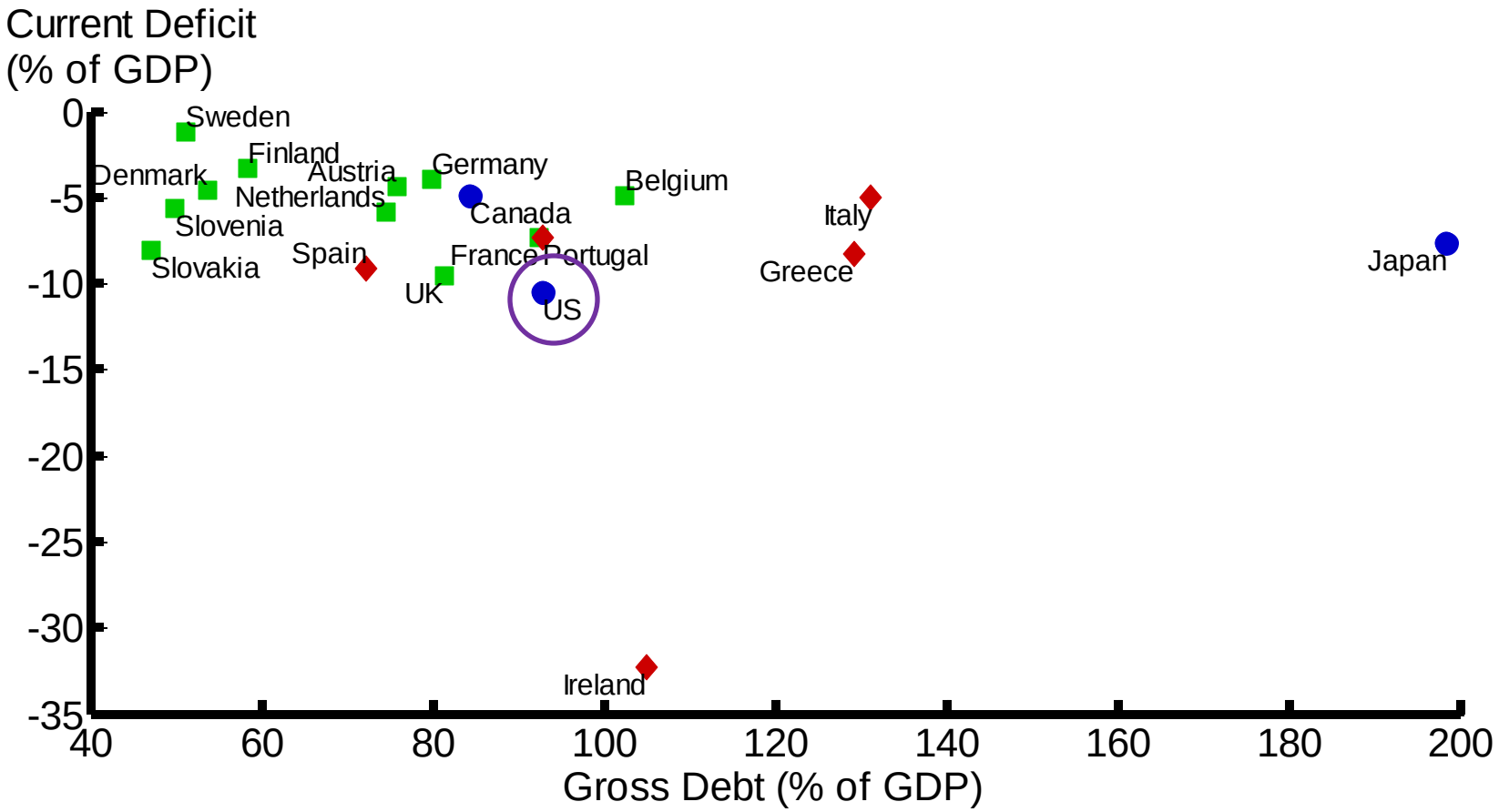
- The US deficit is very, very large but is not very far from the pack either.
- Markets see a non-zero probability of a US default for the first time in my life.
- Let's compare the United States, Japan and Canada with the European countries…

Current Deficits/GDP



Source: OECD Economic Outlook

Current Deficits v. Gross Debt



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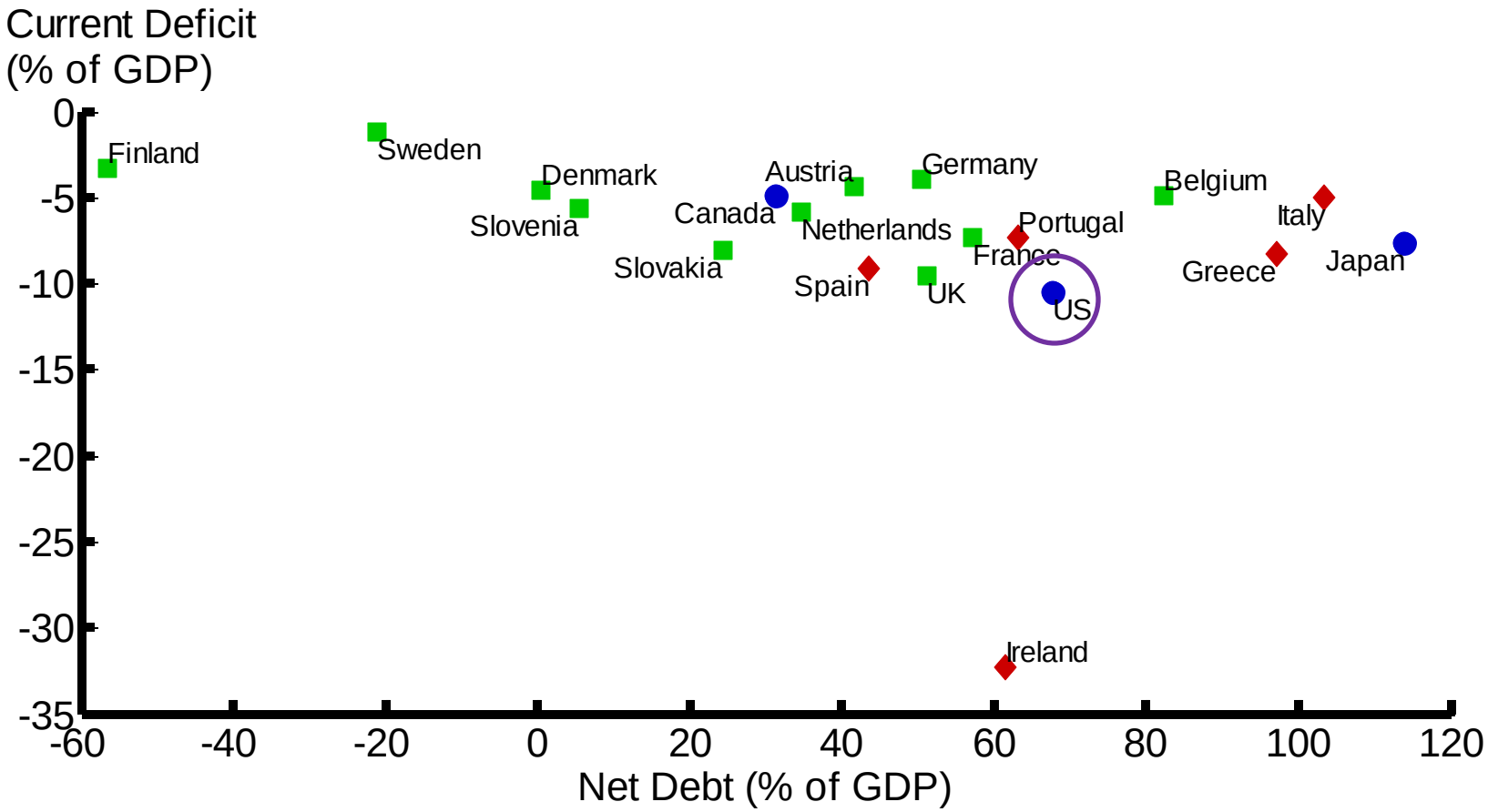
Current Deficits v. Net Debt



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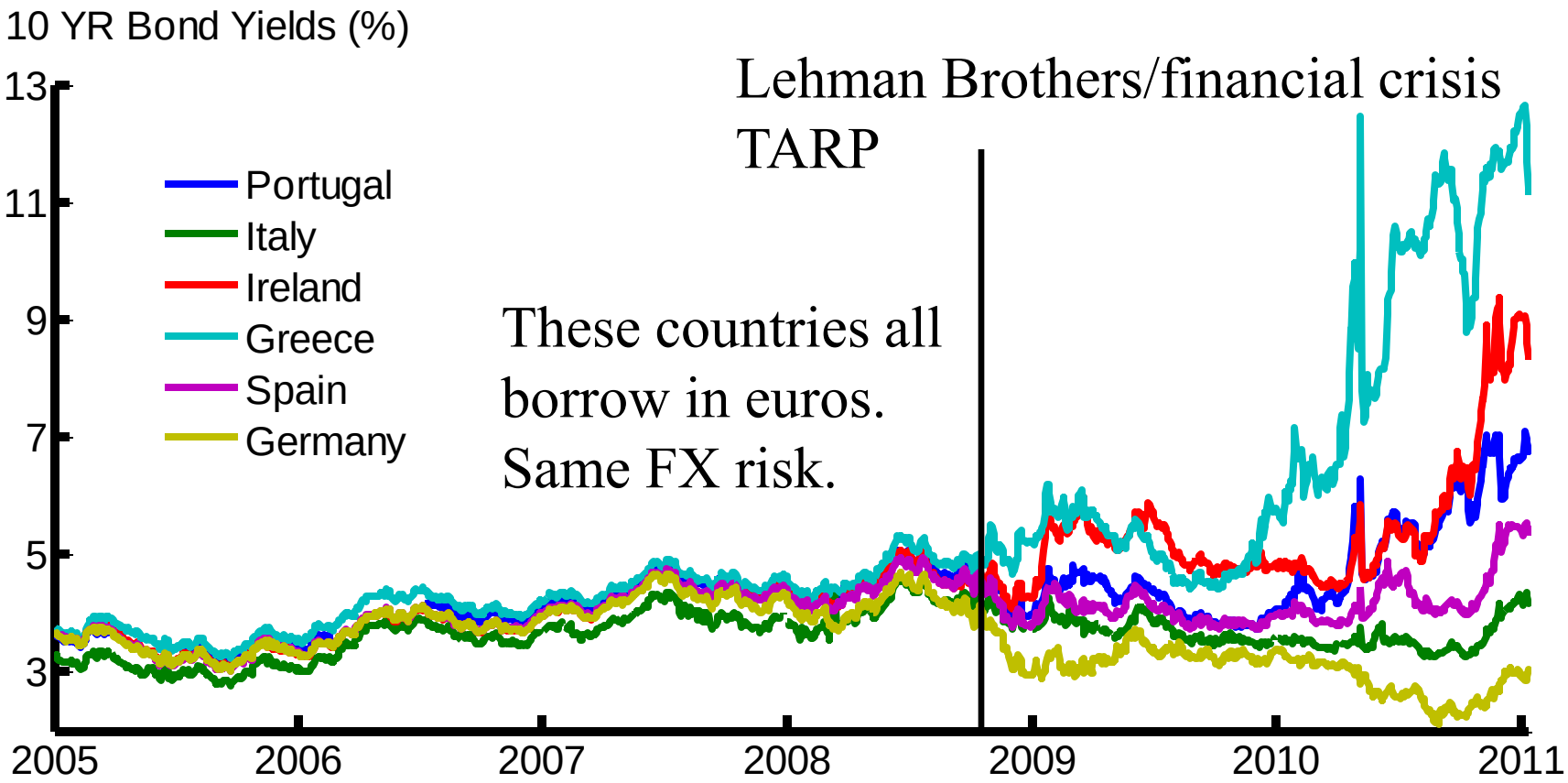
What Effect have these Deficits/Debts had on Bond Yields?



Source: Bloomberg

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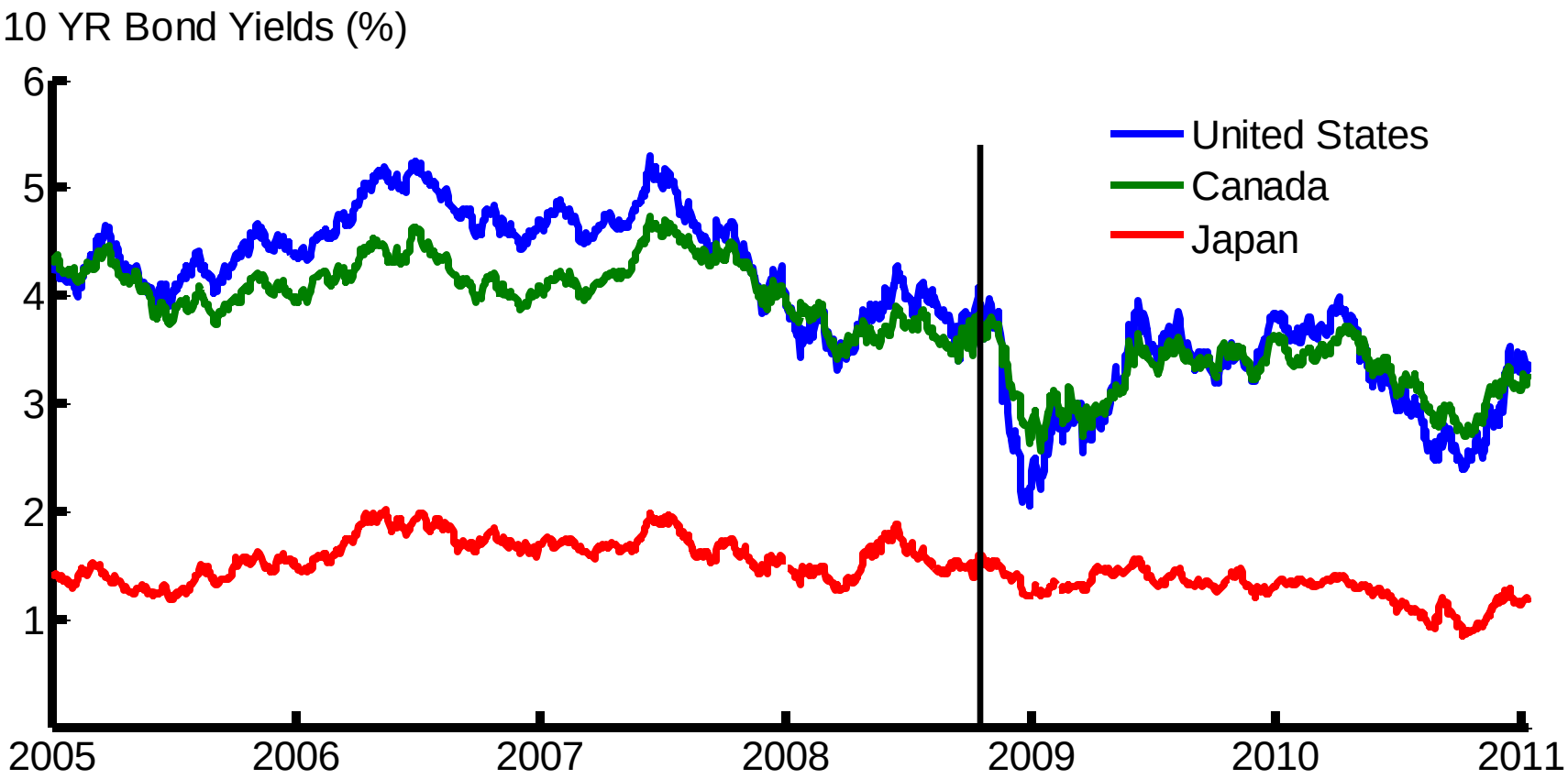
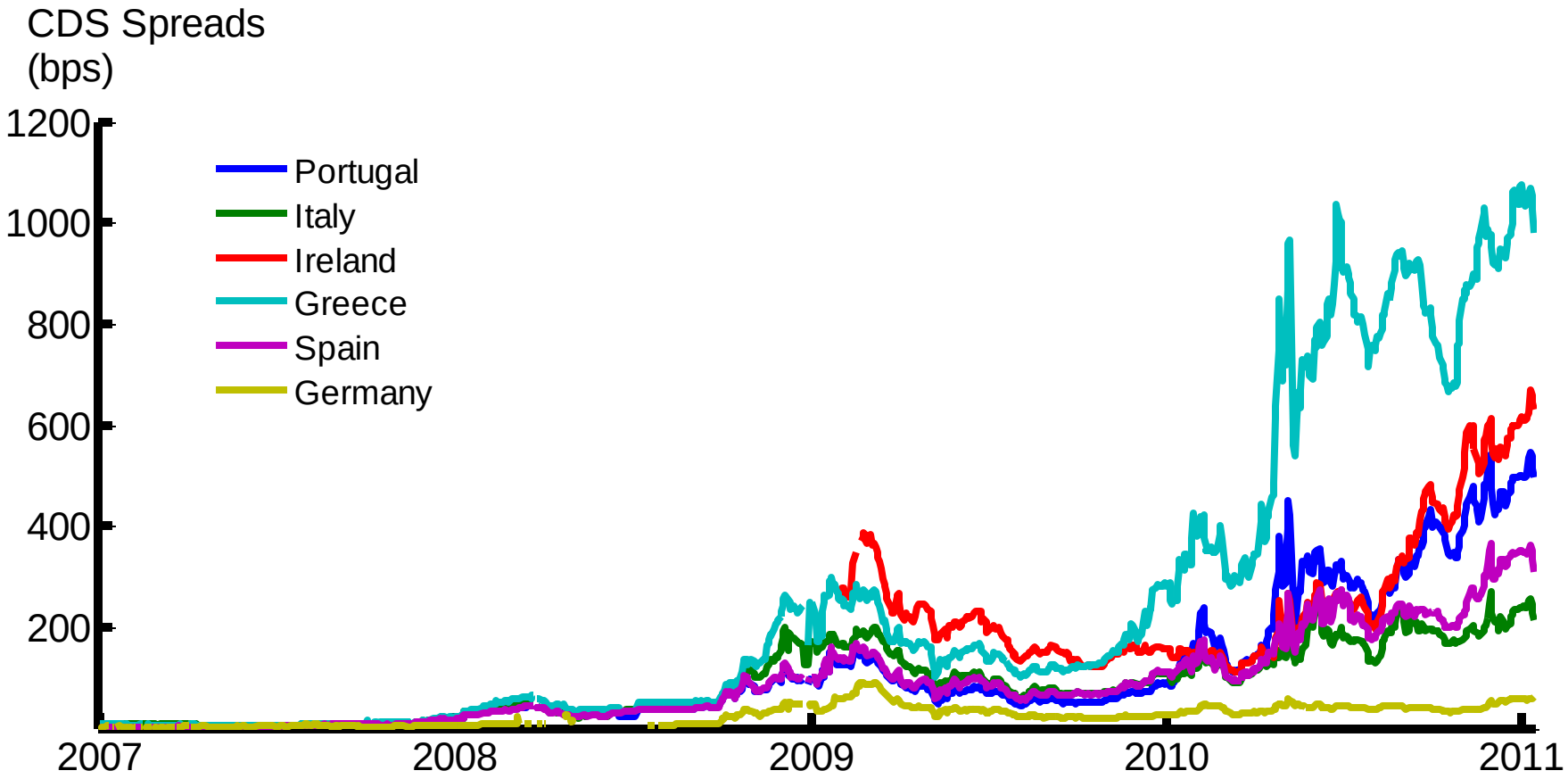


Source: Bloomberg

What are CDS Rates?

- CDS: Credit default swaps.
- CDSs function much like insurance for bonds.
  - The buyer pays an annual premium in exchange for the seller's agreement to buy the bond at face value (par) if the bond issuer defaults.
- One can use CDS rates to derive "risk-neutral" probabilities of default.
  - What are "risk-neutral" probabilities?

What Effect have these Deficits/Debts had on CDS Rates?



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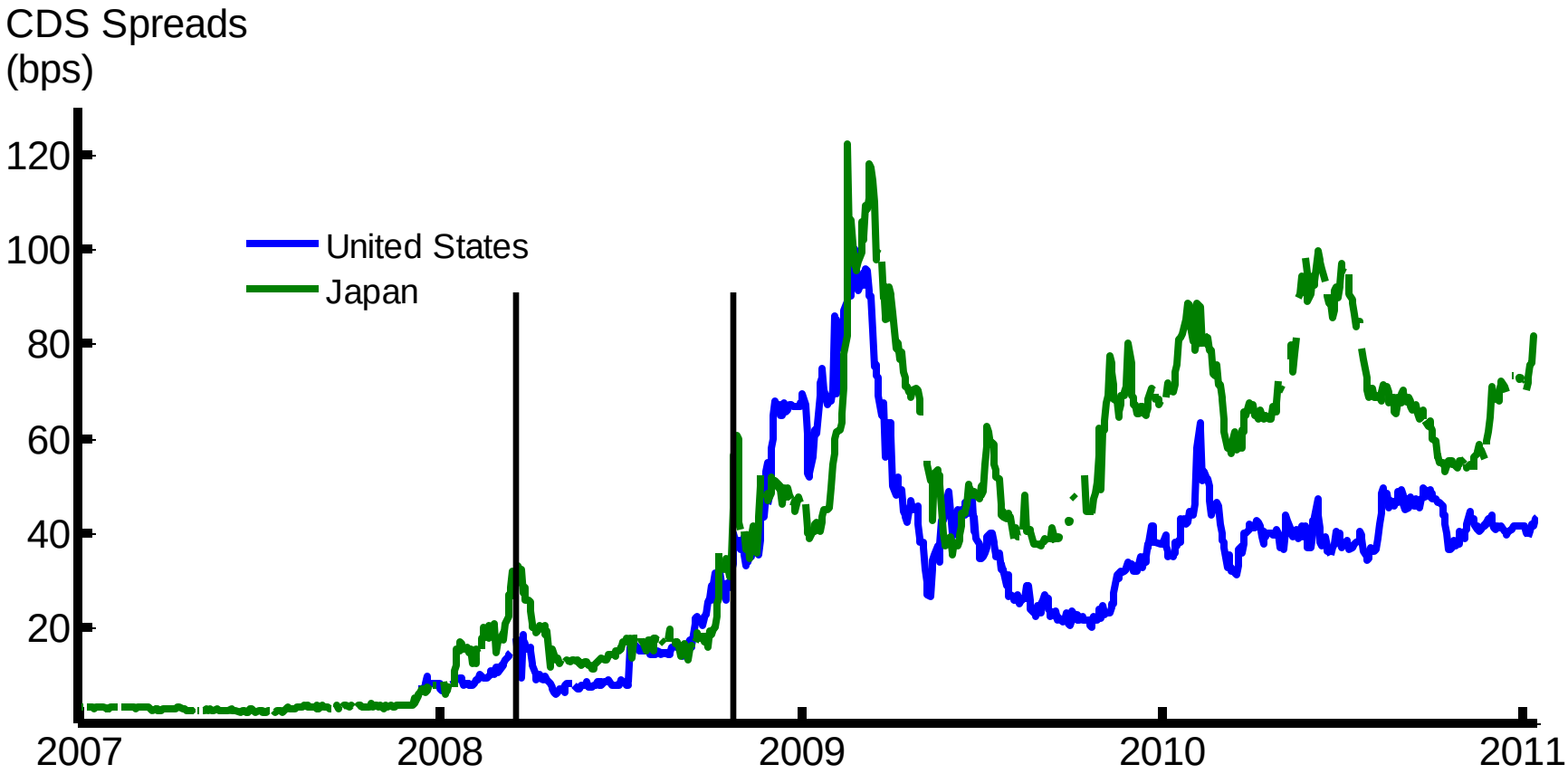


Source: Bloomberg

Euro default versus other countries

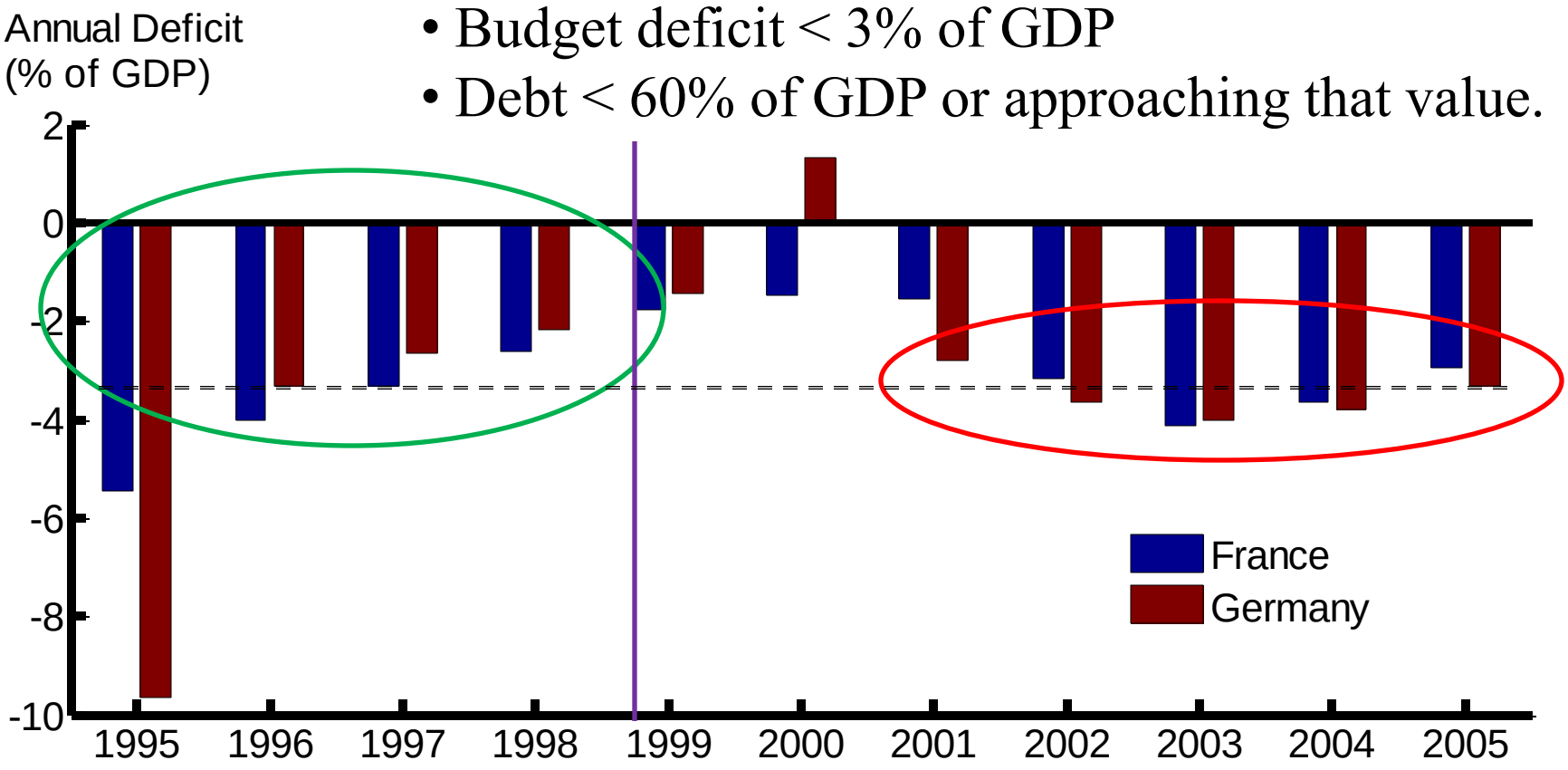
- Sovereign default usually leads to negotiated debt restructuring.
- Countries that issue debt in their own currency never have to explicitly default; they simply print currency to pay off bonds.
  - This leads to rapid inflation and is a bad idea.
  - One cannot roll over one's debt.
- Euro-area countries do not have this option, as no individual country controls the ECB.

How did the European Countries Come to this Fiscal Crisis?

- Structural problems
  - Large public sectors, generous pension plans, low tax efficiency, high wage growth, slow growth
- The introduction of the euro and financial integration facilitated consumption and government borrowing.
  - Euphoria and disappointment
  - The euro removed an adjustment tool. Europe is not an optimal currency area.
- The financial crisis of 2007-2008 triggered the fiscal crises.

France &Germany Break the Stability Pact

- Budget deficit < 3% of GDP
- Debt < 60% of GDP or approaching that value.



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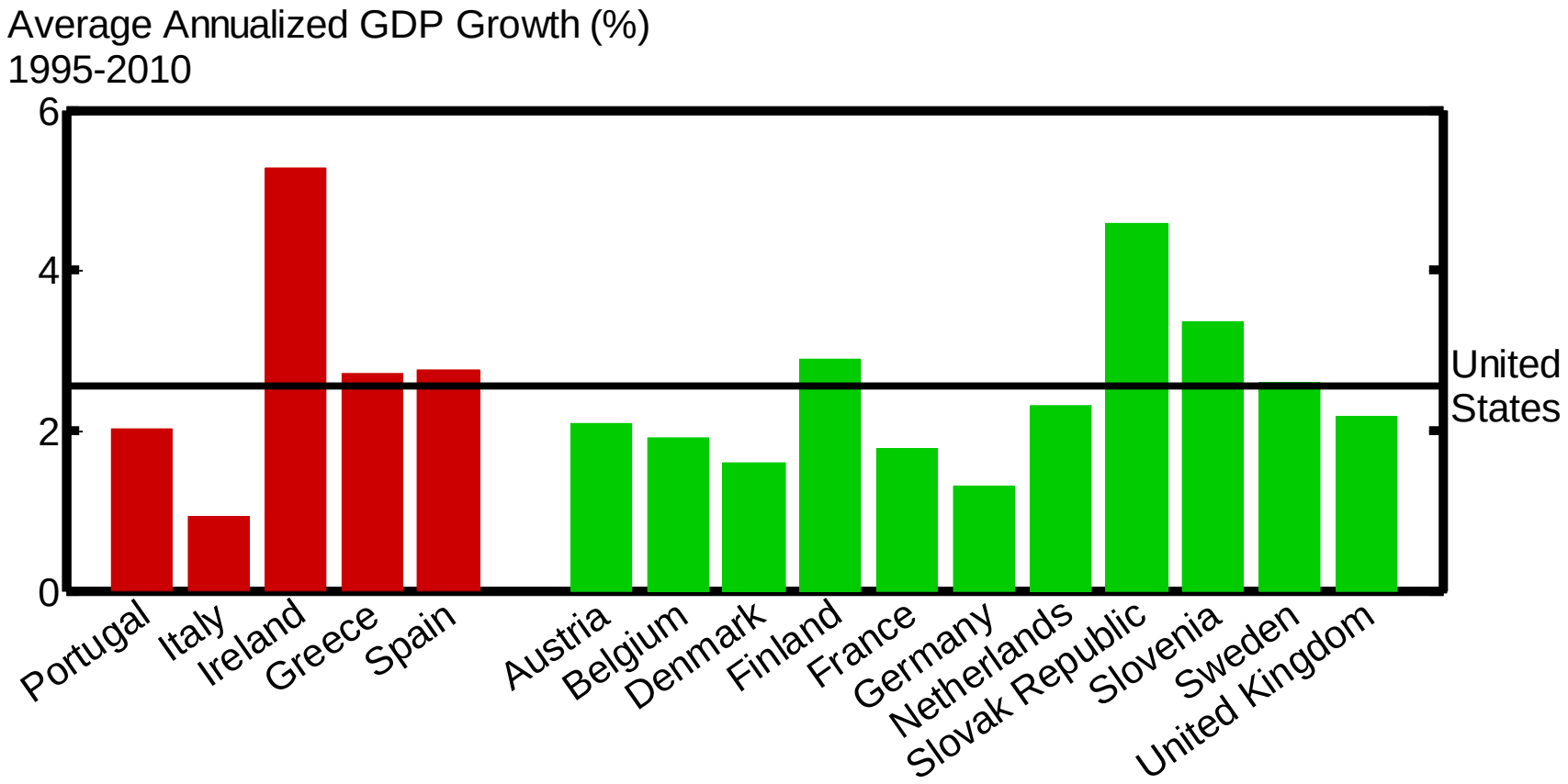
How Slow has Growth Been?



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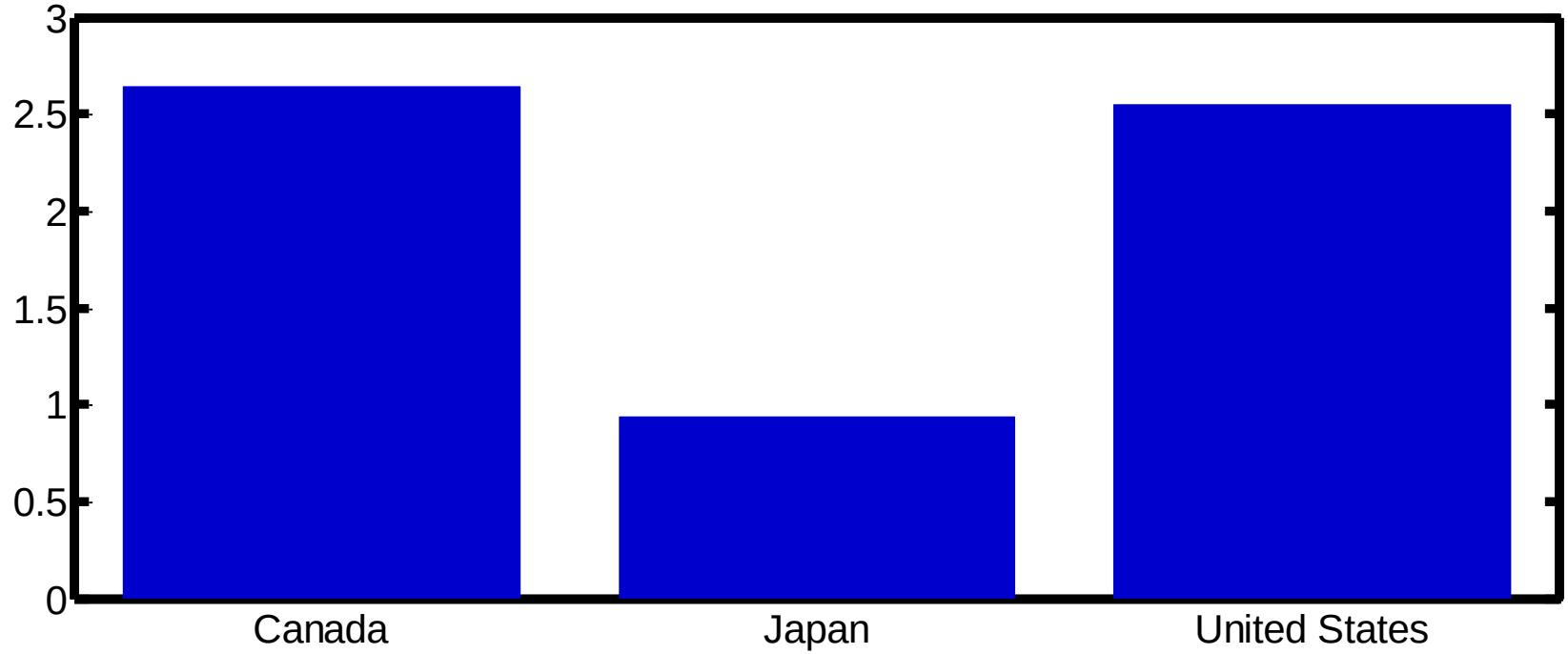
Growth in the Control Countries?

Average Annualized GDP Growth (%)
1995-2010



Source: OECD Economic Outlook

What can Europe do?

- Enlarge the European Financial Stability Facility (*EFSF*)
- Give the EFSF authority to buy bonds or lend national governments money to do so.
- Morph the EFSF into the European Stability Mechanism (ESM).
- Impose structural reforms on the PIIGS.
  - Higher retirement, elimination of indexed wages, more efficient tax systems.

See "The EU's Comprehensive Package" by Charles Forelle, for the WSJ.

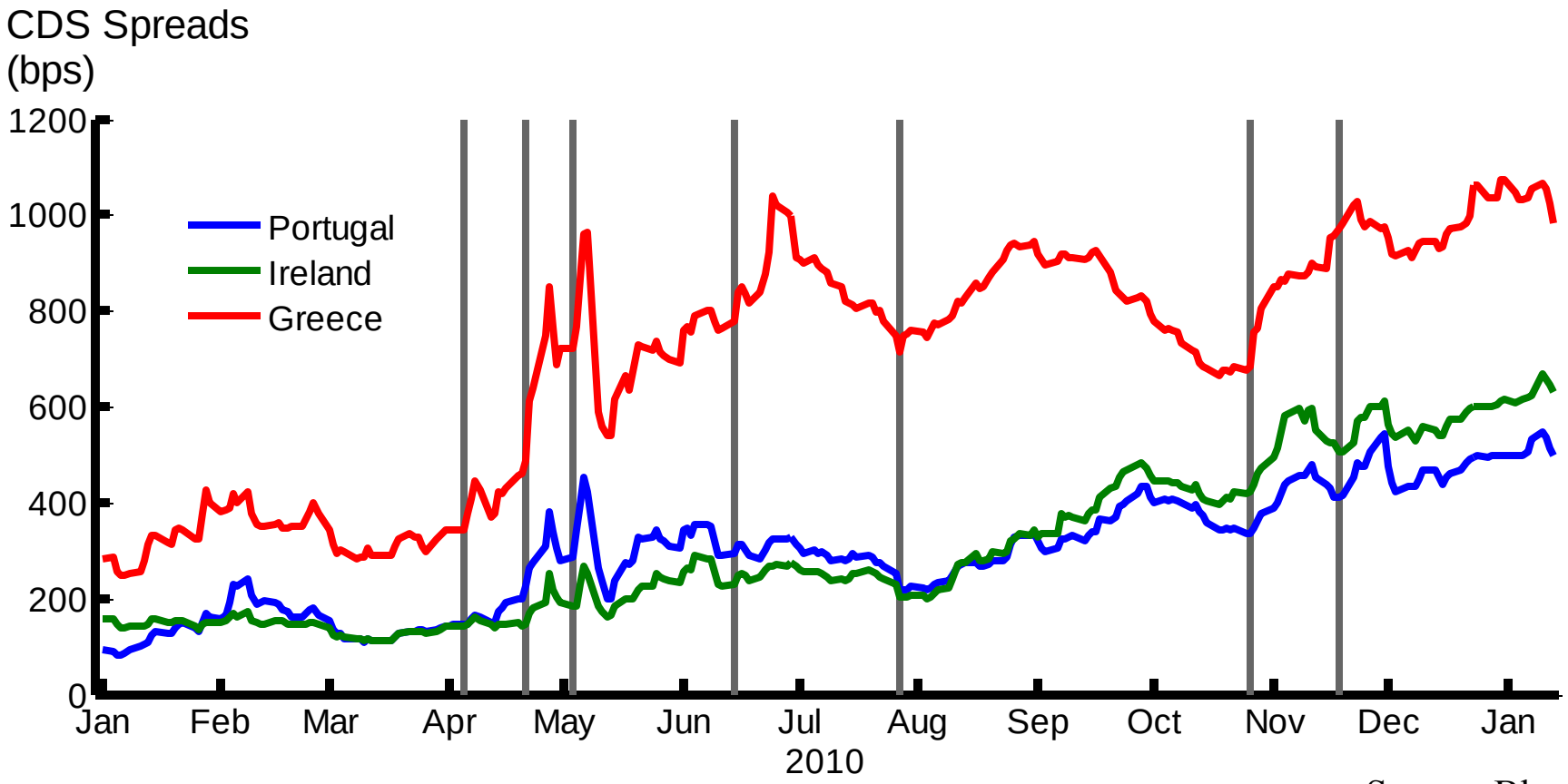
Why did it take the Financial Crisis to bring on a Fiscal Crisis?

- Financial crisis triggered the fiscal crisis; the temporary negative fiscal shock revealed and exacerbated underlying problems.
  - "When the tide goes out, the dead fish stay behind…" (?)
- Multiple equilibria models
  - The financial crisis shook expectations.
  - Expectations determine the actual result.
  - E.g., Bank runs

What are the Implications for the United States?

- Costs: Information cascades: Doubts about the PIIGS sow doubts about other countries, including the United States.
- Benefits: Doubt about European debt holds down Treasury yields and buoys the USD.
- So far: European problems have probably temporarily benefited the United States.

What are the Implications for the United States?

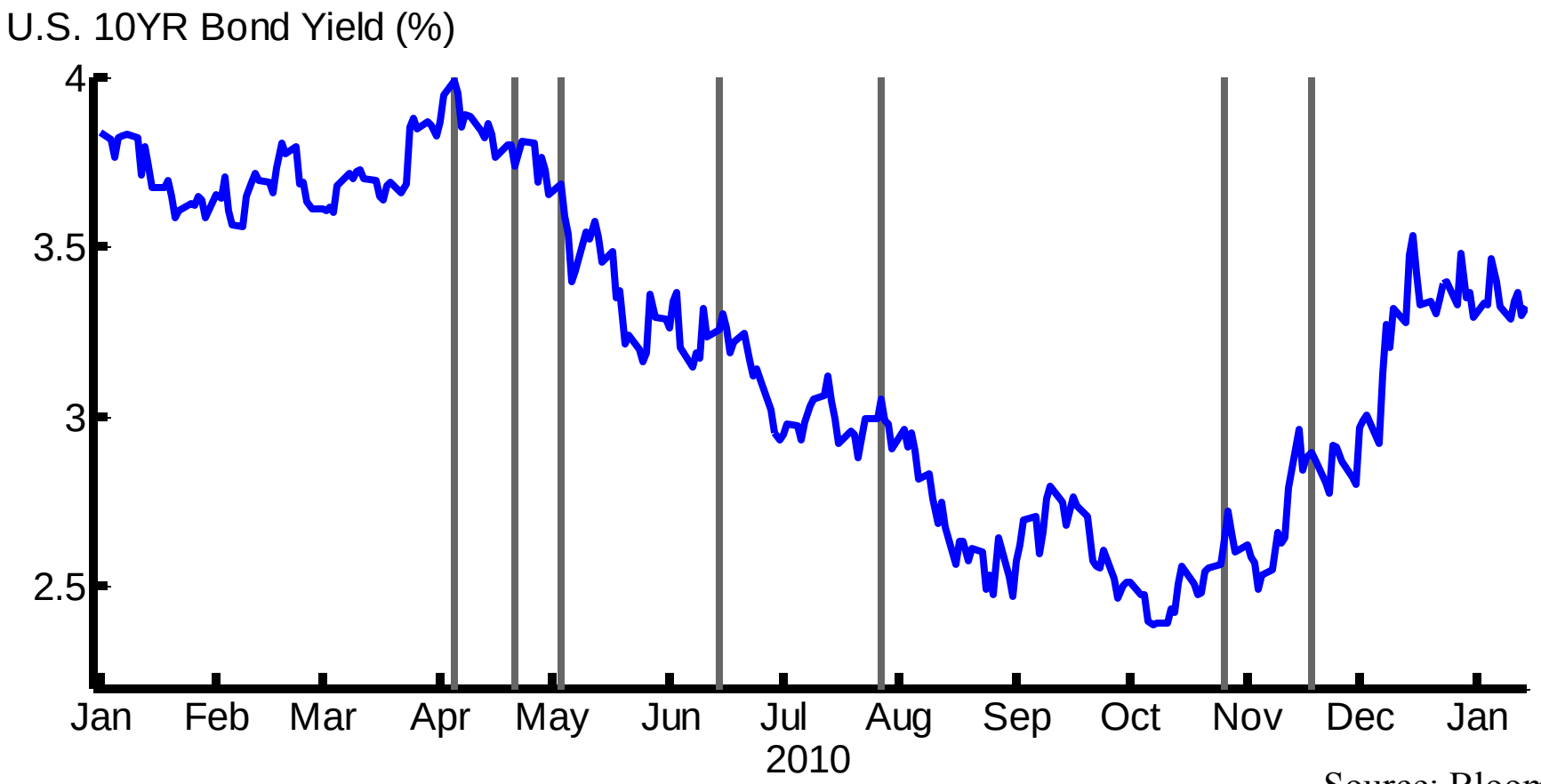


Source: Bloomberg

What are the Implications for the United States?

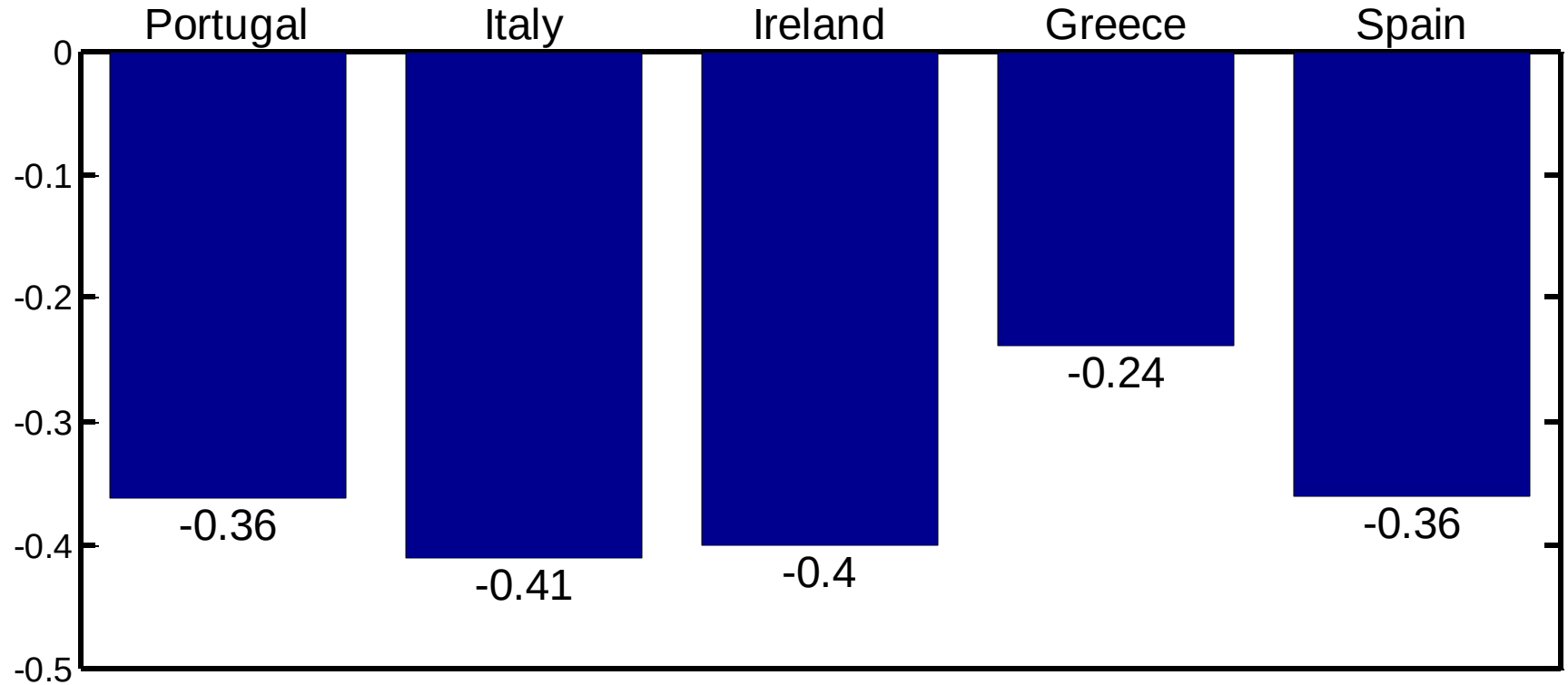
- CDS rates for the PIIGS are negatively correlated with decreases in US Treasury yields.
- Doubts about the PIIGS hold down Treasuries.

What are the Implications for the United States?



Source: Bloomberg

2010 Co-movement: U.S. 10-Year Yields v. PIIGS CDS Spreads



Correlation of
2-Day Log Changes

Correlation does not necessarily imply causation, of course.

Source: Bloomberg

What are the Implications for the United States?

- What does an actual disorderly European default imply for the United States?
  - U.S. investors and banks hold modest amounts of European debt.
    - The Federal government effectively stands behind U.S. banks.
  - There are potentially huge knock-on effects through the international financial system.
  - Financial crises often produce unusually serious recessions when the health of the system is threatened.

U.S. Strength

- Difficult for international bond buyers to find enough good substitutes for U.S. government debt.
  - The Chinese have few options: the euro, the yen, the pound.
  - The "Officer and a Gentleman" scenario: "I've got nowhere else to go."

The Bottom Line

- Entry to the euro system helped create the fiscal crisis.
  - Lower borrowing costs, easier financial integration led to higher consumption and fiscal ease.
  - Masked certain problems and exacerbated others.
- Europe and the United States face difficult fiscal situations.
  - The financial crisis has strongly affected short-run budgets.
  - The long run is actually a more serious problem.
    - Europe: Slow growth, large public sectors, pensions.
    - United States: Medicare growth, social security.
- The U.S. has benefitted to some extent from the PIIGS problems.

The Bottom Line

- An actual (disorderly) European default would
  - be a huge problem for the euro area.
  - create problems for the United States through the international financial system.
  - "Orderly" is a hard thing to define.

- Some sort of restructuring (a default) seems to be inevitable for some of the countries.

The End

Timeline: March 2010

- March 7th
  - French President Nicolas Sarkozy states that a number of EU countries are preparing a support package for Greece, but that he doesn't expect them to need it.
- March 11th
  - Approximately 50,000 Greeks take to the streets in protest of proposed austerity plan.
- March 18th
  - Greece asks EU leaders to agree to package of standby loans.
- March 24th
  - Fitch lowers Portugal's credit rating one level to AA-.
- March 25th
  - Euro-zone leaders agree to a deal to bail out Greece jointly with IMF.

Timeline: April 2010

- April 9th
  - Fitch lowers Greece's credit rating by two levels to BBB-.
- April 11th
  - Euro-zone finance ministers agree to allow Greece to borrow up to €30 billion through 3 years, at 5% interest.
- April 22nd
  - EuroStat revises Greek budget deficit from 12.7 to 13.6% of GDP. Moody's lowers Greece's credit rating one level to A3.
- April 23rd
  - Greek Prime Minister Papandreou says the time has come to request aid: It is "a necessity. It is an extreme necessity, it is a national necessity."

Timeline: April 2010

- April 27th
  - S&P lowers Greece's credit rating to junk status. Also downgrades Portugal two levels to A-.
- April 28th
  - S&P lowers Spain's credit rating one level to AA.
- April 29th
  - Greece agrees to additional austerity measures as a precondition for aid.

Timeline: May 2010

- May 2nd
  - Greece and Euro-zone agree to bailout. €30 billion is set out for first year, expected total cost is €100 billion over three years.
- May 4th-5th
  - Greek civil servants stage a two day strike in protest of austerity measures. Three people die in Athens.
- May 10th
  - EU agrees on €750 billion bailout plan for entire euro zone. Funding includes €440 billion in loans from euro-zone governments, €60 billion from the EU emergency fund, and €250 billion from the IMF.
- May 29th
  - Fitch lowers Spain's credit rating one level to AA+.

Timeline: Summer 2010

- June 14th
  - Moody's downgrades Greek bonds to junk status.
- July 13th
  - Moody's lowers Portugal's credit rating two levels to A1.
- July 19th
  - Moody's lowers Ireland's credit rating one level to Aa2.
- August 24th
  - S&P lowers Ireland's credit rating one level to AA-

Timeline: Fall 2010

- September 30th
  - Moody's lowers Spain's credit rating one level to Aa1.
- October 6th
  - Fitch lowers Ireland's credit rating one level to A+.
- November 21st
  - Ireland says that it has applied for tens of billions of euros in aid from the EU and IMF. Both indicate that the request will be met.
- November 28th
  - The EU agrees on a €85 billion bailout for Ireland.
- December 17th
  - Moody's lowers Ireland's credit rating 5 levels to Baa1.
- December 23rd
  - Fitch lowers Portugal's credit rating one level to A+.

Timeline: 2011

- January 14th
  - Fitch becomes the last of the three credit agencies to downgrade Greek bonds to junk status.