EMERGING CAPITAL MARKETS

Lecture 12: Crises in Periphery of Europe

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Outline

- Drivers of European Integration
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- The Dollar versus the Euro as OCAs
- How the Crisis has been Managed
- Possible Scenarios for Crisis Resolution

Drivers of European Integration

Since the end of WWII, European integration had four drivers:

- Preventing another European war
- Accelerating economic growth
- Enhancing the European international position and
- Serving as counterweight to the USA

Stages of European Economic Integration

1. European Steel and Coal Community: composed of six countries in 1951.
2. Free Trade Area: European Economic Community (EEC, created in 1957)
3. Customs Union: European Community (EC), as of 1968, with EMS in 1979.
4. Common Market: to allow free movement of capital, services and people, to be created gradually, as specified in the Single Europe Act of 1986.
5. European Union: EU, added common foreign/security policies, cooperation on justice/legal matters, and removal of borders, and physical and technical barriers; agreed to by the Maastricht Treaty of 1992.
6. Economic and Monetary Union: EMU- Eurozone, a subset of the EU, 1999
7. Political and Economic Union: the USA is an example; not in Europe.

Creation of the Euro

- A common currency was the ultimate objective of the European Community since 1969.
- This objective was expected to be achieved in stages, starting in 1972 (after the collapse of the BW system) with the agreement to maintain exchanges rates within a band of +/- 2.25% of average rates and ending with the introduction of the Euro in 1999-2002.
- In 1979 the initial stability agreement was formalized with the formation of the European Monetary System (EMS), which had four elements:
  1. The creation of the European Currency Unit (ECU) as a currency basket.
  2. The Exchange Rate Mechanism (ERM) which required countries to maintain exchange rate changes within a limited range of +/- 2.25% of the ECU, but widened to +/- 6% for Italy in 1992, and for all countries to +/- 15% in 1993, after attacks on the French Frank.
  3. An extension of European credit facilities.
  4. The European Monetary Cooperation Fund which allocated ECUs to members' central banks in exchange for gold and US dollar deposits.

- In 1990, exchange controls were abolished and thus capital movements were completely liberalized.
- In 1992, the Treaty of Maastricht sets the EMU as a formal objective and sets a number of economic convergence criteria concerning public finances, inflation rates, interest rates and exchange rate stability.
- In 1994, the European Monetary Institute is established as the forerunner of the European Central Bank (ECB), with the task of strengthening monetary cooperation between the member states and their national banks.
- In 1995, details such as the name of the new currency (the Euro) as well as the duration of the transition periods are decided.
- In 1997 in Amsterdam, the European Council decides to adopt the Stability and Growth Pact, designed to ensure fiscal budgetary and public debt discipline after creation of the Euro
- In 1997, a new exchange rate mechanism (ERM II) is set up to provide stability between the Euro and the national currencies of countries that are planning to enter the Eurozone.

- In 1998 in Brussels, the European Council selects the initial countries that will participate in the Euro from 1 January 1999, with the UK opting out, and Sweden and Denmark delaying their participation.
- In June 1998, the European Central Bank (ECB) is created, and in December 1998, the conversion rates between the participating national currencies and the Euro are established.
- From the start of 1999, the Euro is introduced in electronic form as a real currency, and a single monetary policy is introduced under the authority of the ECB.
- A three-year transition period (1999-2002) begins for the introduction of actual Euro notes and coins in the individual countries, but legally the national currencies already ceased to exist.

The Expected Benefits of the Euro included:

- Eliminate exchange rate fluctuations and uncertainties
- Eliminate exchange rate-related transactions costs: if countries do a lot of business with one another, they may gain from a currency union (such as Germany and Netherlands)
- Accelerate economic growth through expanded trade, easier travel, and greater price competition
- Give a big push to further EU economic & political integration
- Enhance the EU’s power & prestige
- The less developed periphery (e.g. Greece, Portugal) will enjoy lower interest rates, promoting growth and convergence.
- The more developed center (e.g. Germany, France) would benefit from the Euro as it would promote their exports to other EMU countries, without competitive devaluations by the EMU trade partners.

The Costs of joining the Euro included:

  - No independent monetary policy meant that the country could not use changes in domestic interest rates and money supply to adjust to external or internal economic shocks
  - Permanently fixed exchange rate vis-à-vis other EMU members meant that the country gave up the option of devaluations to adjust relative prices as a response to shocks
  - A single currency implied a tacit shared responsibility for the economic problems of other EMU partners

- Opponents argued that repeated unsuccessful attempts to limit fluctuations among EU currencies showed that the EU countries were not a suitable economic group to have a common currency, i.e., they were not an “optimum currency area” (OCA).
- The OCA theory (developed by Nobel winner Professor Robert Mundell of Columbia University) sets out the conditions needed to make monetary union attractive to a group of countries.

Optimum Currency Area

- The Optimal Currency Area theory sets out the following economic conditions needed to make a monetary union feasible:
  - High flexibility of prices and wages to accommodate shocks through "internal" devaluations
  - High mobility of labor and capital to accommodate shocks
  - A good degree of fiscal transfers to countries with shock problems
  - Symmetry of external shocks (correlation in shock effects), needed to enable common policies in interest rates for all countries
  - High level of economic/trade openness, with high integration
  - Comparable economic development levels, with diversification
  - Similarity of inflation rates (with sound fiscal/debt policies)
- The larger the number of countries in an EMU, the more difficult it is to fulfill the Optimal Currency Area (OCA) conditions.
- When the EMU was devised in the early 1990s, some of the 15 EU members met some of the OCA criteria reasonably well. But many countries in the periphery of Europe (Greece, Portugal) did not.

Despite OCA concerns, the EMU proceeded because:

- The EMU’s main driver was political: avoid future armed conflicts and enhance EU’s prestige.
- There was the hope that the EU’s regional policies, that provide for some automatic transfers to the poorer regions particularly in agriculture, would promote convergence in economic development levels.
- There would be tough entry criteria, and rules limiting fiscal budget deficits and public debt rules would be enforced after entry (as agreed upon under the Maastricht Convergence Criteria).
- There was also the hope that gradually over time, future measures would be taken to meet OCA conditions.

The Maastricht Criteria

Germany’s willingness to enter the Euro and give up the DM was tied to strict conditions that EU countries must accept to be admitted to the Eurozone: the 1992 Maastricht Convergence Criteria:

1. The governments’ annual budget deficits should not be more than 3% of GDP
2. The level of sovereign (public) debt should be not more than 60% of GDP; otherwise governments had to reduce it over time.
3. The inflation rate should be maintained within 1.5% of the average of the three lowest inflations in the EMU
4. Long-term interest rates should be within 2% of the three best anti-inflationary performers
5. The candidate country should spend two years in Exchange Rate Mechanism-2 (ERM-2), whereby exchange rate fluctuations must remain within +/- 15% from the Euro.

Stability and Growth Pact (SGP)

- The Eurozone members accepted a subset of the Maastricht criteria and adopted the Stability and Growth Pact (SGP) in 1997.
- The SGP contained Maastricht conditions 1 and 2 (limits on the ratio to GDP of fiscal budget deficits (3%) and government debt (60%)
- The SGP hoped that prudent fiscal policies of EMU members will be enough to preserve the EMU.
- Any breach of SGP would lead to warning, then sanctions.
- Breach procedures started against Portugal (2002) and Greece (2005); warnings were sent, but fines never levied.
- No sanctions were imposed against France and Germany in 2003-2004 despite their breaches of the SGP;
- About 60 breaches took place during the past decade; no fines or other penalties were ever imposed

Consequences for EMU’s Members

- EMU members give up their currency and foreign exchange rate policies. Devaluations were no longer a tool available to deal with economic shocks.
- EMU members also gave up their independent monetary policies (possibility of adjusting money supply and interest rates) which were transferred to the European Central Bank (ECB).
- The ECB unified interest rates for identical classes of borrowers and lenders. The ECB would act as the “lender of last resort” for EMU commercial banks, but not for governments. It will not become an instrument to bail out government debt.
- Trade that used to be foreign trade becomes domestic trade; currency conversion costs and exchange rate risks disappear.

The Introduction of the Euro

- The Euro was introduced in 1999 and in paper form in 2000-2002.
- Of EU’s 15 members signing the Maastricht Treaty, the UK opted out and Denmark and Sweden delayed entry by missing the SGP.
- The remaining 12 introduced the Euro during 1999-2002.
  - North-fiscally-prudent: Germany, Austria, The Netherlands, Belgium, Luxembourg, Finland, Ireland
  - South-fiscally-loose: Portugal, Italy, Greece, Spain (PIGS-Periphery)
  - In the middle: France
- Subsequent EU members are obliged to join the EMU, after having met the Maastricht criteria.
- New Eurozone entrants included: Slovenia (2007); Cyprus (2008), Malta (2008), Slovakia (2009), and Estonia (2011)
- Thus, the Eurozone currently has 17 members, out of 27 in the EU.
- Other countries required to join the Eurozone eventually include: Poland, Czech, Hungary, Romania, Bulgaria, Latvia, Lithuania.

The Current Euro Crises

- The ongoing crisis in the periphery of Europe began in Greece in 2009, with the discovery of its faked accounts; a fiscal deficit of 6% of GDP turned out to be 13%. The crisis then spread to Ireland and Portugal in 2010, and to Spain and Italy in 2011.
- These five countries have in common that during the years of economic expansion, either the public sector (Greece, Italy) or the private sector (Ireland, Spain) incurred un-sustainable levels of debt.
- This debt was poorly invested either in government current expenses (Greece, Portugal) or in speculative real estate (Ireland, Spain).
- In addition to high debt, given the high level of “social” benefits in Europe, when the crisis reduced fiscal budget revenues, all these countries incurred very high fiscal deficits to pay for social benefits, that had to be financed with debt.
- The increases in debt were encouraged by low interest rates generated by the use of a common currency, the Euro, which created the illusion among investors that the default risks were similar across the Euro countries, charging almost identical interest rates across Europe.

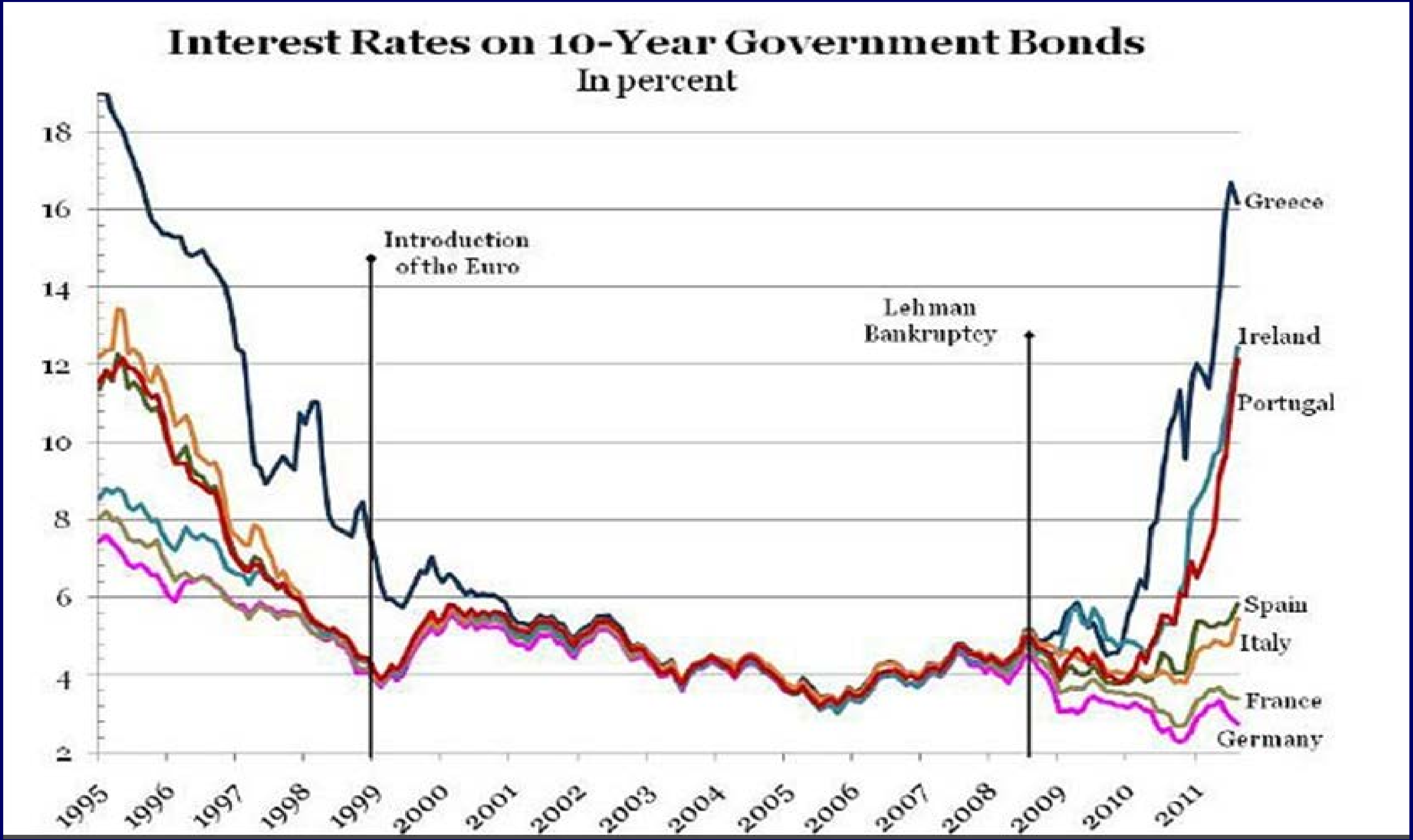
- The current crisis involves the risk that some of the highly-indebted EMU countries may default on their public debt, precipitating banking crises around the world and even leading to the collapse of the Euro.
- This would greatly damage the prestige of the Euro and the Eurozone, reversing the integration process in Europe.

Brief History of the Development of the Euro Crisis.

- Paul Krugman has provided a good description of the Euro history:
- The new Euro introduced in 1999 instilled a new sense of confidence in Europe, especially for those European countries that had been considered investment risks.
- Germany benefitted by expanding it s exports to the periphery.
- Greece, with its long history of debt defaults and high inflation, was one of the main initial beneficiaries of this increased confidence.

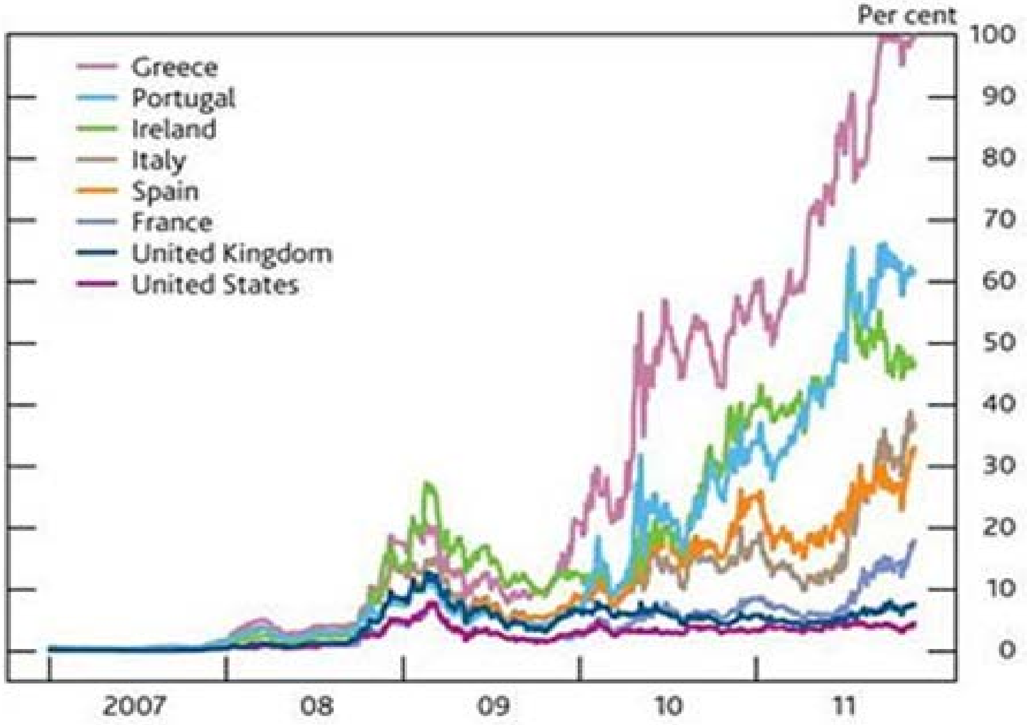
- Until the late 1990s, Greece’s poor fiscal policies was reflected in its bond yields: investors would buy bonds issued by the Greek government only if they paid much higher interest than bonds issued by governments perceived as safe, like those by Germany.
- As the Euro’s entry approached, however, the risk premium on Greek bonds was reduced significantly.
- This happened because investors felt that Greek debt would be immune from default: the European Central bank would intervene to avoid it.
- Indeed, by the middle of the 2000s just about all investors’ concerns of country-specific fiscal risks had vanished.
- Greek bonds, Irish bonds, Spanish bonds, Portuguese bonds — they all traded at similar rates, as if they were as safe as German bonds.
- As interest rates converged in Europe, the formerly high-interest-rate countries found debt cheap, and borrowed excessively from banks.
- Mistakes were made by borrowers and lenders: as a result, the debt problems of Europe’s periphery are also the problems of European banks.

- One of the key drivers for excessive borrowings and the crisis was the convergence of interest rates in the Eurozone:



- Despite differences in public debt levels, before 2008 the market saw no differences in default probabilities.

Chart 1.1 Market-implied default probabilities over the next five years for selected sovereign debt[a]



Sources: Markit Group Limited and Bank calculations.

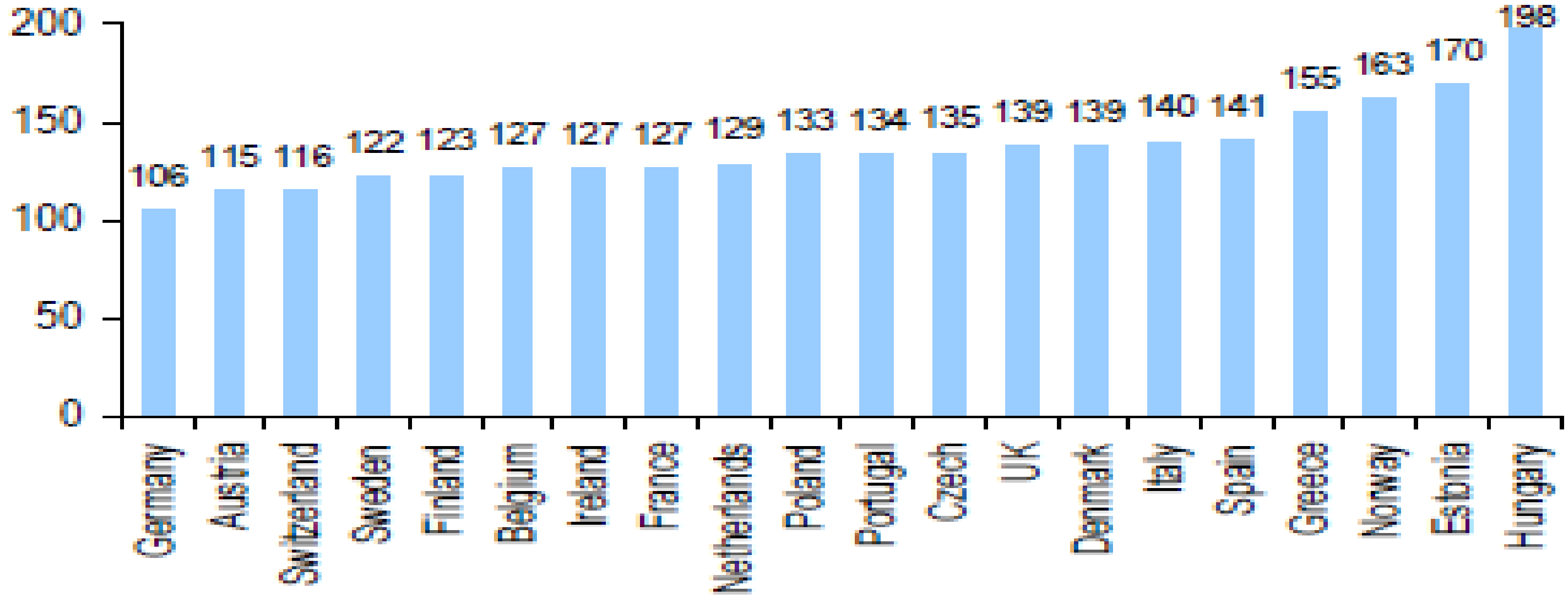
[a] Probability of default, derived from CDS premia, from the perspective of a so-called 'risk-neutral' investor that is indifferent between a pay-off with certainty and an uncertain pay-off with the same expected value. If market participants are risk-averse, these measures may overstate actual probabilities of default. A loss given default of 60% is assumed.

- With low borrowing rates, the governments of Greece, Portugal and Italy incurred large debts.
- A lot of the Greek debt was used for Defense (due to fears about Turkey) and was financed principally by German and French banks.
- Portugal also incurred significant deficits & public debt due to large fiscal expenditures, mismanagement and a large bureaucracy.
- But elsewhere, private entities were the big borrowers.
- Ireland and Spain had huge real estate booms: home prices rose 180 percent from 1998, just before the euro was introduced, to 2007.
- Lenders and exporters also benefitted: in the 1990s, German economy was depressed due to low demand from local consumers.
- But it recovered in the decade that followed, thanks to an export boom driven by its European neighbors' large spending.
- Everybody benefitted and things were going well: the Euro was great success.
- This success encourage countries in the periphery to increase wages at a faster pace that elsewhere.

- Periphery countries increased wages excessively

Chart 1: Unit labor costs indexed to 1999 (EMU launch) equals 100

For example, Germany at 106 indicates that unit labor costs have increased by 6% cumulatively since 1999.



Source: OECD

- Europe regarded periphery wage increases as positive signals of convergence. But these countries lost competitiveness.

- **But then the bubble burst.**
- The crisis in the US was in part due to its house subprime borrowers who took on mortgages too big for their incomes to be repaid.
- Similarly, in Europe, its periphery economies borrowed much more than they could really afford to pay back.
- This excessive borrowing was largely financed by banks in France, Germany, Belgium and other low-interest-rate countries.
- In the Euro periphery, real estate bubbles temporarily concealed the underlying un-sustainability of the borrowing: as long as housing prices kept rising, borrowers could always pay back previous loans with more money borrowed against their properties.
- In Europe, the initial damage came from the collapse of the real estate bubbles, which stopped the Ponzi scheme and devastated employment.

- In the Euro periphery, real estate bubbles temporarily concealed the underlying un-sustainability of the borrowing: as long as housing prices kept rising, borrowers could always pay back previous loans with more money borrowed against their properties.
- In Europe, the initial damage came from the collapse of the real estate bubbles, which stopped the Ponzi scheme and devastated employment.
- Furthermore, in late 2009, the European crisis entered a new phase.
- First Greece, then Ireland, Portugal, Spain and Italy suffered drastic losses in investor confidence and a significant rise in borrowing costs.
- In Greece the cause is clear: the government concealed its large deficits and public debt through the use of financial derivatives.
- When the Greek government changed in 2009, the accounting fictions came to light; suddenly it was revealed that Greece had both a much bigger deficit and substantially more debt than anyone had realized.
- Investors, understandably, demanded higher rates to lend more.

- But before the crisis Spain and Ireland had good fiscal situations, with balanced budgets and low public debt. What went wrong?
- First, there was a large direct fiscal effect from the recession: Revenue plunged in both Spain and Ireland, in part because tax receipts depended heavily on real estate transactions.
- And as unemployment soared, so did the cost of unemployment benefits.
- Europe has extensive social programs to protect its citizens.
- As a result, both Spain and Ireland went from budget surpluses just before the crisis to huge budget deficits by 2009.
- Then there were the costs of bank clean-up, which were especially high in Ireland, where banks had lent excessively in the boom years.
- When the real estate bubble burst, the solvency of Irish banks was immediately impaired.
- In an attempt to avert a massive run on the financial system, Ireland’s government guaranteed all bank debts — loading the government itself with those debts, bringing its own solvency into question.
- Big Spanish banks were well regulated by comparison, but there was concern about the status of smaller savings banks and their rescue costs.

- Still, there are other nations — in particular, both the United States and Britain — that have been running deficits that, as a percentage of GDP, are comparable to the deficits in Spain and Ireland.
- Yet they haven’t suffered a comparable loss of lender confidence.
- What is different about the Euro countries?
- The answer is probably that it is the Euro itself that makes Spain and Ireland so vulnerable.
- In fact, membership in the Euro means that these countries cannot issue their own currency (print their money) to service their debt.
- The Euro has delegated them to the category of many developing countries that must issue debt in foreign currencies as they can not issue debt in their own currency to deal with economic shocks.
- Also, without a devaluation option, these countries have to deflate their prices and wages to regain competitiveness.
- The trouble with deflation is not just the coordination problems and resistances to get wages and prices down.
- Even when countries successfully drive down wages, they run into another problem: incomes are falling, but debt is not.

- As the American economist Irving Fisher pointed out almost 80 years ago, the collision between deflating incomes and unchanged debt can greatly worsen economic downturns.
- Suppose the economy declines for whatever reason: spending falls and so do prices and wages. But debts do not, so debtors have to meet the same obligations with a smaller income; to do this, they have to cut spending even more, further depressing the economy.
- The way to avoid this vicious circle, Fisher said, was monetary expansion that reverses deflation.
- And in America and Britain, the Federal Reserve and the Bank of England, respectively, are trying to do just that.
- But Greece, Portugal, Ireland, Spain and Italy do not have that option — they don't even have their own monies, and in any case they need deflation to get their costs in line.
- Over the course of the past two years, these countries became caught up in a vicious financial circle: as potential lenders lost confidence, the interest rates that they had to pay on the debt rose, undermining future prospects, leading to a further loss of confidence and even higher interest rates.

The Dollar –versus- the Euro as OCAs

- A single currency has advantages; but forming a currency union means sacrificing economic flexibility.
- How serious is this loss of flexibility depends on whether the countries meet OCA conditions, mainly on the degrees of fiscal budget integration and labor mobility.
- Paul Krugman (NY Times) made the made the following comparison between two small economies in trouble.
- The nation of Ireland and the state of Nevada have much in common. Both are small economies of a few million people highly dependent on selling goods and services to their neighbors (other states or nations).
- Both were boom economies for most of the past decade. Both had huge housing bubbles, which burst painfully. Both are now suffering roughly 14 percent unemployment. And both are members of currency unions: Ireland, of the euro zone, Nevada, of the dollar.
- But Nevada's situation is much less desperate than Ireland's.
- First of all, the fiscal side of the crisis is less serious in Nevada, even though budgets in both Ireland and Nevada have been hit hard.

- This is because much of the spending Nevada residents depend on funds from federal, not state, programs. In particular, retirees who moved to Nevada don’t have to worry that the state’s reduced tax take will endanger their Social Security checks or their health coverage.
- In Ireland, by contrast, both pensions and health spending are at risk.
- Also, Nevada, unlike Ireland, doesn’t have to worry about the cost of bank bailouts, not because the state has avoided large loan losses but because those losses, for the most part, aren’t Nevada’s problem.
- Thus Nevada accounts for a disproportionate share of the losses incurred by Fannie Mae and Freddie Mac, the US government-sponsored mortgage companies — losses that, like Social Security and Medicare payments, will be covered by Washington, not Carson City.
- Furthermore, under federal economic stimulus programs, the federal government has transferred billion of dollars to the states that have helped to service their public debts and provide state employment.
- And there’s one more advantage to being a US state: it’s likely that Nevada’s unemployment problem will be greatly alleviated over the next few years by emigration to other states.

- Because of emigration, even if the lost jobs don’t come back to Nevada, there will be fewer workers chasing the jobs that remain.
- Americans are extremely mobile. Emigration will bring Nevada’s unemployment rate back in line with the U.S. average within a few years, even if job growth in Nevada continues to lag behind.
- But Europeans are less willing to migrate to other places.
- Over all, then, even as both Ireland and Nevada have been especially hard hit, Nevada’s medium-term prospects look much better.
- What does this have to do with the case for or against the euro?
- When the single European currency was first proposed, a question was whether it would work as well as the dollar does here in America.
- And the answer, clearly, was no — for exactly the reasons the Ireland-Nevada comparison illustrates.
- Europe isn’t fiscally integrated: German taxpayers don’t automatically pick up part of the tab for Greek pensions or Irish bank bailouts.
- And while Europeans have the legal right to move freely in search of jobs, in practice imperfect cultural integration and the lack of a common language makes workers less geographically mobile.

Fundamental Causes of the Euro Crisis

- Widespread non-compliance with Maastricht criteria and SGP.
- Serious shortcomings in meeting **OCA conditions** needed to make a common currency workable: in particular, Europe lacks strong labor mobility across countries, common fiscal budget policies, a good degree of fiscal integration, and has different development levels.
- Low interest rates enjoyed by the EMU's less developed members enabled large borrowings and permitted them: (1) to increase wages and pensions at faster pace than the core countries, loosing competitiveness; (2) to maintain large inefficiencies (widespread tax avoidance and large public administrations); and (3) to finance bubbles (real estate in Spain/Ireland) and other expenditures (Greece).
- Excessive lending at unjustified low real interest rates by core EU banks to the public & private sectors of EMU's periphery countries.
- A "one-size-fits-all" monetary policy was unsuitable for many.
- The global liquidity crisis contributed to the accumulation by many of large sovereign debts, compounding these causes.

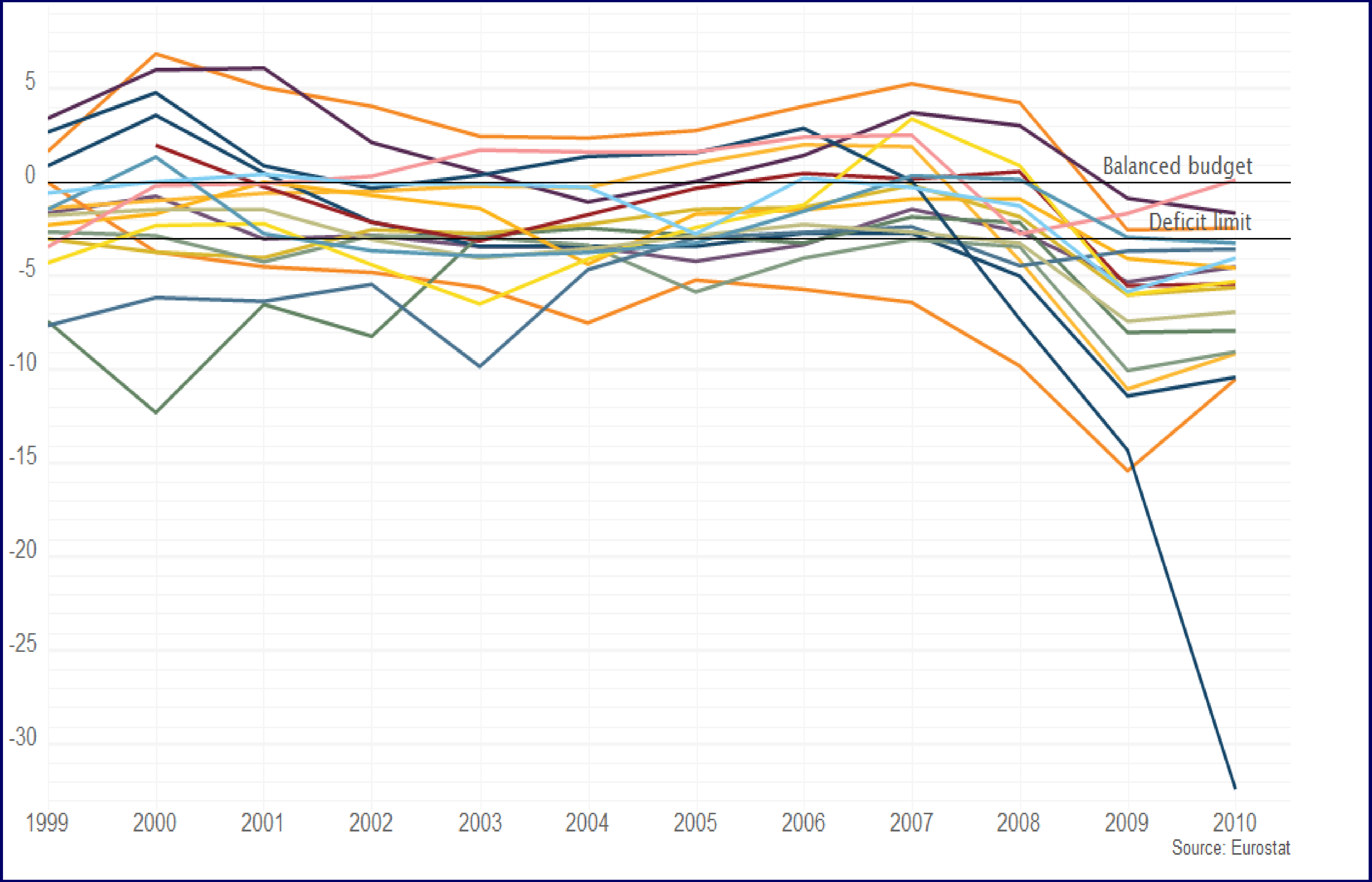
The Crisis in the Periphery of Europe

Government Debt and Fiscal Deficits in Europe (2009)

	Govt Debt	Govt Debt	2009 Fiscal Deficit
	(%GDP)	(€ mll)	(% DGP)
Italy	115.8	1,760,765	5.3
Greece	115.1	273,407	13.6
Belgium	96.7	326,606	6.0
France	77.6	1,489,025	7.5
Portugal	76.8	125,910	9.4
Germany	73.2	1,762,211	3.3
Malta	69.1	3,948	3.8
UK	68.1	1,067,819	11.5
Austria	66.5	184,105	3.4
Ireland	64.0	104,667	14.3
Netherlands	60.9	347,021	5.3
Cyprus	56.2	9,527	6.1
Spain	53.2	559,650	11.2
Finland	44.0	75,217	2.2
Slovenia	35.9	12,519	5.5
Slovakia	35.7	22,585	6.8
Luxembourg	14.5	5,464	0.7

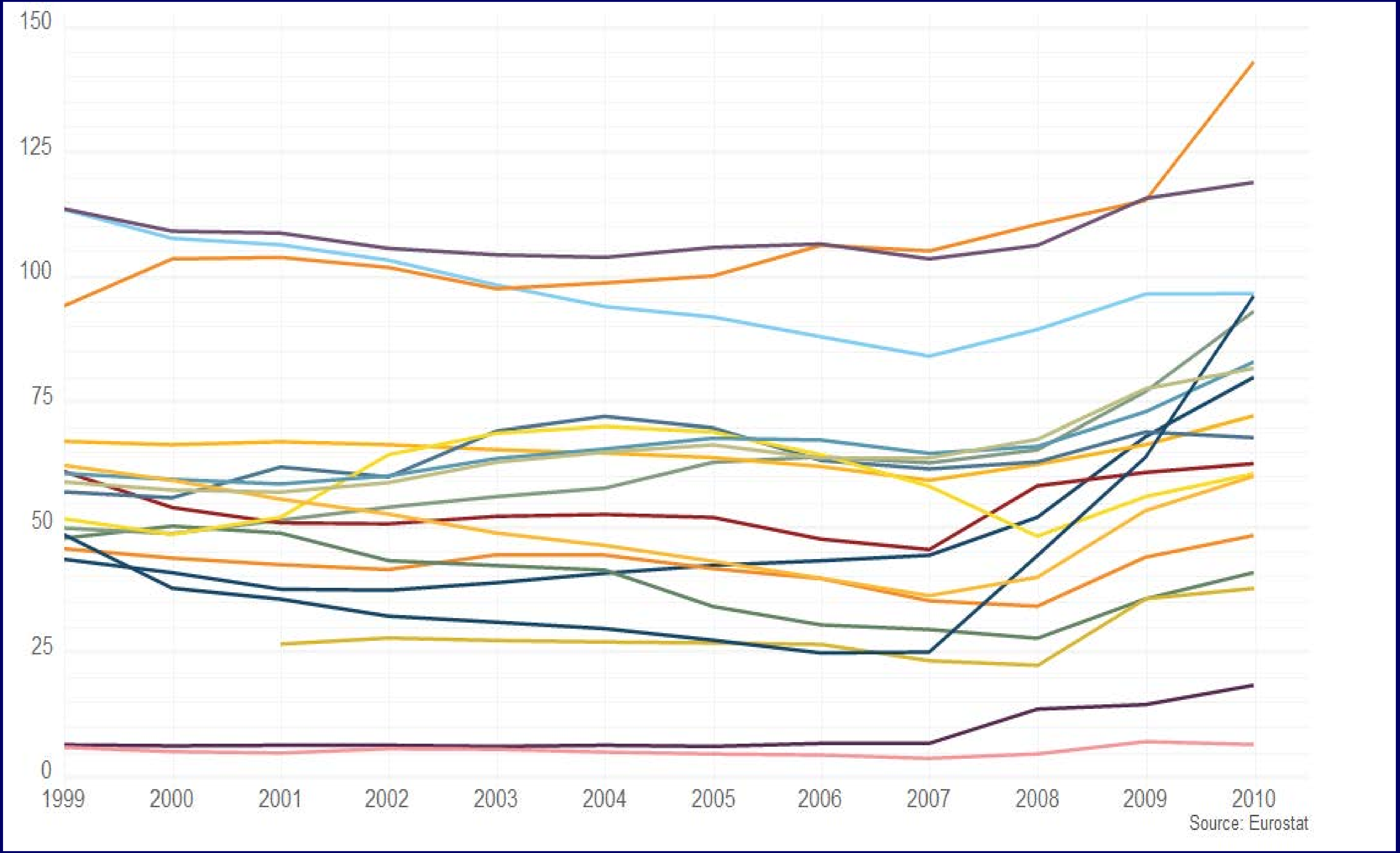
The Euro Stability Pact limited Public Debt to 60% of GDP and Fiscal Deficits to 3% of GDP.
Only two countries, Finland and Luxemburg met the two criteria at the end of 2009.

Only Estonia, Luxemburg & Finland met the 3% fiscal deficit criteria



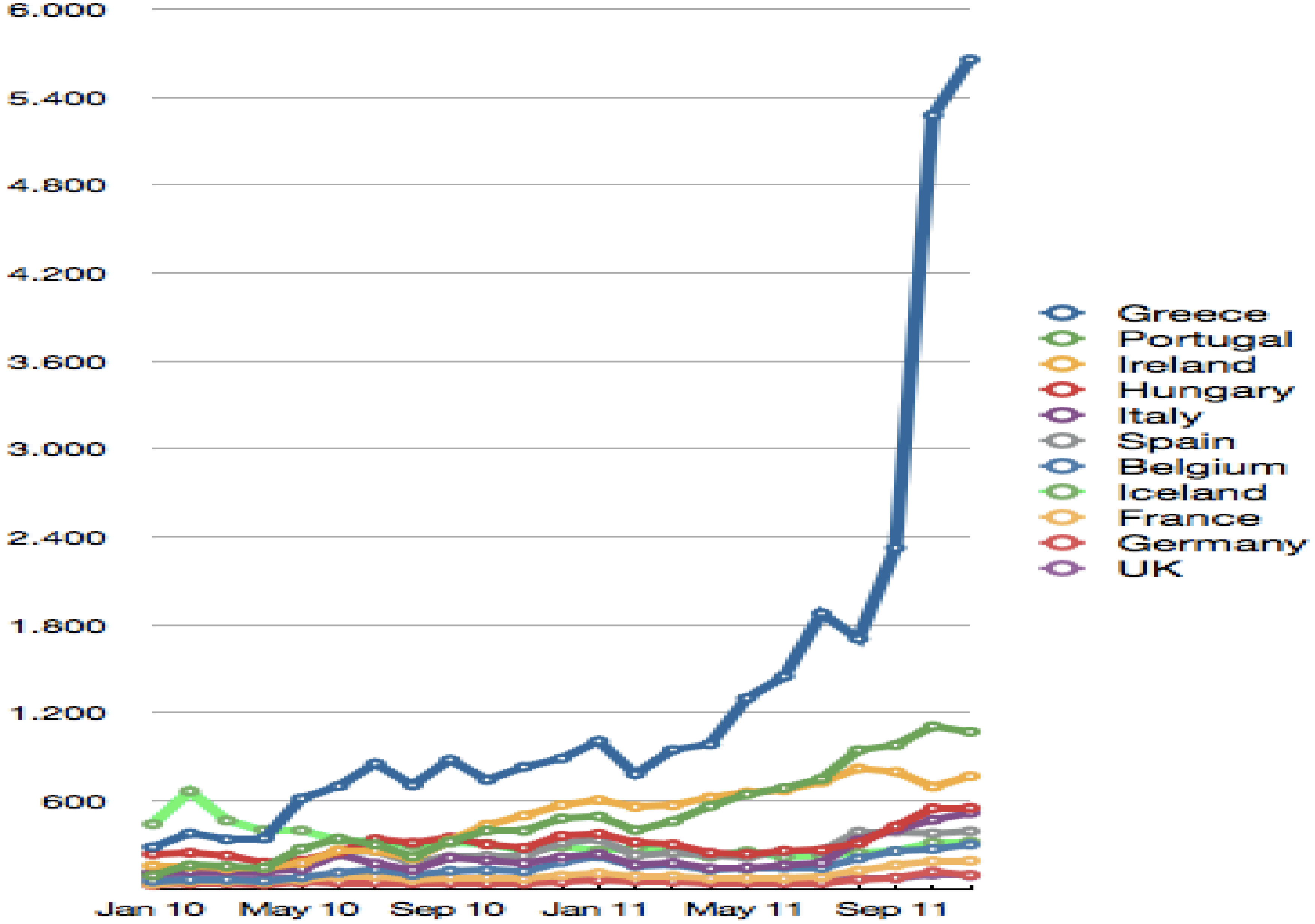
Source: Eurostat

Greece, Italy, Belgium and Ireland had the highest public debt to GDP ratios. Even Germany and France exceeded the 60% limit.



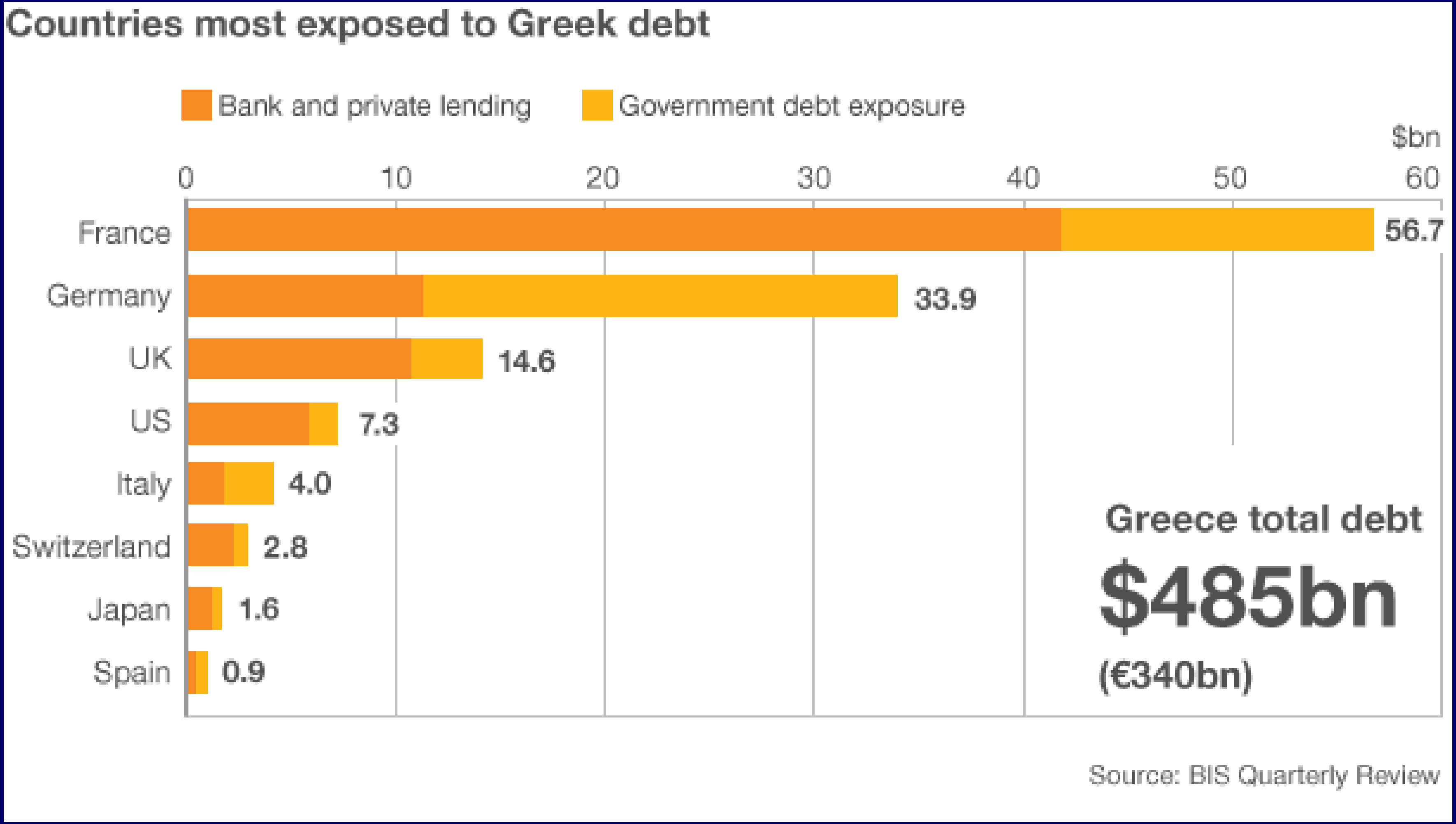
Source: Eurostat

Sovereign credit default swaps



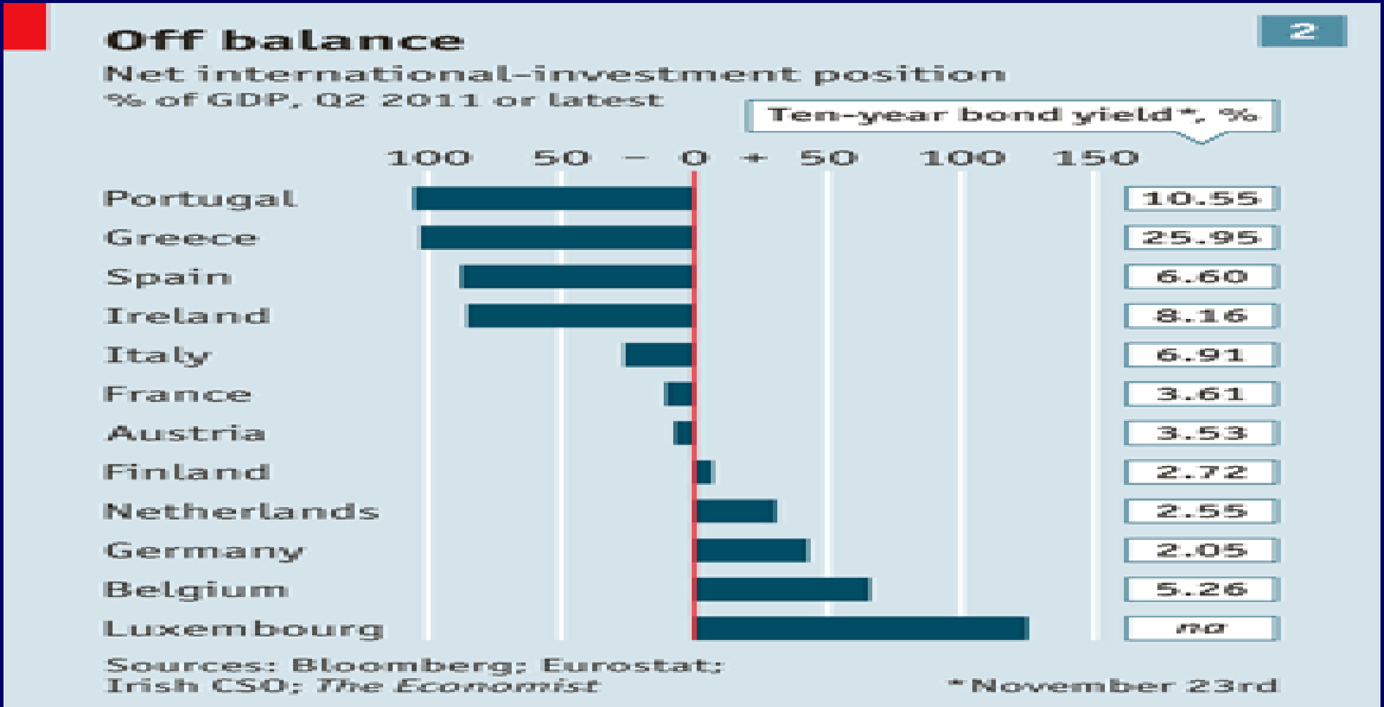
Source: Bloomberg

- European Banks would incur heavy losses with a Greek default.



Source: BIS Quarterly Review

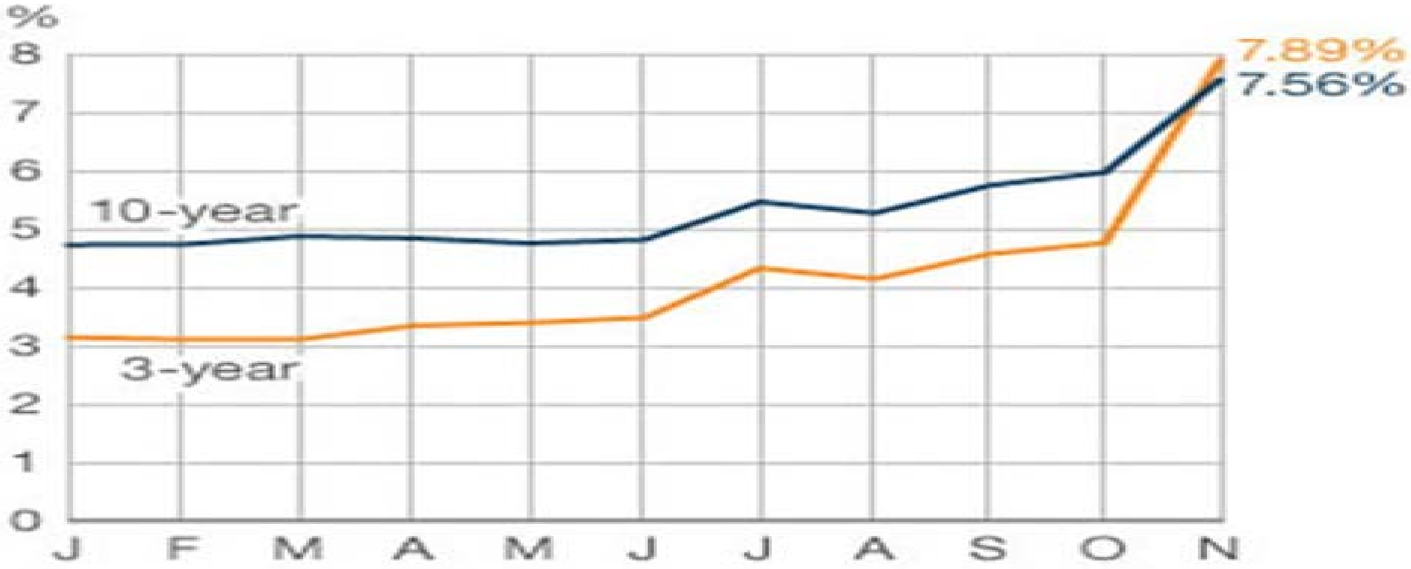
- **The current cost of credit in each euro-zone country is related to the balance of its international debts.**
- Germany, which is owed more than it owes, still has low bond yields.
- Greece, which is heavily in debt to foreigners, has a high borrowing cost.
- Ireland is unusual in that a large chunk of what it owes is in the form of equity (e.g., foreign-owned factories and offices) and so does not need to be refinanced.



- **If Italian yields** continue to increase, the markets could refuse to rollover maturing debt at any price or the fiscal burden would spiral out of control.
- Italy would be forced to default on the world’s third largest government debt.
- No Italian banks would survive, causing a global financial crisis far worse than the 2008 crisis following the collapse of Lemans Brothers.

Italian government bond yields, 2011

Italy is now paying a higher rate for new short-term financing than for new longer-term borrowing. Yields at auction on government bonds:



Source: Bank of Italy

Consequences of the Euro Crises

1. Inability to Serve External Public Debt.

- Raising interest rates in periphery countries led to the inability of these EMU governments to fully service their external obligations.
- Since the market had assumed that all EMU governments' Euro obligations are jointly and severally guaranteed by the Eurozone and by the ECB, a default by one Eurozone Government would call into question the debt-servicing abilities of other heavily indebted Eurozone governments.
- As the cost of (re)financing their debts rose to high levels, their default could follow. And so would then the collapse of the EMU.

2. Impact on EU Banks

- Since EU banks hold huge volumes of Eurozone sovereign (and private) debt, a chain of defaults would threaten several nations' banking systems.

Consequences of the Euro Crises

3. Competitiveness Loss in the Periphery.

- Since the introduction of the Euro, excessive borrowings led to a loss of competitiveness of periphery countries as their wages and prices rose faster, and productivity slower, than those of their EMU partners.
- From 1999 to 2010, wages increased by 40%-55% in Greece, Italy and Spain; whereas wages increased by only 6% in Germany.
- In Spain and Ireland private borrowings led to high wages driven up by housing booms. But then, with extensive overbuilding, the booms went bust. Housing construction could no longer be a source of employment.
- In 2007, construction accounted for 13 % of total employment in both Spain and Ireland, more than twice as much as in the United States.
- So when the building booms came to a halt, employment crashed.
- Overall employment fell 10 % in Spain and 14 % in Ireland.
- With devaluation not an option, high wages make it almost impossible for some countries, such as Greece – to grow and bring large Current Account deficits (and the resulting external debt) under control.

Consequences of the Euro Crises (cont’d)

4. Inability of Periphery Countries to Resume Growth.

- To address the crises, these countries require major reduction in domestic wages and costs (internal devaluation) to revive economic activities, reduce unemployment and improve competitiveness.
- But getting wages and prices to fall is difficult: labor unions will resist pay cuts, especially without assurance that prices will fall.
- Also cutting wages is also hard when people have large debts.
- Without devaluation options, and with resistance to “internal devaluation”, periphery countries will face difficulties in resuming sustained economic growth.
- If these countries had had their own currency, they wouldn’t have to go through the protracted pains of cutting wages: They could just devalue their currency and they would effect a de facto wage cut.
- So while there are benefits of a common currency, there are also important potential advantages to keeping your own currency.

Management of the Eurozone Crisis

- The shortcomings of the Eurozone have led to a major crisis.
- So far only stop-gap measures have been implemented.
- Until recently, crisis management has concentrated on avoiding or postponing public default by Greece, and those of other heavily indebted countries, by providing **liquidity**.

– But Greece faces a public debt **solvency problem** as its public debt/GDP ratio approaches 170%.

– Until mid-2011, the problem was treated by the Eurozone leadership and the IMF as if Greece had a liquidity, not a solvency problem.

– They gave Greece large loan packages, with strict conditionality; but no the needed debt relief to reduce the ratio of public debt to GDP.

– Most studies have shown that a public debt in excess of 60-80% of GDP is not sustainable as debt service would explode exponentially.

– The ECB has been buying Greek and other public debt on the secondary market and gave large loans to Greek and other periphery banks against their government bonds as collateral.

Management of the Eurozone Crisis (cont'd)

- In mid 2010 a temporary European Financial Stability Facility (EFSF) was created to issue bonds up to €440 billion, guaranteed by EMU states.
- The IMF added €250 bn to EFSF and the EC, €60 bn (total €750 bn)
- These funds would be used for:
  - on-lending to those countries in difficulty;
  - buying sovereign debt on the secondary market to reduce interest rates for debt of these countries, and
  - recapitalizing banks
- Each transaction is subject to conditions negotiated with the EC, the ECB, the IMF and approved by the Eurozone's finance ministers.
- This amount can be sufficient to give temporary help to Greece & Portugal and to a few exposed banks), but is grossly inadequate to also help other sovereign debtors that could again be again "under attack" (such as Ireland, Spain, Italy).

Management of the Eurozone Crisis (cont'd)

- In late 2011 it was agreed that starting in 2013 the EFSM will be replaced by a permanent **European Stability Mechanism** (ESM), with a total subscribed capital of €700bn & a lending capacity of €500bn.
- The ESM will have a sovereign debt default resolution mechanism: countries judged to be insolvent will have to undergo debt restructuring as a precondition of access to the ESM.
- And sovereign debt restructuring will have to involve substantial losses by private investors before the taxpayers of the creditor countries would be burdened.
- Details will have to be worked out and the treaty approved by national legislations.
- Nevertheless, to do the job, ESM lending capacity should be raised substantially to over €2 trillion, an unlikely possibility.

Management of the Eurozone Crisis (cont’d)

- In July 2011 the sovereign debt burdens of Greece, Portugal and Ireland were eased somewhat by significant maturity extensions of public debt (held by official and private creditors) and lower interest rates charged on new official loans. But these actions did little to make Greece solvent as maturity extension by private bondholders was voluntary to avoid a “credit event” that would trigger payment on CDS contracts.
- In October 2011, the EU finally agreed in principle that Debt Cancellation for Greece was a necessary way to address the crisis. It agreed to the following three steps:
    1. 50% of some part of the Greek public debt held by private commercial banks would be cancelled (about €100 billion).
    2. The affected commercial banks would be required to raise €100 billion to recapitalize the bank’s equity/asset ratio to 9%
    3. The ESEF would be increased to €1.0 trillion to support periphery countries and affected banks.
- The implementation of these measures are still pending, as the sources of financing were kept undefined and political approvals are needed.

Plausible Scenarios for Resolving the Euro Crisis

1. **Muddling through**: continued reactive steps, delaying a credible, lasting resolution of the crises.
2. **Orderly default by Greece:** The EU and EMU banks agree to (i) cancel 50% of Greek public debt; (ii) provide capitalization support to banks that lost from the debt cancelation; (iii) the ESEF facility is expanded to provide further assistance.
3. **Disorderly default by Greece** (and others periphery countries) which forced into default by events, before Europe-wide institutions are in place to limit contagion.
4. **Greece leaves the Eurozone**, perhaps joined by others also facing severe debt problems.
5. **Germany leaves the Eurozone**, with several other EMU countries.
6. **A true fiscal union** of some kind is agreed upon.
7. **Substantial "internal devaluation**" by Greece & others through though austerity measures with little external support.

Scenario 1: “Muddling Through”

- This involves continued Eurozone/IMF rescue packages to stave off sovereign defaults by Greece and others.
- These packages have been accompanied by unending arguments between creditors & debtors about conditionality, particularly regarding fiscal austerity measures.
- The ECB continues to provide low-cost liquidity to the troubled banking systems of the indebted countries and, controversially, buying those countries’ sovereign debt on the secondary market.
- The purpose of the former was to keep weak banking systems from collapsing, fearing domino affects; of the latter, to underprop sovereign bond prices, thus keeping government borrowing costs reasonable.
- Concerns about the long-term sustainability and effectiveness of these measures are likely to keep the crises going.

Scenario 2: Orderly Default by Greece

- Arrangements are being put in place for orderly default by insolvent sovereigns while limiting the worst contagion effects.
- The bankruptcy of a sovereign would be worked out between the debtor’s taxpayers and the creditors, without support from any other nation’s taxpayers.
- In October 2011, the EU agreed that banks would cancel 50% of Greek debt and increase the size of the ESEF facility.
- The proposed ESM would help in providing support, but will need much larger borrowing power (at least €2 trillion) to assist solvent sovereigns and cross-border banks under attack.
- Europe-wide banking regulation and deposit insurance schemes will have to be put in place as the banks would be under stress.
- But such a debt restructuring would by no means end a economy’s trouble, as Greece would still have to slash spending and raise taxes to balance its budget.
- But a debt restructuring could force a real “internal devaluation”.

Scenario 3: Disorderly Default by Greece

- Default by Greece could be triggered by any number of situations:
  - a permanent walkout from the negotiations by the *troika* (EU, IMF, ECB);
  - Greece’s own decision to do so forced by domestic unrests;
  - the downgrading to junk status of its public debt by all rating agencies (a so-called “credit event”).
- Most likely other countries will also default, as investors become worry about risks in the region.
- These defaults would make a generalized banking crisis likely.
- Defaults by Greece, Portugal, Ireland and Italy would produce the following losses as percentages of bank assets to banks in Belgium (2.5%), Germany (2.5%), Spain (2.0%), France (0.8%), UK (0.5%), USA (0.3%).
- This losses represent ≈25% of the equity of German/French banks

Scenario 4: Greece Leaves the Eurozone

- The expected benefit to Greece would be regaining policy flexibility, setting its own exchange rate and interest rate, to restore competitiveness & growth.
- It might be coupled with a unilateral or negotiated sovereign debt default. A trigger could be the ECB's decision to no longer fund Greece's (presumably insolvent) banks.
- The cost to Greece would be high:
    - Massive capital flight, extremely difficult to stem
    - Euro contracts would have to be rewritten in the new local currency. Paying foreign private debt in local currency would cost much more.
    - For a time, Greece would be shut out of foreign financial markets.
- Other struggling EMU members would also have costs as potential investors tried to guess whether they might follow Greece.
- Most likely, the Euro would be in jeopardy.

Scenario 5: Germany & Some Others Exit

- The rationale – expected benefit -- of this proposal (by the former head of Germany’s Industrial Federation)* is that instead of uniting Europe, the Euro and its rescue attempts have increased friction and no end is in sight until the crisis is solved.
- Germany (with Austria, Finland, The Netherlands) should exit the Eurozone, create a new currency, leaving the Euro where it is. The Euro’s exchange rate would decline, improving the competitiveness of the remaining members.
- The cost to the departing countries would be writing off a large portion of the guarantees they had already provided to help refinance Greece, Portugal and the others. “As much of this money is already lost, this is an acceptable price for the ‘exit ticket’,” say its advocates.
- Proponents believe that rescue efforts should focus on banks, not on countries

* ***Financial Times***, August 30, 2011.

Scenario 6: Fiscal Union

- The degree of fiscal integration believed to be sufficient to be a solution to the Euro’s crisis would be an agreement to issue common Eurozone bonds, authorizing up to €2 trillion, guaranteed by all EMU members.
- The European Commission would control the fiscal budgets of countries borrowing from the facility, in order to ensure sound policies.
- Since these bonds would be guaranteed by the EU as a whole, they would offer a way for troubled economies to avoid vicious circles of falling confidence and rising borrowing costs.
- On the other hand, they would potentially make governments responsible for one another’s debts — a point Germans make: the Germans are adamant that Europe must not become a “transfer union,” in which stronger governments routinely provide aid to weaker.
- It is unlikely that the core Eurozone countries would agree to this as they believe that it would generate moral hazards and poor fiscal behavior.
- It is also unlikely that the periphery financial beneficiaries would agree to surrender the required national sovereignty over their fiscal affairs.

Scenario 7: “Internal Devaluation”

- Troubled European economies could reassure creditors by showing sufficient willingness to endure pain and thereby avoid either default or devaluation.
- The Baltic - Estonia, Lithuania and Latvia - have been willing to endure very harsh fiscal austerity while wages gradually come down to restore competitiveness, a process known as “internal devaluation.”
- Have these policies been successful? It depends on how you define “success.” The Baltic nations have, to some extent, succeeded in reassuring markets, which now consider them less risky than Ireland, let alone Greece.
- Meanwhile, wages have come down, declining 15 percent in Latvia and more than 10 percent in Lithuania and Estonia.
- All of this has, however, come at immense cost: the Baltics have experienced Depression-level declines in output and employment.
- It is highly unlikely that the people in EMU countries will allow these levels of hardship.

Implications of the Euro Crisis and Scenarios

- The euro crisis has exacerbated the problems of the international financial system by making the Euro less acceptable as an international reserve & vehicle currency to supplement the US Dollar.
- The crisis has reduced the stability of the Euro as a store of value.
- Euro-denominated financial assets and liabilities now entail greater risks than before the crisis.

Euro’s Long Term Solutions

If the Euro survives the current crisis, there are some further measures that the countries must take to ensure the Euro’s long term viability.

Problem of Remaining Current Account Imbalances

- As long as capital flows remain unregulated within the Eurozone, asset bubbles and current account imbalances are likely to continue.
- A country that runs a large current account deficit (i.e., it imports more than it exports) must ultimately be a net importer of capital; this is a mathematical identity implied by the balance-of-payments.
- In other words, a country with a current account deficit must either borrow to pay for excess imports or decrease its savings reserves.
- Conversely, Germany's large trade surplus means that it must either increase its savings reserves or be a net exporter of capital, lending money to other countries to allow them to buy German goods.
- The 2009 trade deficits for Italy, Spain, Greece, and Portugal were estimated to be $43 billion, $75 bn, $36 bn, and $25 bn, respectively, while Germany's trade surplus was $188.6 bn.

- With independent currencies, a country with a large trade surplus would see the value of its currency appreciate relative to other currencies, which would reduce the imbalance as the relative price of its exports increases.
- This appreciation occurs as the importing country sells its currency to buy the exporting country's currency used to purchase the goods.
- On the other hand, a country with large trade deficits could encourage domestic saving by restricting or penalizing the flow of capital across borders, or by raising interest rates, although this benefit is likely offset by slowing down the economy and increasing government interest payments.
- But the countries involved in the Eurozone crisis are on the Euro, so individual interest rates and capital controls are not available.
- The only solution left for a Eurozone country is to raise the country's level of saving (public and private).
- This involves reducing fiscal budget deficits and changing consumption and savings habits. For example, if a country's citizens saved more instead of consuming imports, this would reduce its trade deficit.
- Furthermore, Europe may have to re-consider whether its generous welfare programs are sustainable and what needs to do to compete.

Common Fiscal Policy (European Treasury)

- Over the long term, the EMU countries need a common fiscal policy, which may involve the creation of a new authority responsible for tax policy and spending oversight of EMU countries, temporarily called the European Treasury. It may also require the issuance of Eurozone bonds guaranteed by EMU countries, but this is strongly objected by Germany.
- In exchange for cheaper funding from the EMU, Greece and other countries, in addition to having already lost control over monetary and foreign exchange policies, would also lose control over domestic fiscal policy.

European Stability Mechanism (ESM)

- In mid-2013, the European Stability Mechanism will be a permanent rescue fund to succeed the temporary European Financial Stability Facility.
- In December 2010 the European Council agreed a two line amendment to the EU Lisbon Treaty to allow for a permanent bail-out mechanism based on the ESM to be established in 2013, including stronger sanctions.
- In March 2011, the European Parliament approved the treaty amendment after receiving assurances that the European Commission, rather than EU states, would play 'a central role' in running the ESM, to be located in Luxembourg.

Address Slow Economic Growth

- There is concern that the threat from a double dip recession will not fade, even if the crisis is “resolved” now.
- This concern is due to the risk from a vulnerable and slow post-crisis economic recovery and further crises reverberating in the aftermath of that.
- Slow GDP growth rates correspond to slower growth in tax revenues and higher safety net spending, increasing deficits and debt levels.
- The fact is that Europe's core problem is the lack of growth. For example, Italy's economy has not grown for an entire decade. No debt restructuring will work if it stays stagnant for another decade.
- European economies - with high wages, middle-class subsidies and complex regulations and taxes - have become sluggish. In addition, they face pressures from two fronts: demography (an aging population), and globalization (which has allowed manufacturing and services to locate across the world).
- Over the long term, economic stability will only be achieved along with economic growth, which requires lower wages, greater labor mobility, and better business environment to bring in more foreign capital investments.