European Central Bank and the Euro

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What is the European Monetary System

- **European Monetary System** was originally a system of fixed exchange rates implemented in 1979 through an **exchange rate mechanism** (ERM).
- The EMS has since developed into an **economic and monetary union** (EMU), a more extensive system of coordinated economic and monetary policies.
  - The EMS has replaced the exchange rate mechanism for most members with a common currency under the economic and monetary union

Membership of the Economic and Monetary Union

- To be part of the economic and monetary union, EMS members must
    1. adhere to the ERM: exchange rates were fixed in specified bands around a target exchange rate.
    2. follow restrained fiscal and monetary policies as determined by Council of the European Union and the European Central Bank.
    3. replace the national currency with the euro, whose circulation is determined by the European System of Central Banks.

Why the Euro (EMU)?

EU members adopted the euro for 4 main reasons:

1. **Unified market**: the belief that greater market integration and economic growth would occur.
2. **Political stability**: the belief that a common currency would make political interests more uniform.
3. **The belief that German influence** under the EMS **would be moderated** under a European System of Central Banks.
4. **Elimination of the possibility of devaluations/ revaluations**: with free flows of financial assets, capital flight and speculation could occur in an EMS with separate currencies, but it would be more difficult for them to occur in an EMS with a single currency.

The EMS: 1979–1998 (1 of 4)

- From 1979 to 1993, the EMS defined the exchange rate mechanism to allow most currencies to fluctuate +/−2.25% around target exchange rates.
- The exchange rate mechanism allowed larger fluctuations (+/− 6%) for currencies of Portugal, Spain, Britain (until 1992) and Italy (until 1990).
  - These countries wanted greater flexibility with monetary policy.
  - The wider bands were also intended to prevent speculation caused by differing monetary and fiscal policies.

To prevent speculation,

- early in the EMS some **exchange controls** were also enforced to limit trading of currencies.
  - But from 1987 to 1990 these controls were lifted in order to make the EU a common market for financial assets.
- A **credit system** was also developed among EMS members to lend to countries that needed assets and currencies that were in high demand in the foreign exchange markets.

- But because of differences in monetary and fiscal policies across the EMS, market participants began buying German assets (because of high German interest rates) and selling other EMS assets.
- As a result, Britain left the EMS in 1992 and allowed the pound to float against other European currencies.
- As a result, the exchange rate mechanism was redefined in 1993 to allow for bands of +/−15% of the target value in order devalue many currencies relative to the deutschemark.

- But eventually, each EMS member adopted similarly restrained fiscal and monetary policies, and the inflation rates in the EMS eventually converged (and speculation slowed or stopped).
  - In effect, EMS members were following the restrained monetary policies of Germany, which has traditionally had low inflation.
  - Under the EMS exchange rate mechanism of fixed bands, Germany was "exporting" its monetary policy

Maastricht Treaty

- The Maastricht Treaty requires that members that want to **enter** the economic and monetary union

1. attain exchange rate stability defined by the ERM before adopting the euro.
2. attain price stability: a maximum inflation rate of 1.5% above the average of the three lowest national inflation rates among EU members.
3. maintain a restrictive fiscal policy:
   - a maximum ratio of government deficit to GDP of 3%.
   - a maximum ratio of government debt to GDP of 60%.

- The euro was adopted in 1999, and the previous exchange rate mechanism became obsolete.
- But a new exchange rate mechanism—ERM 2—was established between the economic and monetary union and outside countries.
  - It allowed countries (either within or outside of the EU) that wanted to enter the economic and monetary union in the future to maintain stable exchange rates before doing so.
  - It allowed EU members outside of the economic and monetary union to maintain fixed exchange rates if desired.

Theory of Optimum Currency Areas

- The theory of **optimum currency areas** argues that the optimal area for a system of fixed exchange rates, or a common currency, is one that is **highly economically integrated.**
  - economic integration means free flows of
    - goods and services (trade)
    - financial capital (assets) and physical capital
    - workers/labor (immigration and emigration)
- The theory was developed by Robert Mundell in 1961.

Theory of Optimum Currency Areas

- Other considerations
  - Similarity of economic structure
  - Fiscal federalism
  - Banking Union

Is the EU an Optimum Currency Area? (No)

- Deviations from the law of one price occur in many EU markets
- Regional migration is not extensive in the EU.
- There is evidence that financial assets were able to move more freely within the EU after 1992 and 1999.
- But capital mobility without labor mobility can make the economic stability loss greater
- The **structure of the economies** in the EU's economic and monetary union is important for determining how members respond to aggregate demand shocks.
  - The economies of EU members are similar in the sense that there is a high volume of **intra-industry trade** relative to the total volume.
  - They are different in the sense that Northern European countries have **high levels of physical capital per worker and more skilled labor**, compared with Southern European countries.

- The **amount of transfers** among the EU members may also affect how EU economies respond to aggregate demand shocks.
  - Fiscal payments between countries in the EU's federal system, or **fiscal federalism**, may help offset the economic stability loss from joining an economic and monetary union.
  - But relative to interregional transfers in the U.S., little fiscal federalism occurs among EU members.

The Euro Crisis

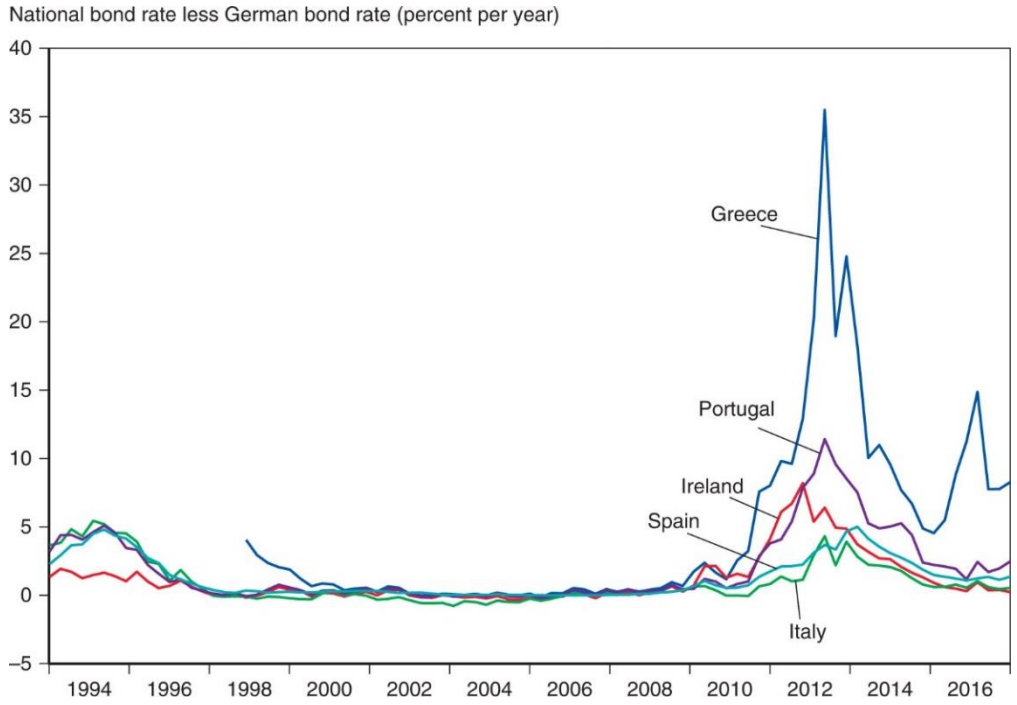
- Greece accounted only for 3% of euro's area output

Table 21.3 Assets of Some Individual Banks as a Ratio to National Output, End-2011

Bank	Home country	Bank assets
Erste Group Bank	Austria	0.68
Dexia	Belgium	1.10
BNP Paribus	France	0.97
Deutsche Bank	Germany	0.82
Bank of Ireland	Ireland	0.95
UniCredit	Italy	0.59
ING Group	Netherlands	2.12
Banco Commercial Portugues	Portugal	0.57
Banco Santander	Spain	1.19

Source: GDP data from International Monetary Fund, **World Economic Outlook** database. Data on bank assets from Viral V. Acharya and Sascha Steffen, "The 'Greatest' Carry Trade Ever? Understanding Eurozone Bank Risks," Discussion Paper 9432, Centre for Economic Policy Research, April 2013.

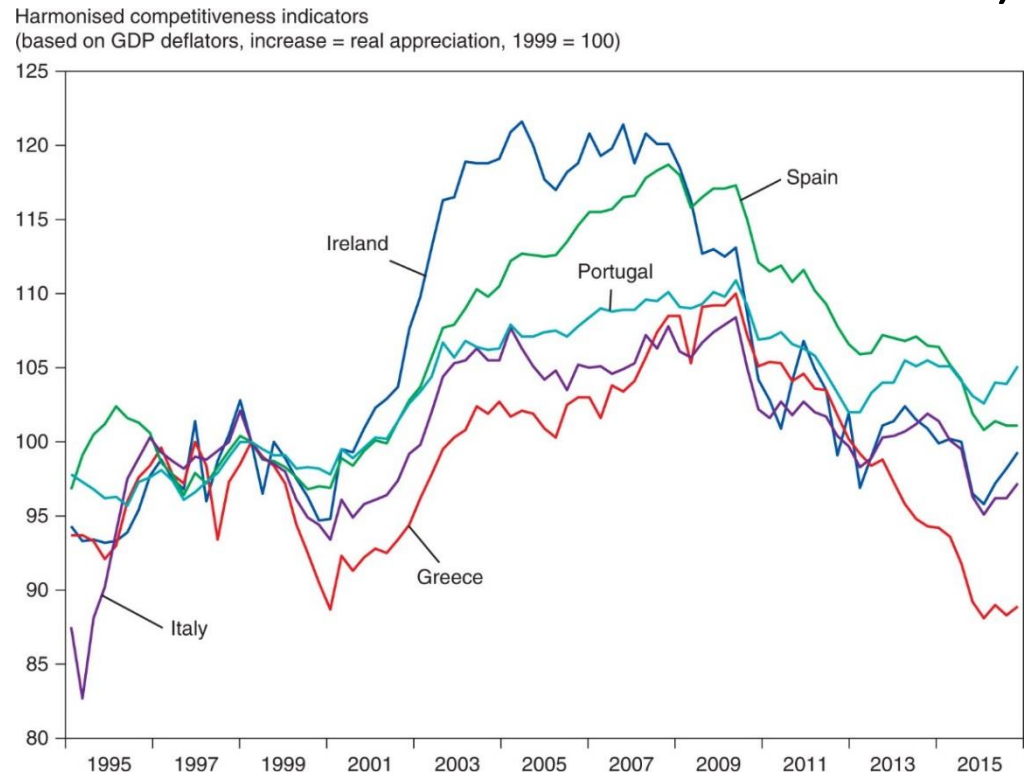
Figure 21.8 Nominal Government Borrowing Spreads over Germany



Euro countries' long-term government bond yields converged to Germany's level as they prepared to join the euro. The yields began to diverge again with the global financial crisis of 2007–2009 and moved sharply apart after the euro crisis broke out late in 2009.

Source: Datastream. Ten-year government bond interest rates.

Figure 21.9 Real Appreciation in Peripheral Euro Zone Countries (due to differentiated inflation)



After entry into the euro, real appreciation set in for peripheral euro zone countries, most noticeably the two with massive housing booms, Ireland and Spain.

Source: ECB. Harmonized multilateral competitiveness index based on GDP deflators. An increase in the index is a real appreciation (loss in competitiveness).

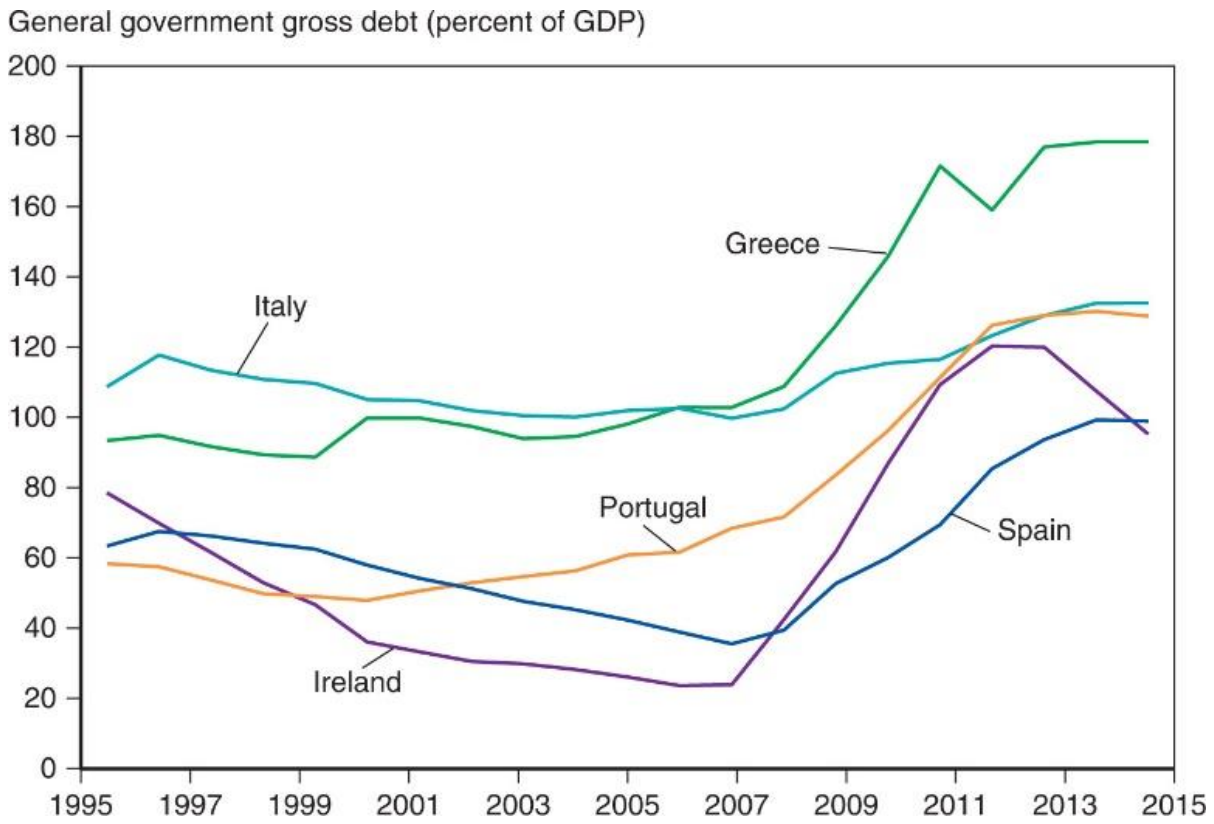
Table 21.4 Current Account Balances of Euro Zone Countries, 2005–2009 (percent of GDP)

	Greece	Ireland	Italy	Portugal	Spain	Germany
2005	−7.5	−3.5	−1.7	−9.4	−7.4	5.1
2006	−11.2	−4.1	−2.6	−9.9	−9.0	6.5
2007	−14.4	−5.3	−2.4	−9.4	−10.0	7.6
2008	−14.6	−5.3	−2.6	−12.0	−9.8	6.7
2009	−11.2	−2.9	−3.1	−10.3	−5.4	5.0

Euro Crisis

- Greece: October 2009 (Greek fiscal deficit was 12.7% double the numbers announced previously)
- Public debt was more than 100% GDP
- 2010: European Financial Stability Facility: European Commission, ECB and the IMF
- “Doom Loop”: bank distress and government borrowing problems
- March 2012: Greece restructured its government debt

Figure 21.11 Gross Public Debt to GDP Ratios in the Euro Area



Source: International Monetary Fund.

Solutions

- Fiscal Stability Treaty (2013)
- Banking union
  - Creation of a euro area deposit insurance scheme
  - Resolution of insolvent banks at euro area level

- The European recovery is strengthening and broadening appreciably. Real GDP growth is projected at 2.4 percent in 2017, up from 1.7 percent in 2016, before easing to 2.1 percent in 2018
- Rebuild fiscal buffers and enhance the economy's capacity to grow and absorb shocks.
- For countries with stronger fiscal positions, available space should be used to lift growth potential and support structural reforms.
- Monetary policy expected to stay accommodative in most of Europe, given subdued inflation pressures.

- The European recovery is strengthening and broadening appreciably. Real GDP growth is projected at 2.4 percent in 2017, up from 1.7 percent in 2016, before easing to 2.1 percent in 2018
- Inflationary Pressures Are Beginning to Pick Up, but still low
  - Wage growth is low in sectors exposed to external competition, or manufacturing subject to automation and technological progress
  - Wage growth is higher in service sectors.
- The Credit Recovery Is Catching Up with the Real Recovery
- Current account surpluses remain noticeably larger than before the crisis in most countries, despite recent appreciation of the europ

Current Reforms

- Banking Union, including by establishing common deposit insurance and a common fiscal backstop.
- Capital Markets Union.
- Central fiscal capacity would help improve *the euro area's* ability to offset shocks, by reducing fiscal space constraints at the national level.