

# Euro 301

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Belgium 1957	Greece 1981	Cyprus 2004	Bulgaria 2007
France		Czech Rep	Romania
Germany	Portugal 1986	Estonia	
Italy	Spain	Hungary	
Luxembourg		Latvia	
Netherlands	Austria 1995	Lituania	
	Finland	Malta	
Denmark 1973	Sweden	Poland	
Ireland		Slovakia	
UK		Slovenia	



# Historical Background:

## The Bretton Woods system (45-73)

- Appeal to the Europeans
  - Fixed Exchange Rate System
  - Anti-inflationary - as anchor has low rates of inflation
- Disadvantages for the Europeans
  - Size of the bands: too large
  - N-1 problem: US dominated the system
  - Little cooperation between members

# Why are the Europeans keen on a fixed exchange rate regime?

- Historical experience between the 2 wars - Fear of instability - Hyperinflation - Competitive devaluations.
- They trade a lot together so a stable exchange rate is important.
- Their common agricultural policy dictates common prices for their agricultural produces - hard to maintain if exchange rates fluctuate.

So after the demise of B-W and some turbulent years in the 70ies, the Europeans introduced their own system: the ERM – subset of the EMS

This was a more structured system with substantial cooperation between members as they fix their bilateral exchange rates together.

# Improvements over B-W: the ERM

- Avoid asymmetry of B-W system -
  - all the currencies pegged to each other in a bilateral parity grid and
- Total fluctuation band is 4.5% (< 9% in late B-W)
- More generous lending facilities to help countries with payments difficulties
- Concerted intervention when the exchange rate of two countries hit the ceiling/floor of the band: the central bank of the strong currency must offer unlimited support to the weak currency.

- All the EC members at the time joined the ERM (except the UK). Germany had the lowest rate of inflation in the group so, in order to keep a fixed exchange rate with Germany, the other countries had to cap their inflation to the German level.

Two economic points:

- A fixed exchange rate regime can only work well if countries have the same rate of inflation.
- Corollary: so the members must carry out the same monetary policy. Then they lose their sovereignty on domestic monetary policy.



***Example showing that countries with different rates of inflation cannot remain in a fixed exchange rate arrangement.***

In 1980 fixed ER between F and G:  $1F = .5 DM$

Peugeot costs 2000F

VW costs DM1200

sells in G for DM1000

Between 1980 and 1985  $\pi^f = 50\%$  and  $\pi^g = 10\%$

So in 1985

Peugeot costs 3000F

VW costs DM1320

sells in G for DM1500

- It is clear that from 1980 to 1985 at the same ER the French car loses its competitiveness in Germany
- So as long as the ER remains fixed, France will run a chronic balance of trade deficit if inflation is higher in France than in Germany as people will want to buy German goods rather than French goods.
- As the demand for German goods increases, the demand for DM increases.
- As the demand for French goods drops, the demand for French Francs drops.
- This will result in pressures on the French Franc to depreciate - a depreciation, making the French Franc cheaper, would indeed restore French competitiveness on the German market.

## ***Impact of a trade deficit on a currency under fixed ER***

Pressure on the foreign currency to appreciate as its demand increases to pay for excess import over export so the domestic currency depreciates.

Not permitted with a fixed exchange rate regime.

- A fixed ER system can only work if the countries involved have the same inflation rates so they have to devote their monetary policy to harmonizing their inflation rates in order to keep their exchange rates fixed.
- **Moreover** monetary policy *cannot* be used for internal purpose like stimulating the economy if unemployment is high.
- Basically the role of the ERM was to discipline country into giving up profligate monetary policies and it was successful in doing so.

***Example showing what happens if France tries to use expansionary monetary policy to stimulate its economy, it won't work (assuming capital mobility)***

France increases  $M_s$  --- Interest rate  $i$  drops

- If  $i_{Fr} < i_{Ger}$  Capital flights from France to Germany

People sell French investments to buy German

So they sell Francs to buy DM

So there is pressure on Franc to depreciate

this is not permitted with fixed ER -- the central bank must counter this trend by supporting the Franc, losing its foreign reserves so  $M_s$  falls.

## ***Same story assuming capital controls***

The monetary expansion, by putting more money in the hand of the public, stimulate the demand for domestic as well as for import goods thus causing a trade deficit. This create pressures on the currency to depreciate as shown above.

***The exchange rate policy drove the monetary policy of the members and led to a de facto monetary harmonization.***

- How did that happen?
- Germany had the lowest rate of inflation in the group - countries with higher rate of inflation would eventually have to devalue, a shameful prospect: to avoid such an incidence, they had to ***shadow the German monetary policy.***
- By the end of the 80ies, the inflation rates had converged to the lower German level.

# Freeing capital movements

- The EMS had become an informal monetary union as the member followed the same monetary policy; there was no need for devaluation or revaluation - the fixed exchange rate was so stable that the currencies could be replaced by a single currency.
- But all that was done ***under tight capital controls*** - thus removing the likelihood of destabilizing speculation and the risk of currency crises.



- Since the goal of the European Union was to create a large integrated European market, ***capital controls would have to be dismantled:*** but this was risky.
- To avoid these risks, the idea was to replace the European Monetary System by a ***real*** Monetary Union with a ***common central bank***, a ***common monetary policy in the open***, and a ***common currency*** as fast as possible (before the dreaded currency crises could happen).

# Currency crises of the early 90ies

Capital controls were removed by the end of the 80ies, but the belief that a European Monetary Union could ever happen was put in question by the markets for a number of reasons:

- A slow down in the German economy due to the reunification of East and West Germany.
- A weak lira (can it stay in the system?)
- The entry of the British pound in the ERM at too strong an exchange rate
- The rejection or near rejection of the EMU treaty (Maastricht) by some of the partners.

The currency crises of 92 and 93 involved most of the currencies in the system.

- The introduction of a monetary union seemed doomed as many of the currencies could not uphold their parity and had to drop out of the ERM.
- To put an end to the speculation, the band was increased to 30% - a de facto flexible exchange rate, but, informally, the European central banks kept a smaller band.
- After all this turmoil, the Europeans were able to keep their timetable for introducing EMU by the end of the century - i.e. by 1-1-99.

# The European Monetary Union

- What does it entail?
  - ***A common central bank*** - the European System of Central Bank (ESCB) including the European Central Bank (ECB) in Frankfurt and the national central banks to carry the policy. The ECB has a president (Trichet) and an Executive Board.
  - ***A common monetary policy*** - decided by the Governing Council of the ECB ( the executive Board + the presidents of the central banks) at majority.
  - ***A common currency***: the Euro introduced as a virtual currency (bank balance) replacing the ECU in 1-1-1999 and as a real currency in 1-1-2002.

- The ECB must pursue a single goal:
  - **Price stability** - low inflation
  - No commitment about unemployment or economic stimulus is allowed
- The ECB must acquire **credibility** (just like the Bundesbank)
- The national central banks must be **independent** of their respective governments
- The ECB has no specific role concerning the exchange rate: **benign neglect**
- The ECB is **not** involved in banking supervision

# Credibility

When the EU members signed in 1992 the Treaty of Maastricht to go ahead with EMU, they set 5 criteria that a country should meet to join.

- The **3 monetary criteria** were obvious convergence criteria (inflation, interest rate and exchange rates)
- The other criteria were **2 fiscal criteria** to insure that no country would use **irresponsible** fiscal policy and become a drag on the system.
  - A country's budget deficit had to be < 3% of its GDP
  - A country's debt had to be < 60 of its GDP

- Once allowed in the system, the monetary criteria would become irrelevant, however there was a fear that some countries would reverse to their irresponsible fiscal policies.
- To avoid this possibility, a ***Stability and Growth Pact*** was agreed upon, stipulating that the fiscal criteria would remain operative after a country joined.

At this point, there are **22 countries using the €**,  
**but only 16 are members of EMU** following the  
monetary policy dictated by the ECB.

The *6 original EEC countries*: Belgium - France -  
Germany - Italy - Luxembourg - the Netherlands

6 countries that joined in the 70ies, 80ies and  
90ies: Ireland - Greece - Spain - Portugal -  
Finland - Austria

4 countries that joined after the creation of EMU -  
enlargement countries:

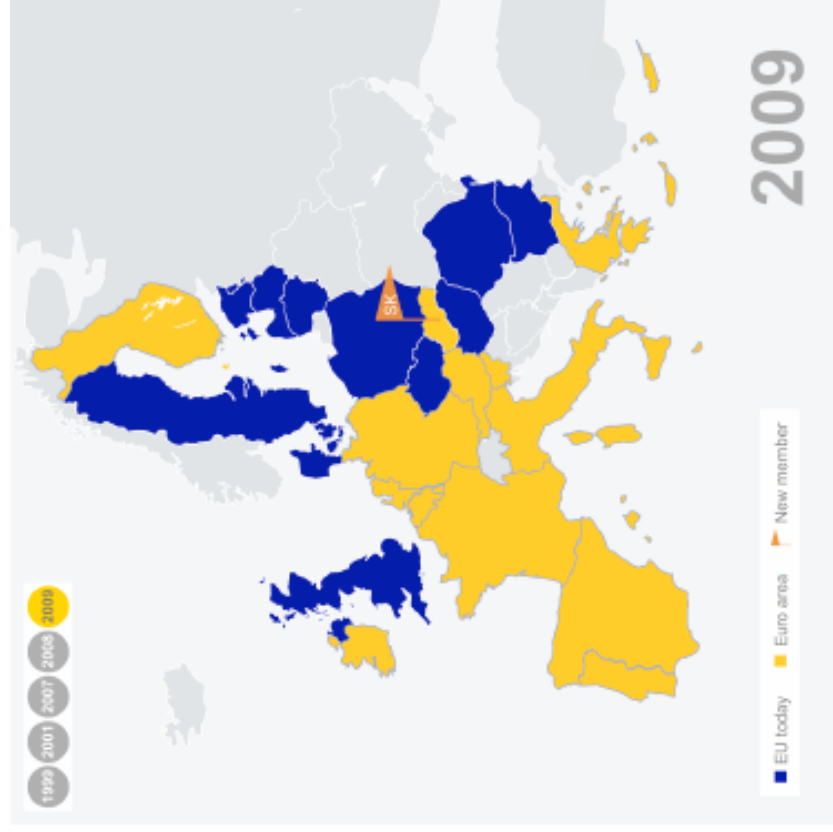
Slovenia - Malta - Cyprus – Slovakia

+ 1 in Jan 2011: Estonia





## Map of euro area 1999 – 2009



### 16 Member States of the European Union use the euro as their currency

- Belgium
- Spain
- Luxembourg
- Portugal
- Germany
- France
- Malta
- Slovenia
- Ireland
- Italy
- The Netherlands
- Slovakia
- Greece
- Cyprus
- Austria
- Finland

### Non-participants

Bulgaria, Czech Republic, Denmark, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Sweden and the United Kingdom are EU Member States but do not currently use the single European currency.

6 non-EMU countries use the euro as their currency

- 3 have agreements with the European Central Bank to mint their own euros:

Monaco - San Marino – the Vatican

- the other 3 just chose to use the Euro:

Andorra – Kosovo - Montenegro

# Obvious benefits of a monetary union

- Lower transaction costs (no need to exchange currency)
- No hedging costs (one currency - no conversion)
- Greater price and wage transparency - more efficient markets
- Greater capital market - more investment opportunities

- Last but not least: its size

## Importance of EMU

Represents 15% of the world economy (against 21% for the EU)

Carries out 1/5 of total world trade.

# Potential problems

- ***How can a single monetary policy fit the needs of 16 different economies?*** Some members might worry about an overheating economy while others are fighting unemployment.
- A body of research on that very topic was undertaken in the 60ies by Mundell and McKinnon; the ***theory of optimum currency areas*** underlining under what circumstances a monetary union may work.

# Optimum currency areas

- To be optimum, countries joining a currency area should have:
  - similar economic structures
  - high mobility of capital and labor
- To withstand the impact of:
  - asymmetric shocks
  - external shocks
  - different rates of growth

# Why?

- with a common monetary policy, a country facing a downturn, while the other members are doing well, cannot take advantage of a wage/price adjustment mechanism since a common price level is set by the central bank
- so how can unemployment in that country be alleviated?
  - By movements of labor out of the country towards more healthy economies
  - Through fiscal transfers from the central administration (fiscal federalism)

# Will that work with EMU?

- Although one of the basic rights stipulated by the original treaties establishing the European common market was free movement of labor, ***labor mobility is low*** because of various barriers: language barriers, social barriers etc. and highly regulated national labor markets.
- The ***overall budget of the European Union is rather small*** (around 1% of the total GDP of the members) and does not allow for substantial help for a specific country.

**NO!**



According to Mundell's criteria, EMU is ***not*** an optimal currency union.

### ***Will it become one?***

- There is no doubt that the large core countries are very integrated and their business cycles vary in phase.
- Greater competition will lead to more deregulated labor markets specially in certain global areas.
- Greater efforts at fiscal flexibility will lead to greater movements for business.
- Bilingualism is becoming more common.

# Causes for concern

- Greater economic integration could lead to ***more geographical specialization*** (economies of scale) and more exposure to asymmetric shocks.
- The Stability and Growth Pact (SGP) did not allow for the beneficial impact of ***countercyclical budget deficits*** (through the automatic stabilizers) - the SGP ill-advised consequences have eventually been tackled by averaging out the criteria over several years.

# Transmission of the monetary policy

- Since the economic structure of each member country is slightly different, the common monetary policy may impact each economy at a different speed and to a different extent.
- These issues are foremost to the core countries that have not joined originally, but are still considering it: the U.K., Sweden and Denmark.

- ***Differences in economic structure***

- If sectors involving large borrowing represent a larger share of GDP (e.g. construction, capital goods, consumers durables), the monetary policy will have a faster and stronger impact
- If international trade is a large sector (e.g. a very open economy), as monetary policy affects the exchange rate, these effects will be felt more keenly

(contractionary monetary policy - appreciation of € - deterioration of the balance of trade)

- ***Differences in financial structure***
  - The prevalent use of variable rather than fixed interest loans speeds up the transmission
  - Investment financing through banks versus raising funds through the capital market
- ***Differences in financial behavior***
  - Buying on credit rather than using cash from past savings
  - Relying on banks to cushion impact of rate changes

# ***EU countries not member of EMU***

## ***The core countries:***

The U.K. and Denmark were granted official opt-outs.  
Sweden does not have an opt-out and will join when ready.

## ***The enlargement countries:***

- 4 have already joined (Slovenia in 2007, Cyprus and Malta in 2008, Slovakia in 2009 – Estonia due to join in 2011)
- 3 countries participate in an exchange rate mechanism (ERM2) to prepare them for joining EMU (Estonia, Latvia, Lithuania) - Lithuania hoped to join earlier but did not meet the inflation criteria
  - Estonia and Lithuania use a currency board and Latvia a peg.
- 3 large countries not in ERM2
  - Poland is on a free float
  - The Czech Republic is on a managed float
  - Hungary is on a peg mimicking ERM2

# Latest developments: the financial crises

It started with the financial crises in the US that eventually, but not right away, spread to the EU. The upheavals affected euro as well as non-euro economies.

Overall EMU growth took a dip in 2009. However some members fared worse than others. Spain had a housing bubble – Ireland borrowed too much – Portugal had a weak economy – and Greece was a lost cause to start with.

- In January, Greece found itself in a position where it had to repay huge loans maturing in May 2010. Greece had been fiscally irresponsible for years, but now, with a weak world economy, nobody wanted to shoulder their debts anymore. Greece had fudged its numbers to join EMU in 2001 although it was not really meeting the Maastricht criteria. Now it flouted the SGP rules.



## All Eurobonds are not equal

When Greece, and some of the other EMU shaky economies, tried to sell Eurobonds to consolidate their debt, the rate shot up substantially above the low German rate to reflect the added risk of lending to these countries.

Had Greece kept the drachma with a flexible exchange rate system, they would have been able to devalue their currency to regain some international competitiveness. Or more likely, they would have had to face a serious currency crisis. The Euro sheltered them in a way but, in the process, the Greek crisis affected the rest of the EMU members.

Although Greece only represents 2.5 % of EMU's GDP, the fact that other EMU's countries also had problems resulted in a weakening of the Euro and the fear that the crisis would spread through contagion to other (larger) shaky members.

Against German strongly held principles, there was no choice but to rescue Greece – this is what the European did (with some help from the IMF).

Note that once a country is a member of the union, it is practically impossible to leave and this explains the hesitations of some potential members, mainly the UK, Sweden and the 3 large central European countries, Poland, the Czech Republic and Hungary.

For instance, if a euro economy is doing poorly: one could think that it should leave the Euro area, readopt its old currency and devalue – however since its foreign debt is denominated in Euro, such a move would be prohibitive.