

The Transition to a Monetary Union





The Maastricht Treaty

- The Maastricht Treaty was signed in 1991
- It is the blueprint for progress towards monetary unification in Europe
- It is based on two principles:
 - Gradualism: the transition towards monetary union in Europe is seen as a gradual one
 - Convergence criteria: entry into the union is made conditional on satisfying convergence criteria

'Convergence criteria'

For each candidate country:

- (1) Inflation rate \leq average of three lowest inflation rates in the group of candidate countries + 1.5%
- (2) Long-term interest rate \leq average observed in the three low-inflation countries + 2%
- (3) Joined the exchange rate mechanism of the EMS and did not experience a devaluation during the two years preceding the entrance into EMU



(4) Government budget deficit \leq 3% of its GDP

If this condition is not satisfied:

budget deficit should be declining continuously and substantially and come close to the 3% norm

or the deviation from the reference value (3%) 'should be exceptional and temporary and remain close to the reference value', art. 104c(a))



(5) Government debt \leq 60% of GDP

If this condition is not satisfied:

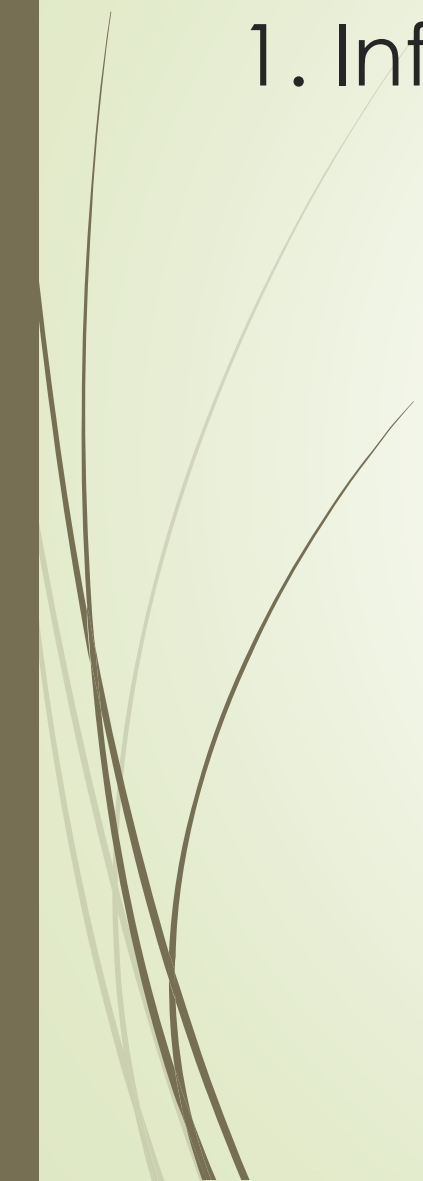
government debt should 'diminish sufficiently and approach the reference value (60%) at a satisfactory pace', art. 104c(b))

Why convergence requirements?

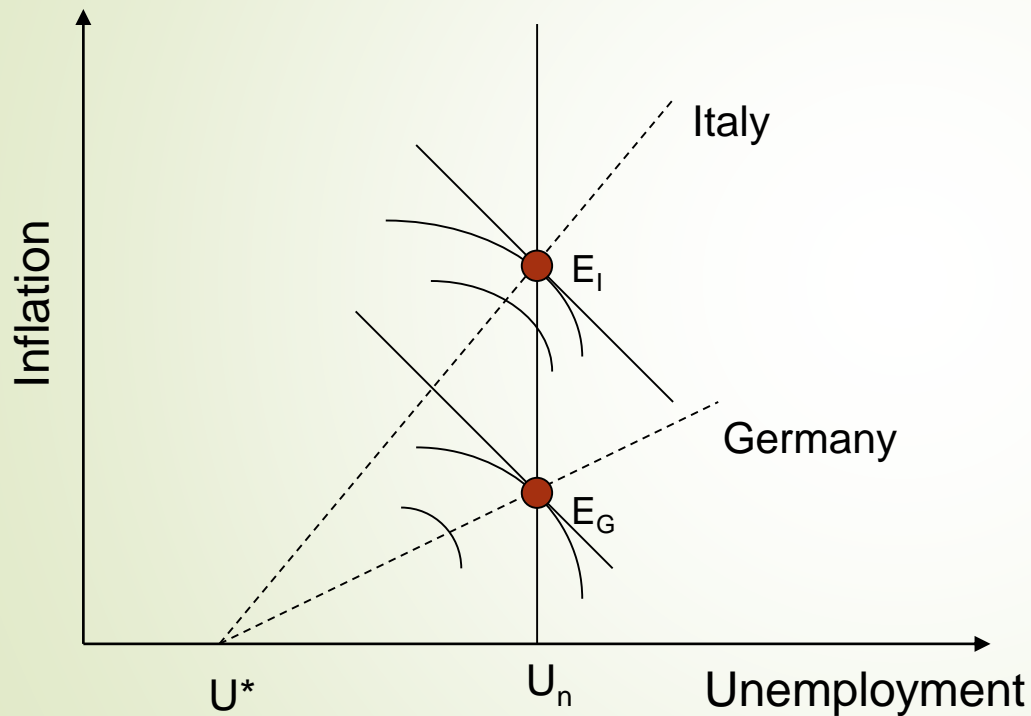
- ▶ The OCA theory stresses *micro*-economic conditions for a successful monetary union
 - ▶ Symmetry of shocks
 - ▶ Labour market flexibility
 - ▶ Labour mobility
- ▶ The Treaty stresses *macro*-economic convergence
 - ▶ Inflation
 - ▶ Interest rates
 - ▶ Budgetary policies



1. Inflation convergence

- Future monetary union could have an inflationary bias
 - The analysis is embedded in the Barro - Gordon model
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The inflation bias in a monetary union


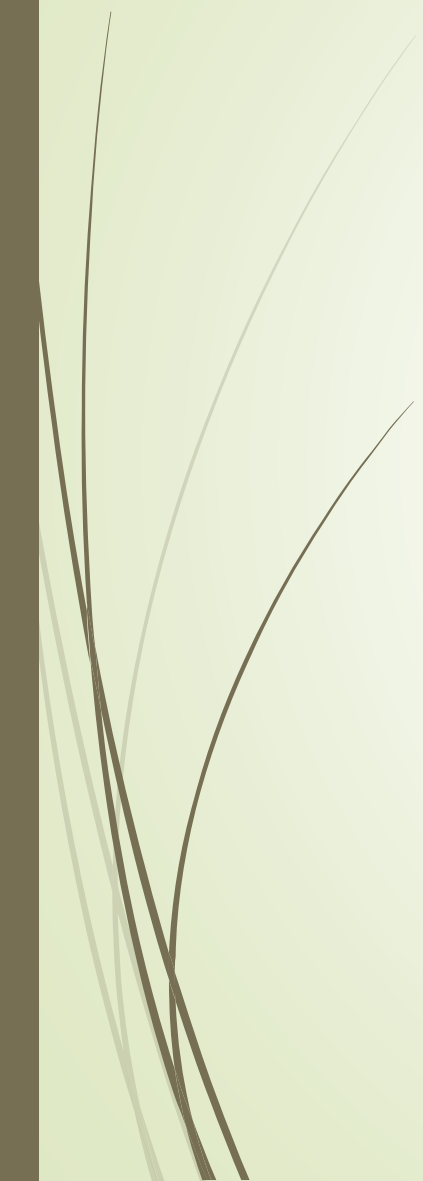


- Before EMU Germany has low inflation; Italy has high inflation
- Differences are due to different preferences concerning inflation and unemployment
- Once in the union, Germany and Italy will decide together
- Inflation will reflect average preferences and will be located between E_I and E_G
- Germany loses welfare; Italy gains welfare
- Germany wants evidence from Italy that it has the same strong preference for price stability
- Germany also wants ECB to be clone of Bundesbank



2. Budgetary convergence

- ▶ Deficit and debt criteria can be rationalized in a similar way
 - ▶ A country with a high debt-to-GDP ratio has an incentive to create surprise inflation
 - ▶ The low debt country stands to lose and will insist that the debt-to-GDP ratio of the highly indebted country be reduced prior to entry into the monetary union
 - ▶ The high debt country must also reduce its government budget deficit

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- In addition, countries with a large debt face a higher default risk
 - Once in the union, this will increase the pressure for a bailout in the event of a default crisis
 - *No-bailout* clause was incorporated into the Maastricht Treaty
 - But is this clause credible?

Numerical precision of budgetary requirements is difficult to rationalize

- ▶ 3% and 60% budgetary norms have been derived from formula determining budget deficit needed to stabilize government debt:

$$d = gb$$

b = (steady state) level at which the government debt is to be stabilized (in per cent of GDP)

g = growth rate of nominal GDP

d = government budget deficit (in per cent of GDP)

In order to stabilize the government debt at 60% of GDP the budget deficit must be brought to 3% of GDP if and only if the nominal growth rate of GDP is 5% ($0.03 = 0.05 \times 0.6$)

Arbitrary nature of the rule

- ▶ The rule is quite arbitrary on two counts
 - ▶ Why should the debt be stabilized at 60%?
 - ▶ The only reason was that at the time of Maastricht Treaty negotiation this was the average debt-to-GDP ratio in the European Union
 - ▶ The rule is conditioned on the future nominal growth rate of GDP
 - ▶ If the nominal growth of GDP increases above (declines below) 5%, the budget deficit that stabilizes the government debt at 60% increases above (declines below) 3%

3. Exchange rate convergence

(no-devaluation requirement)


- ▶ It prevents countries from manipulating their exchange rates
 - ▶ e.g. so as to have more favorable (depreciated) exchange rate in the union
- ▶ Note
 - ▶ According to the Treaty, countries should maintain their exchange rates within the 'normal' band of fluctuation (without changing that band) during the two years preceding their entry into the EMU
 - ▶ Since August 1993, the 'normal' band within the EMS was 2 x 15%
 - ▶ The exchange rate arrangements for the newcomers (Denmark, Sweden, UK and accession countries) are similar but not identical

4. Interest rate convergence

- ▶ Excessively large differences in the interest rates prior to entry could lead to large capital gains and losses at the moment of entry into EMU
- ▶ However, these gains and losses are likely to occur prior to entry because the market will automatically lead to a convergence of long term interest rates as soon as the political decision is made to allow entry of the candidate member country

Technical problems during the transition: how to fix the conversion rates

- ▶ Madrid Council of 1995 implied that on 1 January 1999 one ECU would be converted into one Euro
- ▶ At the same time the conversion rates of the national currencies into the Euro had to be equal to the market rates of these currencies against the ECU at the close of the market on 31 December 1998
- ▶ This created potential for self-fulfilling speculative movements of the exchange rates prior to 31 December 1998

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- ▶ The effect of such speculative movements could be to permanently fix the wrong values of the exchange rates
 - ▶ In order to avoid this, the fixed rates at which the currencies would be converted into each other at the start of EMU were announced in advance
 - ▶ If these announcements were credible, the market would smoothly drive the market rates towards the announced fixed conversion rates


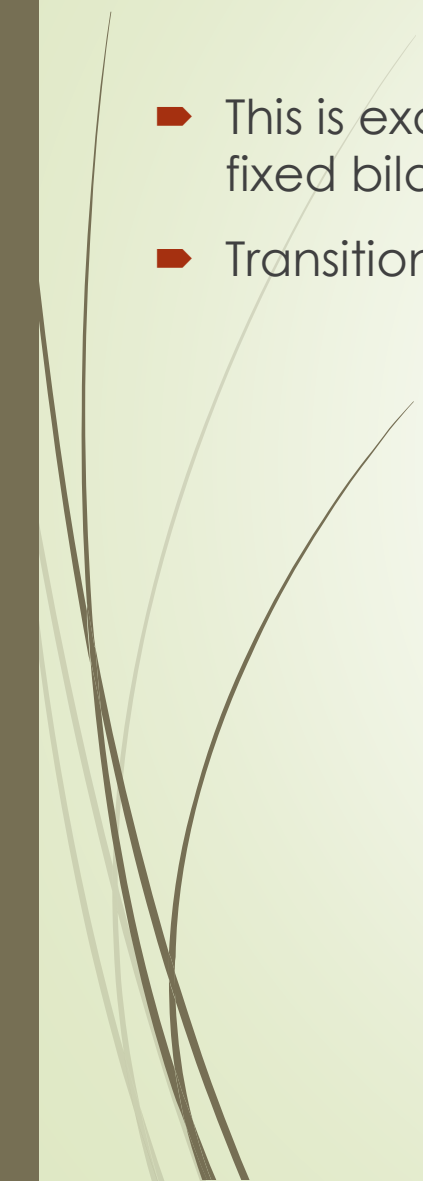

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- This is exactly what happened. The authorities announced the fixed bilateral conversion rates in May 1998
 - Transition was very smooth with minimal turbulence
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Table 7.1 Conversion rates of EMU currencies into the euro

Belgian franc	40.339900
Spanish peseta	166.386000
Irish punt	0.787564
Luxembourgish franc	40.339900
Austrian schilling	13.760300
Finnish marka	5.945730
German mark	1.955830
French franc	6.559570
Italian lire	1936.270000
Dutch guilder	2.203710
Portuguese escudo	200.482000

How to organize relations between the 'ins' and the 'outs'

- ▶ Main principles decided in ECOFIN meeting in June 1996:
 - ▶ A new exchange rate mechanism (the so-called ERM-II) has replaced the old Exchange Rate Mechanism (ERM) since 1 January 1999
 - ▶ Adherence to the mechanism is voluntary
 - ▶ Its operating procedures are determined in agreement between the ECB and the central banks of the 'outs'
 - ▶ ERM-II is based on central rates around which relatively wide margins of fluctuations are set. Countries may choose different margins

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- The anchor of the system is the Euro
 - When the exchange rates reach the limit of the fluctuation margin, intervention is obligatory
 - This obligation will be dropped if the interventions conflict with the objectives of price stability in the Eurozone or in the outside country



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- ▶ The ECB has the power to initiate a procedure aimed at changing the central rates
 - ▶ At this moment Denmark and some Central European countries have adhered to the ERM-II
 - ▶ The UK does not want to be constrained by an ERM-type of arrangement
 - ▶ The second EU-country which has not adhered to the ERM-II is Sweden


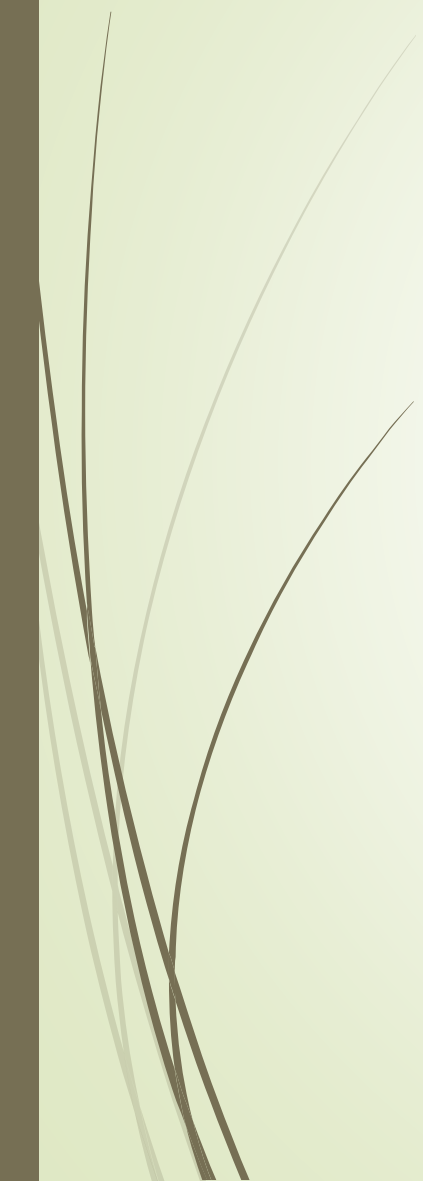
The new EU member countries and the convergence requirements

- ▶ When the new member states of the EU signed the accession Treaty they also committed themselves to enter the Eurozone some time in the future
- ▶ The exact moment at which this will happen depends on the fulfillment of the Maastricht convergence criteria
- ▶ These are the same criteria that the present Eurozone member countries had to satisfy (equal treatment)
- ▶ On 1 January 1 2007 Slovenia was the first of the new member countries to join

Balsa-Samuelson again

- ▶ Potential for conflict between the inflation criterion and the requirement for joining the ERM-II
- ▶ Central European countries experience high productivity growth in the tradable sector. This is part of their catch-up process with Western Europe

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- Thus, structurally higher inflation (measured by the consumption price index)
 - There is really nothing to worry about in this. When these countries are in the Eurozone they will show a higher inflation rate that is part of their catching up process and that should be considered to be an equilibrating process
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- ▶ During the transition process this could be a problem
 - ▶ Rate of inflation must be close to the Eurozone inflation until entry into the monetary union
 - ▶ Entry into the ERM II also reduces scope to use the exchange rate as an instrument to lower the inflationary dynamics coming from high productivity growth

Conclusion



- The transition towards EMU was based on two principles:
 - Gradualism
 - Macro-economic convergence
- These principles will continue to be important for the central European countries, the UK, Denmark and Sweden when these countries decide to join the Eurozone
- The technical problems associated with the start of EMU were solved remarkably well

Thank YOU for attention

End

