The European Monetary Union

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References:
http://en.wikipedia.org/wiki/Eurozone
http://www.ecb.europa.eu/
http://ec.europa.eu/economy_finance/index_en.htm

KEY CHARACTERISTICS OF THE EURO AREA*

EUROPEAN INTEGRATION

	€-17	EU-27		
Population (millions)	331**	501**	309**	128
GDP (PPP, € trillions)	9.0	12.5	11.2	3.3
GDP per capita (PPP, € thousands)	27.1	24.9	36.3	25.6
Share of world GDP (PPP, %)	15.1	21.3	20.4	6.0
Exports (goods and services, % of GDP)	19.7	13.4	11.1	13.3
Gross fixed capital formation (% of GDP)	19.6	19.1	15.7	21.2
Gross saving (% of GDP)	18.1***	17.7	10.7	22.1

*2009 and ** 2010 figures; *** Euro Area - 16
Sources: for euro area and EU: ECB, Eurostat, national data, IMF and ECB calculations; for the United States and Japan: national sources, IMF.

The Long Road to Maastricht Treaty and the Euro

Towards Maastricht		Between Maastricht and the single currency		The single currency	
1970	Werner Plan	1994	European Monetary Institute (precursor of ECB)	1999	Monetary union starts (11 members)
1979	EMS starts	1997	Stability and Growth Pact	2001	Greece joins
1989	Delors Committee	1998	Decision on membership	2002	Euro coins and notes introduced
1991	Maastricht Treaty signed	1998	Conversion rates set		2007Slovenia joins 2008 Cyprus and Malta
1993	Maastricht Treaty ratified	1998	Creation of ECB		2009 Slovakia 2011 Estonia

The Road to the Euro

- Customs Union and Common Agricultural Policy work better with a single currency
- EMS kept currencies tied together, but under German leadership, 1979-1989
- Multiple currencies of EMS pegged to D-mark inherently unstable, devaluations, speculation
- With fall of Berlin Wall in 1989, Germany needed permission to reunify, France wanted seat in Monetary Policy decision-making
- Compromise created the European Monetary Union under Maastricht Treaty

The Maastricht Treaty

- A firm commitment to launch the single currency by January 1999 at the latest.
- A list of five criteria for admission to the monetary union.
  - Inflation, interest rates, exchange rates, fiscal deficit, debt/GDP ratio
- A precise specification of central banking institutions, modelled on the Bundesbank, independent of political forces.

The Maastricht Convergence Criteria

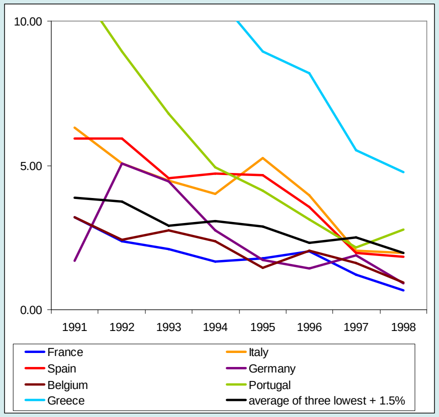
- Inflation:
  - not to exceed by more than 1.5 per cent the average of the three lowest rates among EU countries.
- Long-term interest rate:
  - not to exceed by more than 2 per cent the average interest rate in the three lowest inflation countries.
- ERM membership:
  - at least two years in ERM without being forced to devalue.

The Maastricht Convergence Criteria

- Budget deficit:
  - deficit less than 3 per cent of GDP.
- Public debt:
  - debt less than 60 per cent of GDP
- Criteria apply only for entry, not after!
- So Stability and Growth Pact agreed to cover post-entry behaviour
  - deficit and debt limits continue to apply, with sanctions for violations
  - But when Germany and France violated in 2003, no penalties applied.

Interpretation of the Convergence Criteria: Inflation

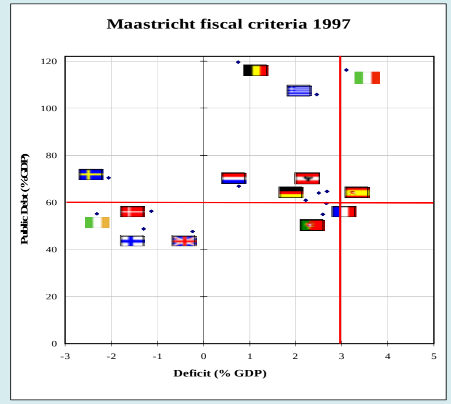
Straightforward fear of allowing in unrepentant inflation-prone countries.



Interpretation of the Budget Deficit and Debt Criteria

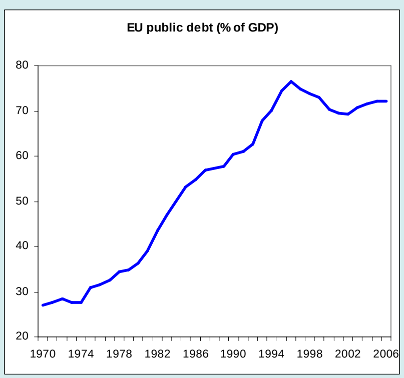
- Historically, all big inflation episodes born out of runaway public deficits and debts.
- Hence requirement that house is put in order before admission.
- How are the ceilings chosen?:
  - deficit: the German golden rule: 3%
  - debt: the 1991 EU average: 60%.

The Debt and Deficit Criteria in 1997



The Most Serious Concern: The Deficit Bias

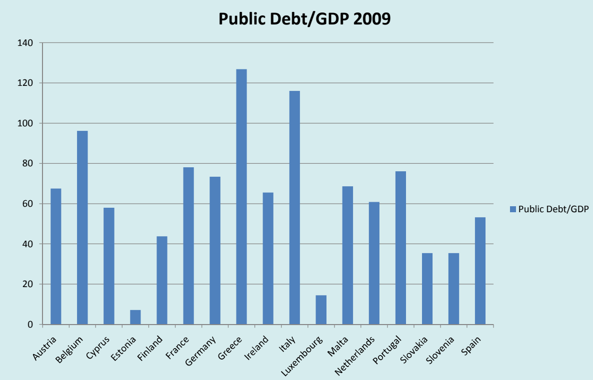
- The track record of EU countries is not good.



The Deficit Bias

The track record of EU countries is not good:

Public debts in 2009 (% of GDP)

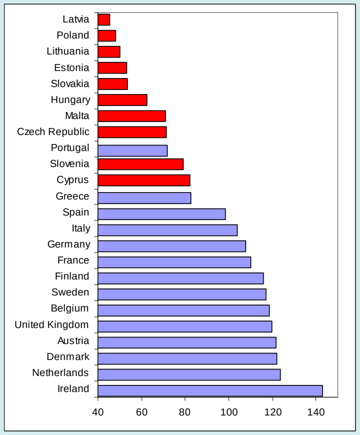


Criteria for Entry were Fudged

- Germany wanted rigid adherence to rules
- But after German Unification, East Germany required huge subsidies, led to large German deficits
- Thus rules were relaxed and Belgium, Italy, Spain, Portugal admitted even though debts exceeded Maastricht limits
- Even Greece was admitted a year later

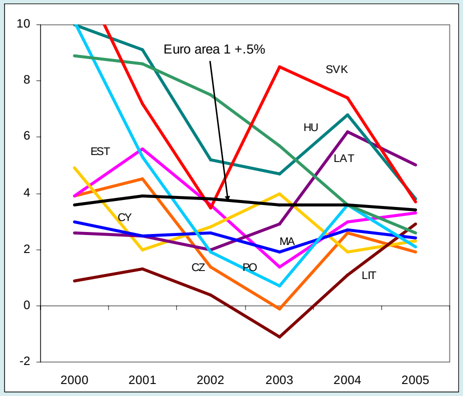
The next wave of candidates

Quite different development levels (GDP per capita as % of EU)



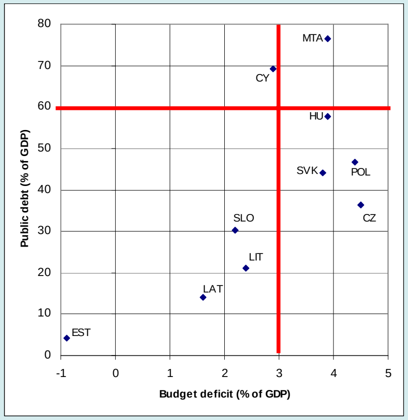
The next wave of candidates

The inflation criterion



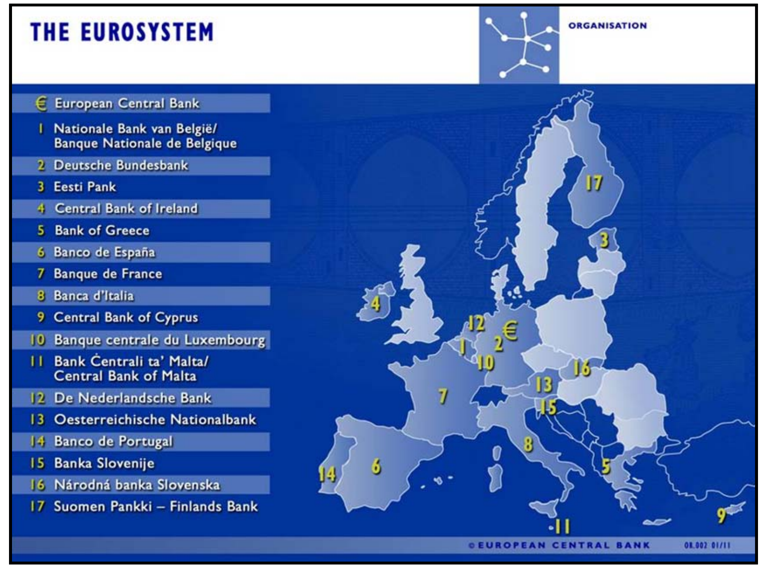
The next wave of candidates

The budget and debt criteria



Architecture of the monetary union

- N countries with N National Central Banks (NCBs) that continue operating but with no monetary policy function.
- A new central bank at the centre: the European Central Bank (ECB).
- The European System of Central Banks (ESCB): the ECB and all EU NCBs (N=27).
- The Eurosystem: the ECB and the NCBs of euro area member countries (N=17).



How Does the Eurosystem Operate?

- Objectives:
  - what is it trying to achieve?
- Instruments:
  - what are the means available?
- Strategy:
  - how is the system formulating its actions?

Objectives

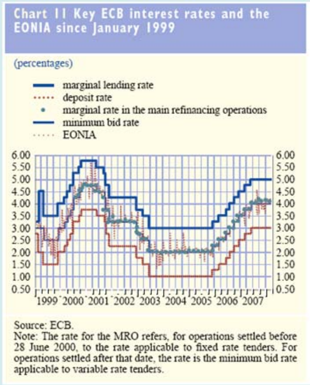
- The Maastricht Treaty's Art. 105.1:

'The primary objective is price stability. Given price stability, the objectives are a high level of employment and sustainable and non-inflationary growth.
  - fighting inflation is the absolute priority
  - supporting growth and employment comes next.
- Operationally, the ECB aims at maintaining inflation rates below, but close to, 2% over the medium term.

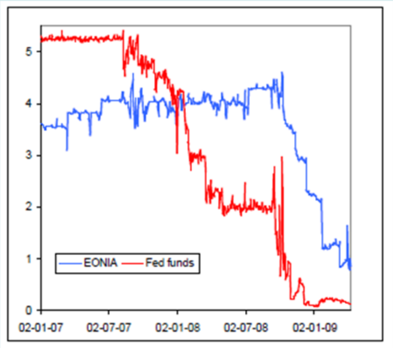
Instruments of Monetary Policy

- The channels of monetary policy:
  - longer run interest rates affect investment
  - credit availability affects lending
  - asset prices affect consumer behavior
  - exchange rate affects exports
- These are all beyond central bank control.
- Instead it controls the very short-term interest rate: European Over Night Index Average (EONIA).
- EONIA affects the channels through market expectations.

EONIA & Co.



Interest Rates in the Eurozone and the US (interbank rates)



Sources: ECB, Federal Reserve Bank of New York

Comparison With Other Strategies

- The US Fed:
  - legally required to achieve both price stability and a high level of employment
  - does not articulate an explicit strategy.
- Inflation-targeting central banks (Czech Republic, Poland, Sweden, UK, etc.):
  - announce a target (e.g. 2.5 per cent in the UK), a margin (e.g. ±1%) and a horizon (2–3 years)
  - compare inflation forecast and target, and act accordingly.

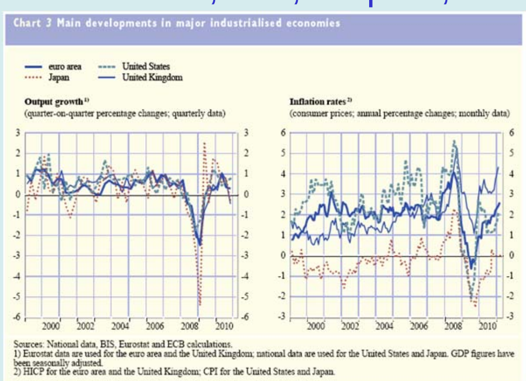
Does One Size Fit All?

- With a single monetary policy, individual national economic conditions cannot be responded to.
- When asymmetric shocks affect different countries, only fiscal responses can differ.
- Monetary policy cannot allow for differences among member countries.

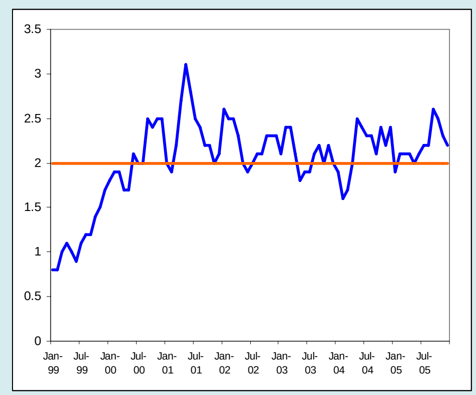
The Record So Far in a Difficult Period

- the 9/11/2001 attack on United States
- oil shock in 2000
- September 2002 stock market crash
- Afghanistan & Iraq Wars
- Global Financial Crisis 2008 & Recession
- Bailouts of European Banks

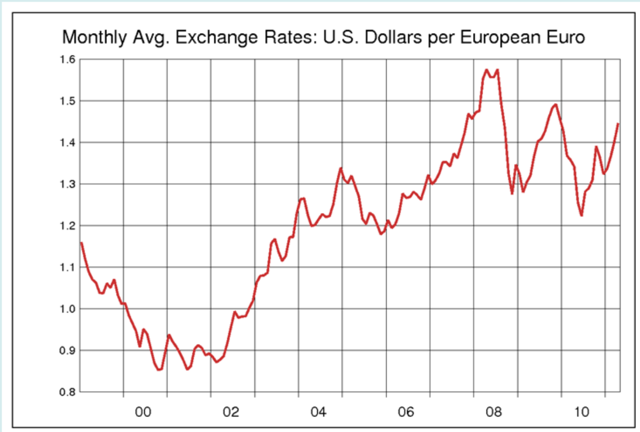
Euro Area, US, Japan, UK



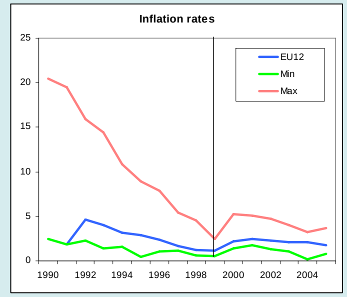
Inflation: Missing the Objective, a Little

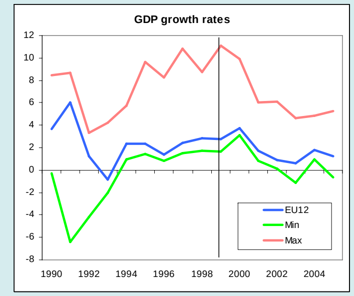


The Euro: Too Weak at First, Then Too Strong?

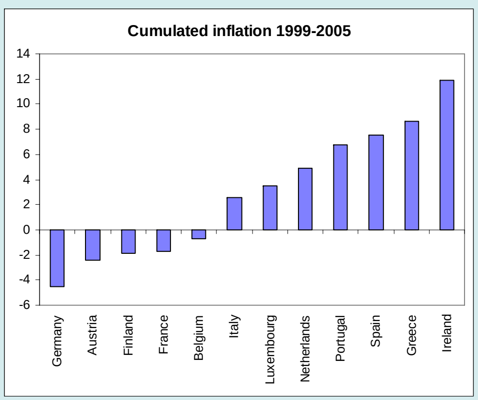


But No Seriously Asymmetric Shocks



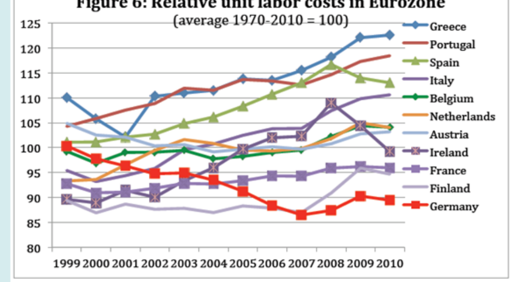


Although inflation has not fully converged



Relative labor costs and prices have diverged

Figure 6: Relative unit labor costs in Eurozone
(average 1970-2010 = 100)



Source: European Commission, Ameco

Divergent Inflation Rates

- Failure to prevent divergent inflation rates leads to differing real interest rates
- Cheap real interest rates in peripheral countries (Greece, Ireland, Portugal, Spain) led to real estate booms, busts
- Core countries' banks lend large sums to periphery
- Financial crisis leads peripheral countries to bail out their banks, go heavily into debt

The Greek Debt Crisis

- Greek debt/GDP ratio reached 113% and deficit/GDP ratio reached 12.7% in 2009.
- Foreign bondholders became doubtful that Greece could continue to roll over its increasing debt, forced interest rates higher.
- EU faced choice between Greek default and bailout with tough conditions.
- IMF and EU agreed to lend Greece up to $146 billion over three years.
- Greece to increase sales taxes, reduce public sector salaries, pensions, eliminate bonuses.

Greek Bailout by EMU & IMF

- May 2010: Greece adopts €110bn program supported by the EU and IMF
- Program aims to restore sustainable public finances and recover lost competitiveness
- Far-reaching structural reforms being adopted (e.g. landmark pension reform)
- Drastic cuts in public expenditure across all levels of government
- Program should stabilize debt ratio (but at a high level)
- Requires sharp cuts in wages, prices and costs, unpopular with strong unions
- Falling GDP raises debt ratio even if debt falls

Irish Crisis

- Reckless lending by banks to commercial and residential property developers based on low real interest rates
- Bad debt of banks causes problems for whole economy, government bailout
- Deep recession – 14% unemployment
- November 2010: Ireland adopts €85bn program supported by the EU and IMF
- Program aims to cut budget deficit and repair the damage caused by the banking crisis

Portugal’s Problems

- Slow growth and high inflation since 2000
- Balance of payments deficit financed by foreign borrowing
- Banks with bad debts were given govt. bailout
- Large foreign debts can’t be repaid
- EU and IMF program to lend € 78 billion with austerity program including cuts to govt. spending, wages, benefits, privatization, increased taxes