

Econ 2004: The Open Economy

Lecture 9: Economics of the Eurozone

Reading.

Core:

Carlin & Soskice (2015) Chapter 12 Sections 1-4

Optional: See Moodle page

Last lecture

Model-building:

1. Sector financial balances
2. A 2-bloc model of the world economy - extending the AD-BT-ERU model
3. Global imbalances

Policy questions

- Are national / global imbalances necessarily a problem for policy-makers?

This lecture

Model-building:

1. Choice of exchange rate regime – costs and benefits of a flexible nominal exchange rate
2. How was policy-making organized in the Eurozone? How did the Eurozone perform?
3. Stabilization policy for a member of the Eurozone

Policy questions

- Policy response to common shock – the CB's central bank
- Policy response to asymmetric shocks – is a national response necessary?
- How can imbalances arise in a common currency area (CCA)?

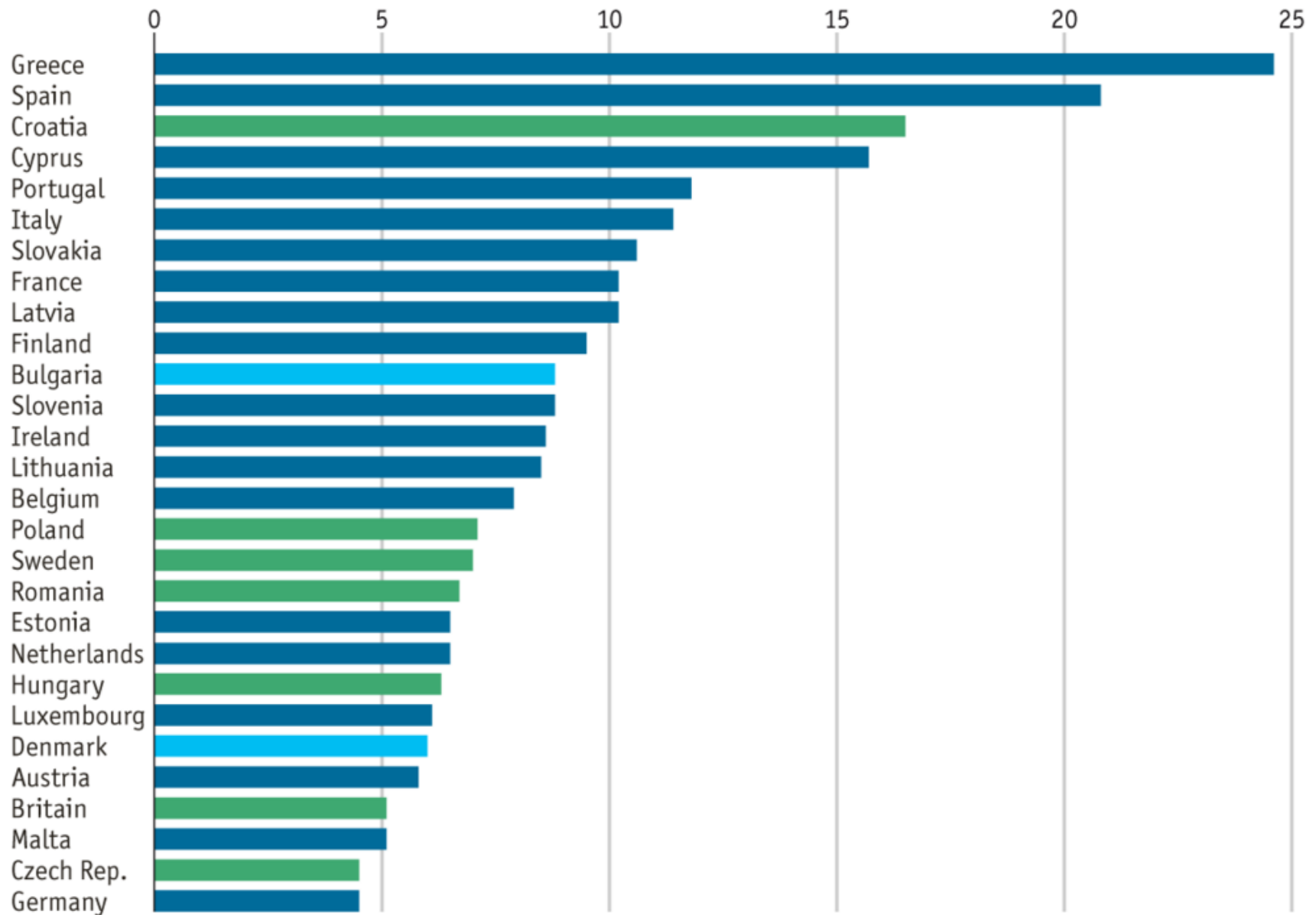
Unemployment rate

January 2016 or latest, %

■ Euro area

■ Currency pegged to euro

■ Floating currency



The choice of exchange rate regime

Advanced economies club 'OECD' (34 countries):

___ floating exchange rates; ___ 'irrevocably' fixed via Eurozone membership; ___ pegged to the euro

→ Think of the decision of whether to join a CCA

Microeconomic issues:

Benefits

- Single currency →
- Resource savings
- Increased competition →
- Increased liquidity in financial markets →

The economic case for & against joining a CCA

Macroeconomic issues:

- Optimal Currency Area (OCA) theory (Mundell) → **cost** of losing exchange rate instrument

- **Benefit**

→ Three issues to focus on using models we have already developed

How does choice of exchange rate regime affect

1. economy's ability to respond to shocks?
 - in a CCA, what could substitute for loss of i and e (i.e. the ability to choose y_1 (via r_0 different from r^* and q_0) to respond to a shock (3-equation model)?
2. the credibility of the medium-run inflation rate?
3. the nature of shocks?

The economic case for & against joining a CCA

Q1. Exchange rate regime & response to shocks

Common vs. country specific shocks:

- Common shocks
 - Which model to use?
- Country-specific shocks
 - What happens if country has no monetary policy?
 - Which model to use?

Q1 (cont.) What difference does the exchange rate regime make?

A country-specific shock – an external trade shock

Suppose home country is subject to an external demand shock

- e.g. a change in tastes so that at given Q , its exports fall (i.e. fall in σ , its share of world exports) ... e.g. sudden fear that Japanese cars are unreliable or German cars have emissions problems

How to analyze this, and what does it tell us about choice of exchange rate regime?

1. Set up the problem
2. Look at solution under flexible exchange rates
3. Compare with Eurozone member (i.e. fixed exchange rates (no monetary policy))

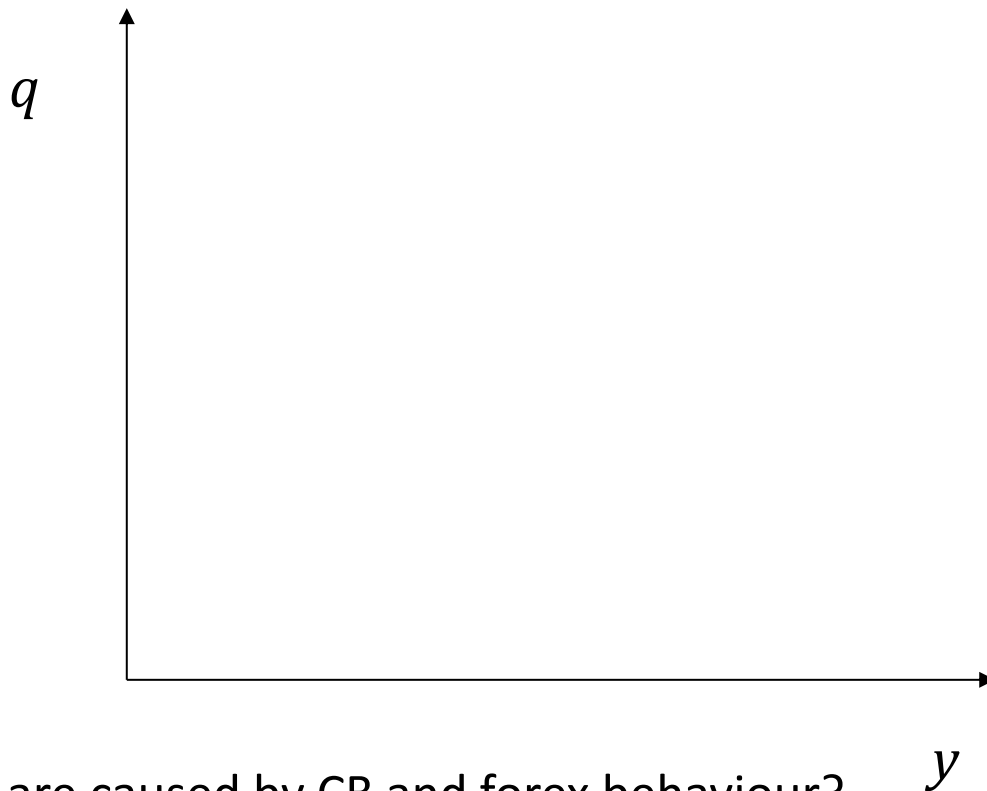
Q1 (cont.)

Modelling an external trade shock (familiar)

- Fall in σ , country-specific
 - Both AD and BT shift left
 - AD' and BT' intersect vertically above y_0 – why?
-
- What is the new medium-run equilibrium? Flexible e; fixed e; vertical ERU; downward-sloping ERU?

Q1 (cont.) **Modelling an external trade shock under different exchange rate regimes (new for fixed rates)**

Flexible exchange rates:



Ask:

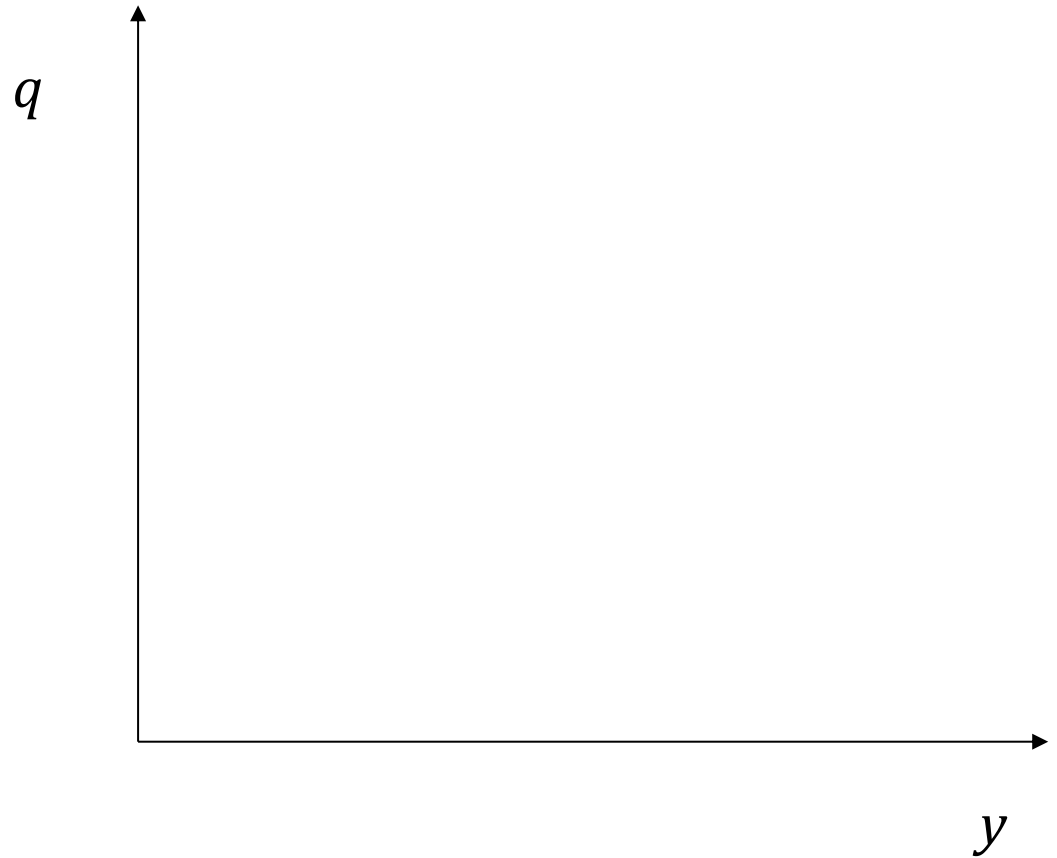
What changes in which variables are caused by CB and forex behaviour?

Focus on the role of jumps in e (and therefore in q)

Q1 (cont.) **The fixed exchange rate (or member of a CCA) case**

NB The MRE at Z is _____ of the exchange rate regime if we assume _____.

3 key equations:



Q1 (cont.) **Modelling an external trade shock**

Fixed exchange rates
(or member of a CCA):

What is the cost of losing access to Δe ?

What could potentially offset this?

1.

2.

3.

Q1 (cont.) **Summary of costs and benefits**

| Benefits of joining CCA | Costs of joining CCA |
|-------------------------|----------------------|
| Microeconomic | Macroeconomic |
| | |
| Macroeconomic | |
| | |

Why did Germany join Eurozone?

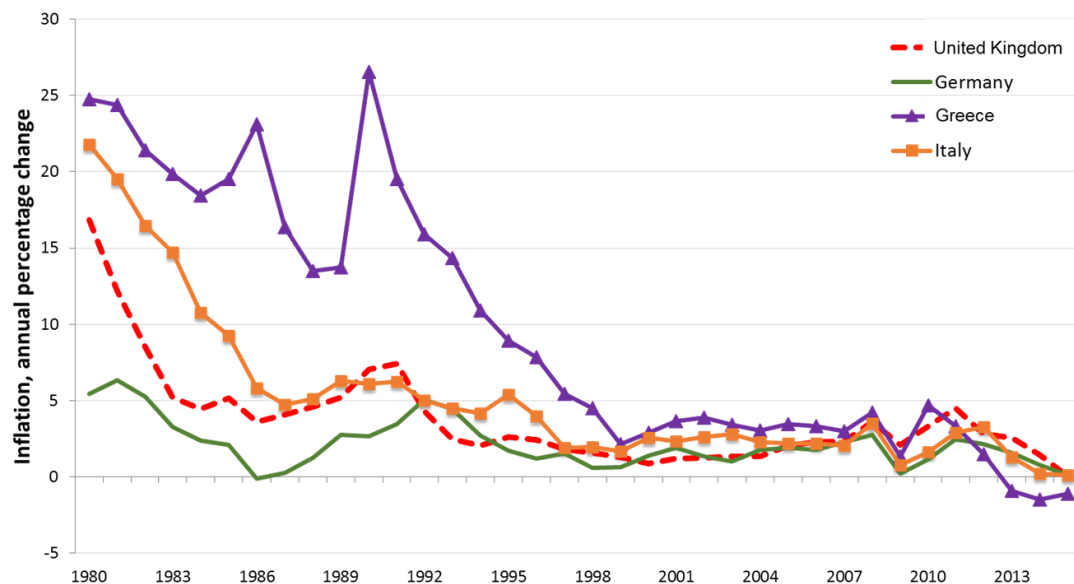
Why did Italy, Spain, Greece join?

Q2. Exchange rate regime choice & credibility of the medium-run inflation rate

What determines the MRE inflation rate?

Review slides 21-23 of Lecture 2

Different choices made by Italy and the UK



Q3. Exchange rate regime & nature of shocks

We have done this before ...

Review slides from Lecture 4

We know:

- With sluggish adjustment of wages & prices, nominal e volatility *is* RER volatility; RER volatility can have real economic costs
- Real exchange rate volatility
 - Overshooting in adjustment to shocks
 - Shocks emanating from the forex market

Put theory into practice: How was policy-making organized in the Eurozone? How did the Eurozone perform?

The Maastricht policy assignment:

Monetary policy

Fiscal policy

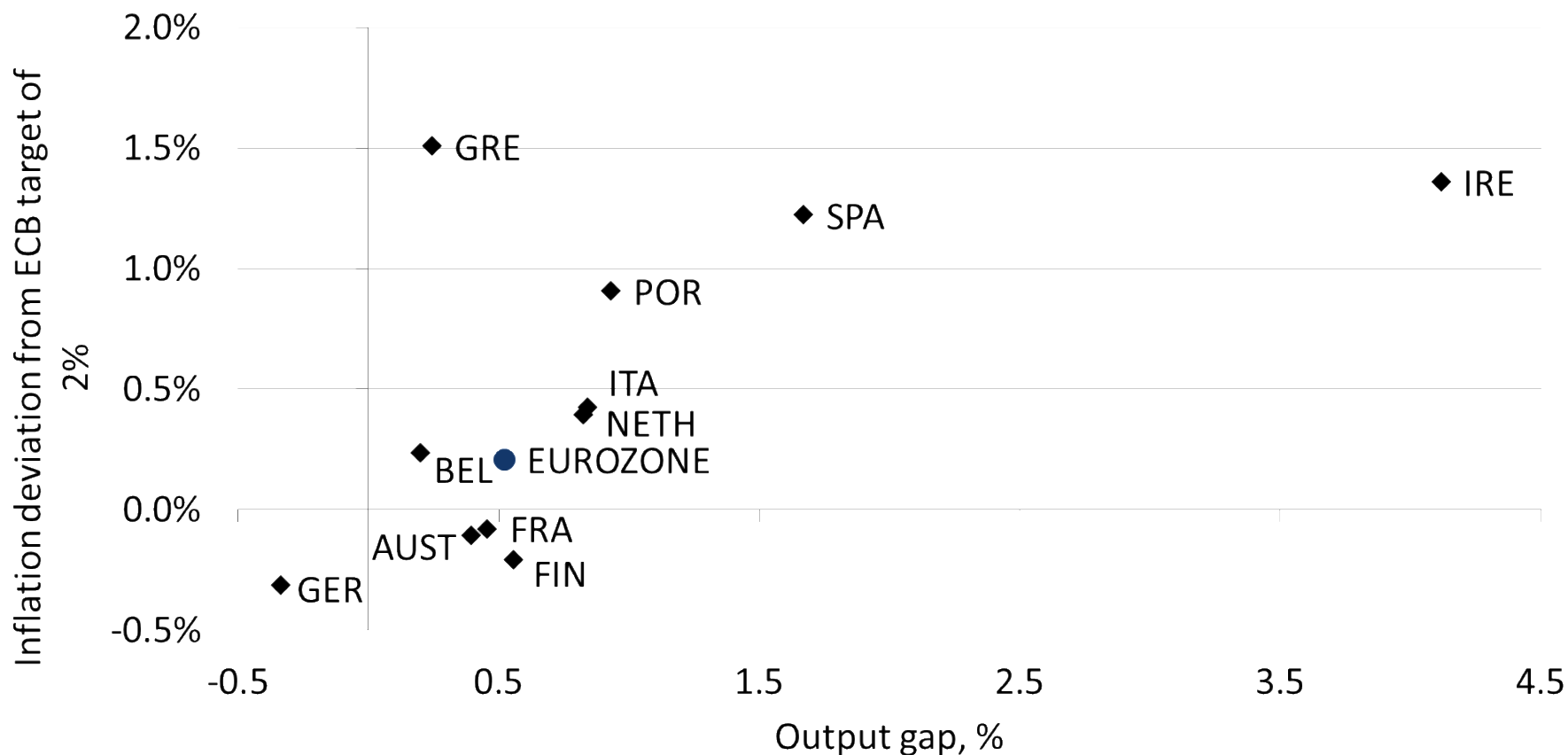
Supply-side policy

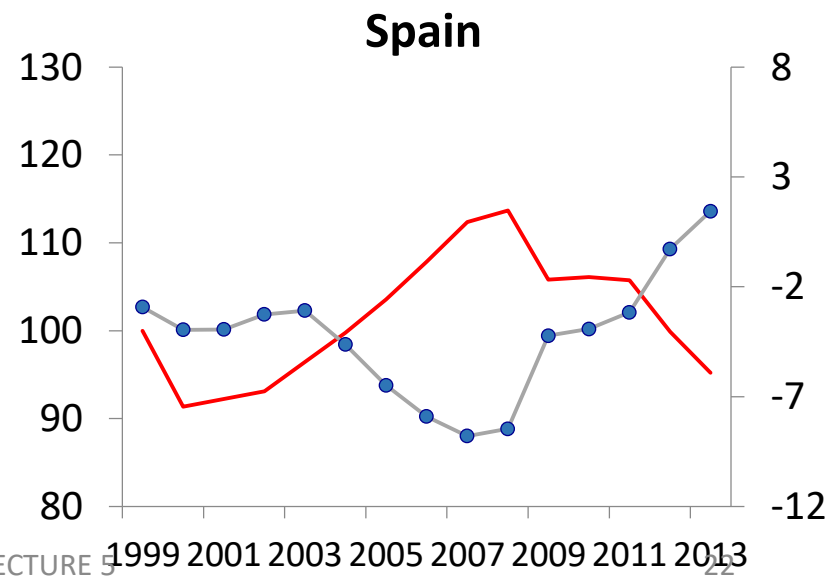
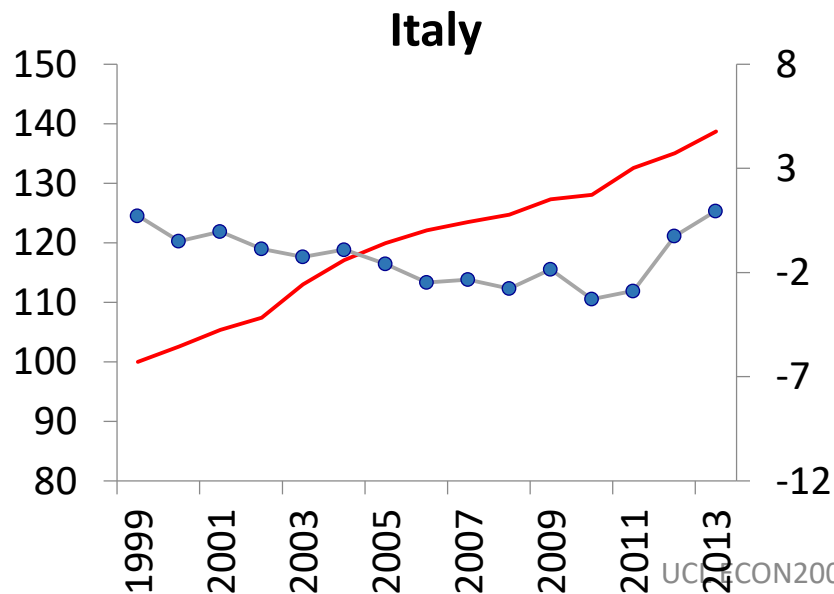
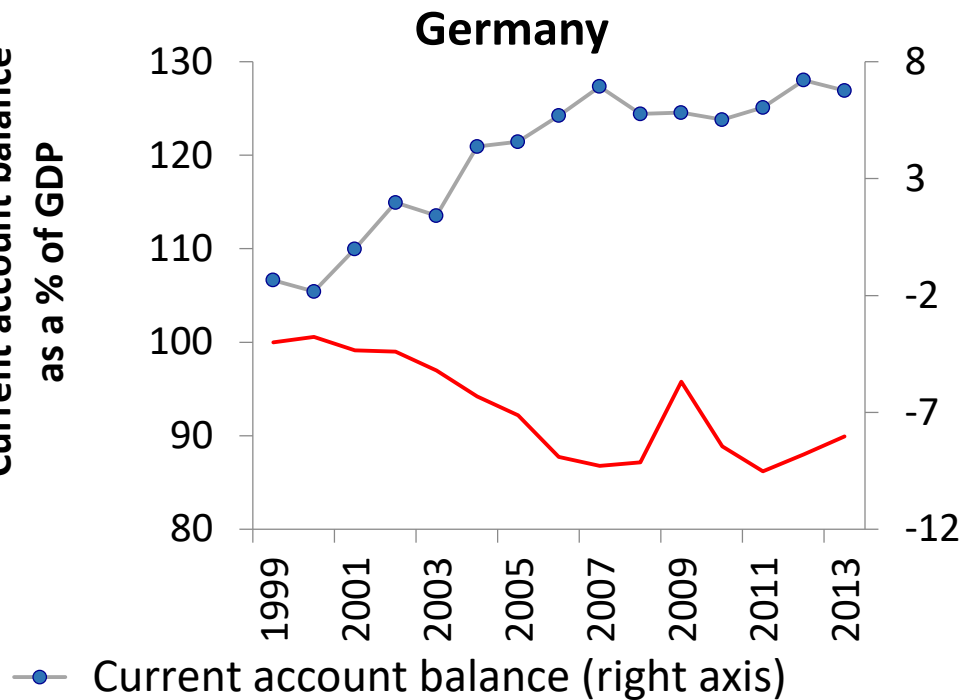
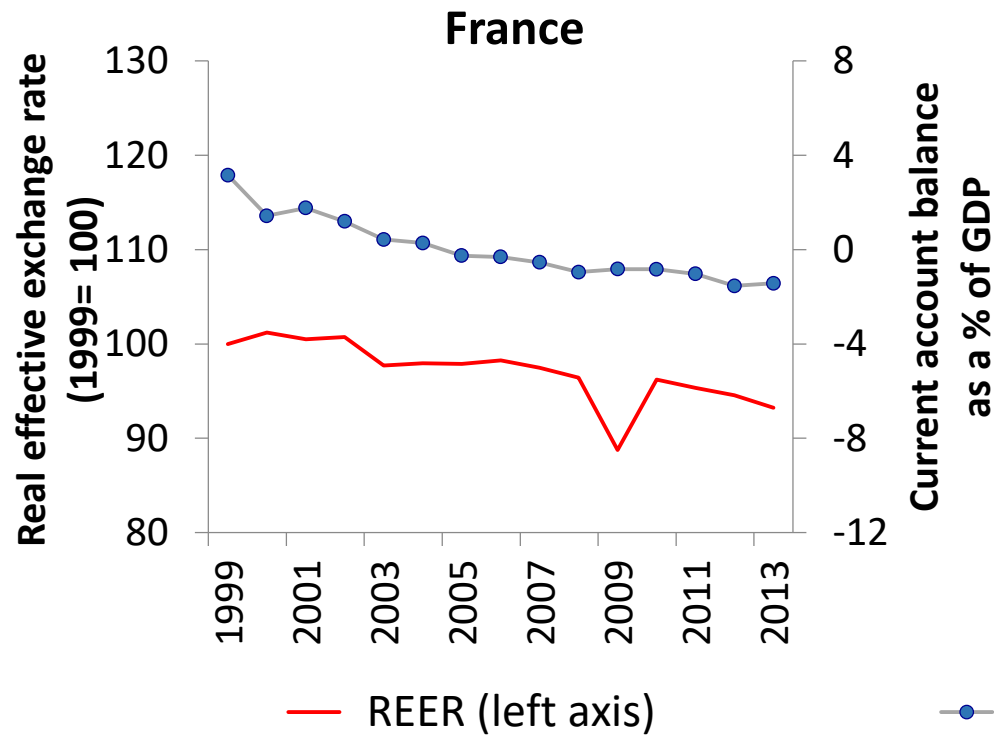
Key features of Eurozone performance

- Eurozone as a whole
- Member countries
- Indicators of imbalance
 - RER
 - Current account balances
 - Public sector debt
 - Private sector debt
- Monetary policy
- Fiscal policy

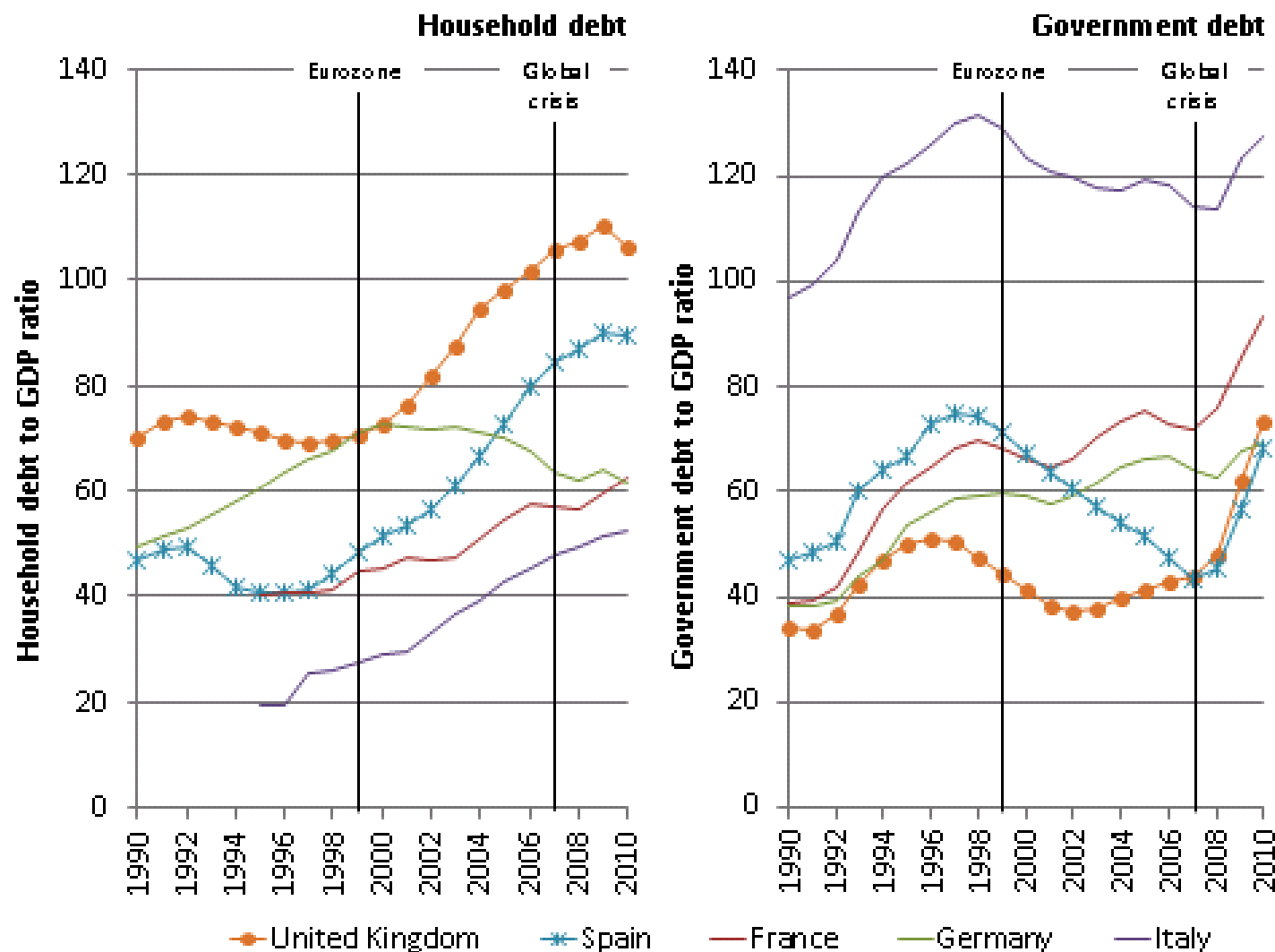
Eurozone and member countries 1999-2008: how close to

$$\pi = \pi^T \text{ and } y = y_e?$$





Eurozone members: household and government debt before the crisis



2. In the Eurozone, how does stabilization (policy) work?

2 levels

- Supra-national level. Monetary policy is carried out by CCA CB (in Eurozone by ECB) →
 - use 3-equation open economy model (Fig. 12.5)
 - in response to *CCA-wide shocks*, CB sets r to achieve π^T
 - National level. What about *country-specific shocks*?
 - A. adjustment *without* policy intervention via real exchange rate and real interest rate channels
- OR
- B. use of *fiscal policy*. In theory (but not in EZ), MR becomes PR since policy-maker's desired output gap is implemented via fiscal policy

Stabilization of country-specific shocks

Step 1. What happens if there is no active policy intervention?

Example: inflation shock

Two channels:

Higher home inflation (relative to CCA inflation) →

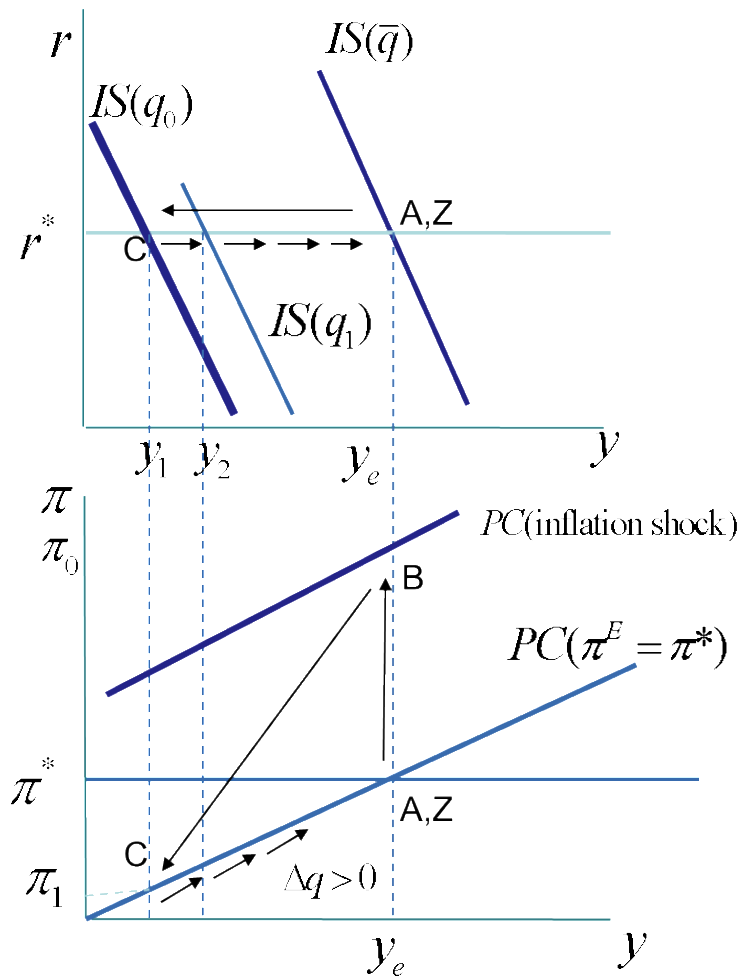
A. The Real Exchange Rate channel (RER)

B. The Real Interest Rate channel (RIR)

The key is how

Step 1. No active policy intervention:

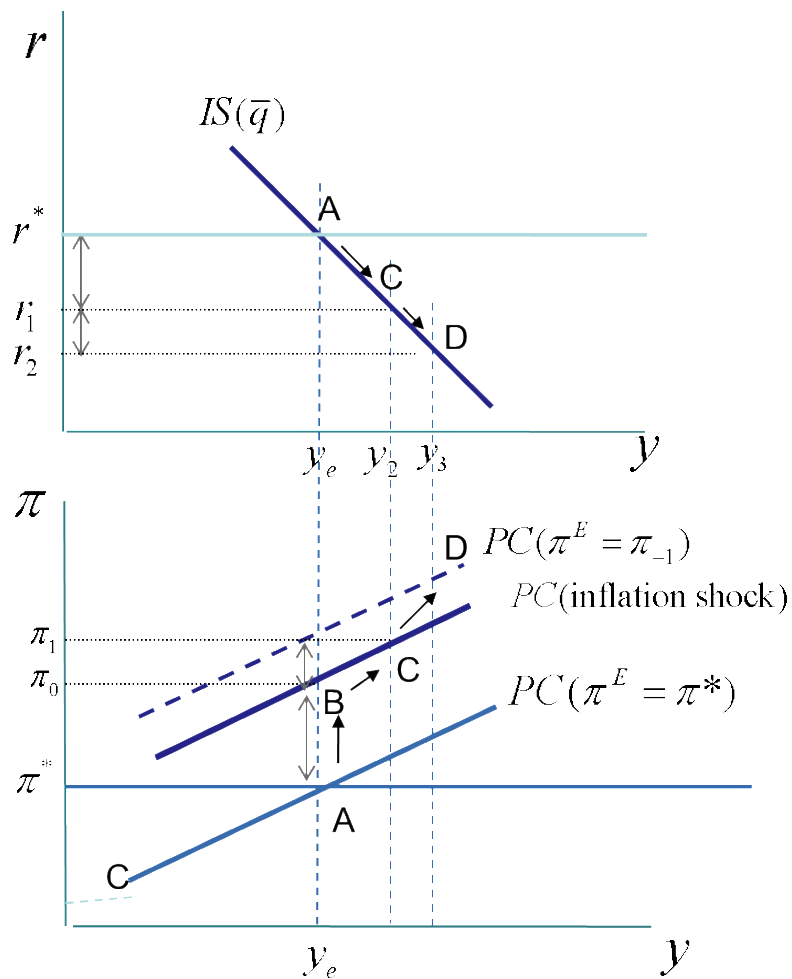
A. Real exchange rate channel



a. Real exchange rate channel: stabilizing

Step 1. No active policy intervention:

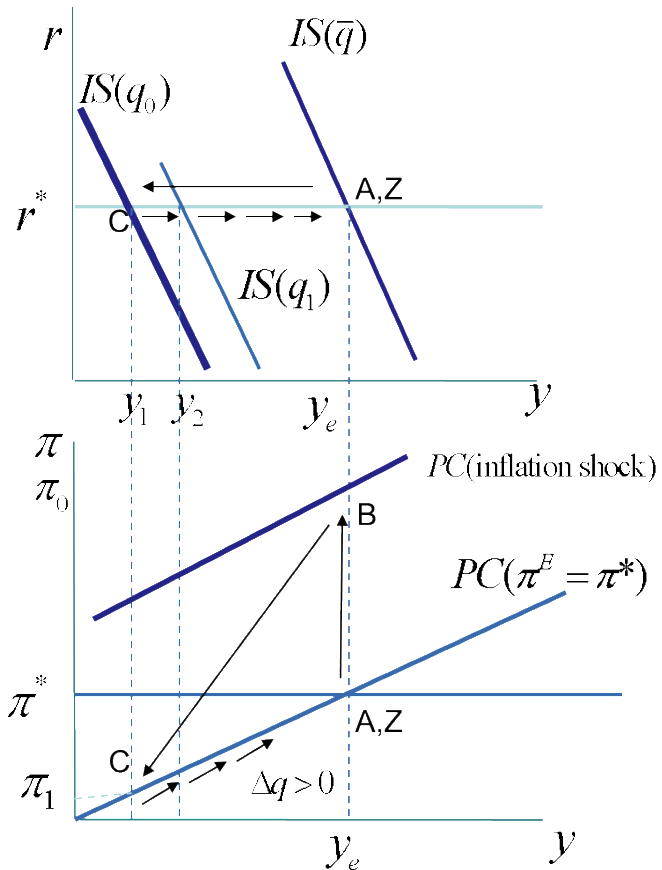
B. Real interest rate channel



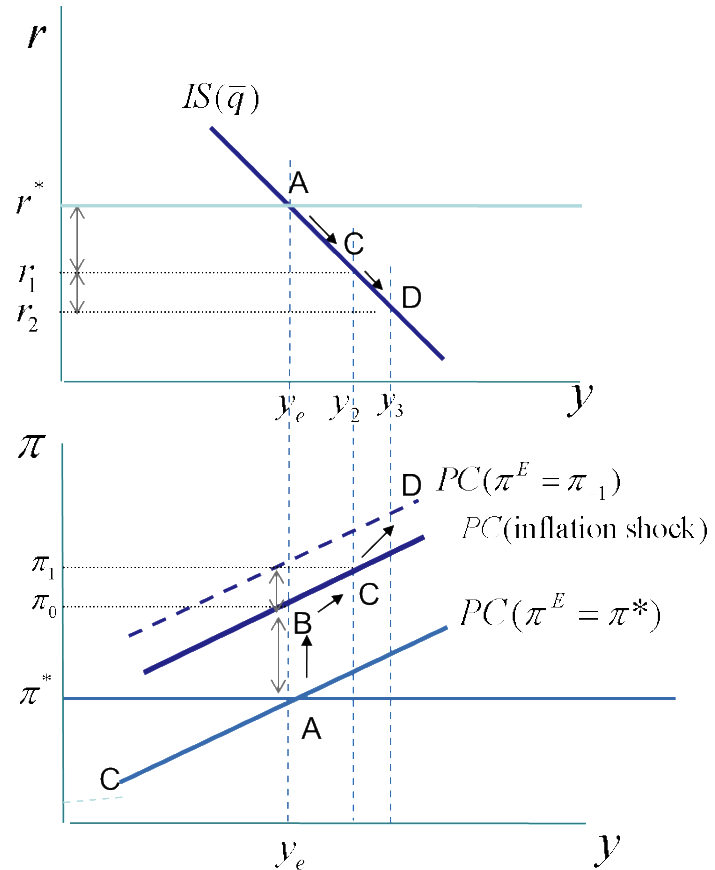
b. Real interest rate channel: destabilizing

Step 1. No active policy intervention:

Example: inflation shock – Summary



a. Real exchange rate channel: stabilizing



b. Real interest rate channel: destabilizing

Step 2. Using national fiscal policy to stabilize – mimicking the use MP under flexible exchange rates

Example: inflation shock

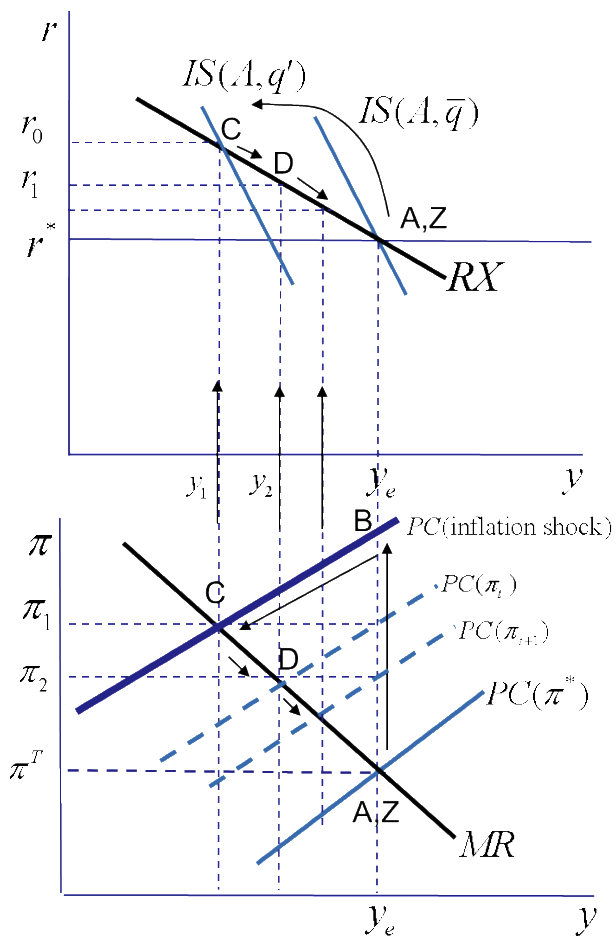
Why use FP?

Instead of MP, modify 3-equation model to use FP with the same loss function:

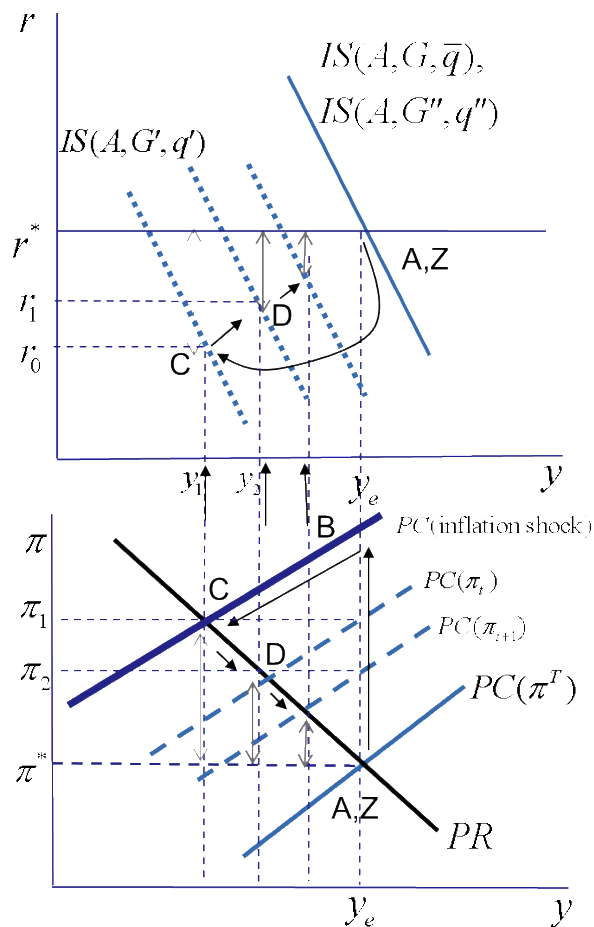
Step 2. Using national fiscal policy to stabilize: comparison with using MP to stabilize under flex. exchange rates (adjustment)

Example: inflation shock

Flexible exchange rate economy

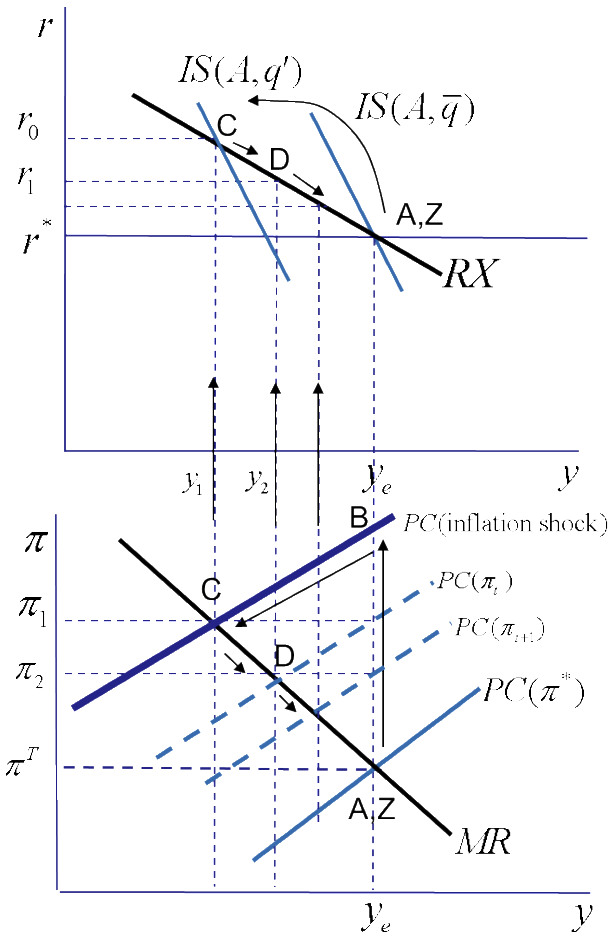


Member of a CCA

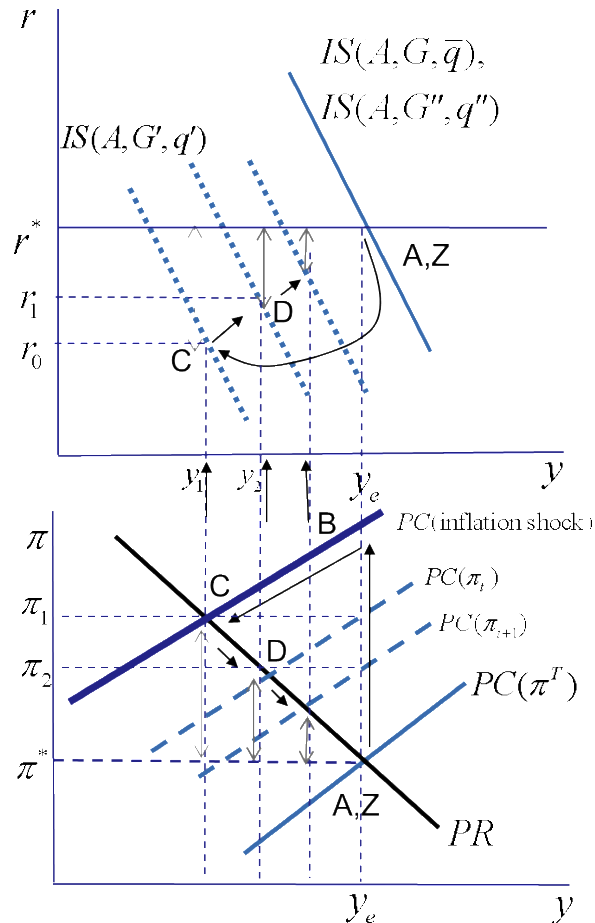


Step 2. Using national fiscal policy to stabilize: comparison with using MP to stabilize under flex. exchange rates (comparing new MREs)

Flexible exchange rate economy



Member of a CCA



Stabilization of country-specific shocks in a CCA via fiscal policy

| When is it necessary? | Why is it difficult? |
|-----------------------|----------------------|
| | |

Application to the Eurozone's first decade

1. Success of the ECB
2. Divergence in member countries ... remember different motives for joining

Before the global financial crisis (2008):

Common characteristic of the crisis countries: current account deficit

2 types:

Type 1. Private sector indebtedness

Type 2. Excessive government deficits before the crisis

After the global financial crisis

- Common characteristics of the crisis countries:
- Current account deficit
- High level of government debt
- Attacked by the 'bond vigilantes'
- Doubts about solvency ... can government honour its bonds?

Indicators 1999-2007: countries *ranked by* interest rate spread over German Bund Q2 2011

| | Current account (% GDP) | Real exchange rate (manuf.) | Real interest rate | General government balance (% GDP) |
|-------------|-------------------------------|--------------------------------|-----------------------|---|
| Greece | -8.1 | 129.9 | 0.9 | -5.8 |
| Ireland | -1.6 | 97.0 | 0.3 | 1.6 |
| Portugal | -9.2 | 107.6 | 1.2 | -3.6 |
| Spain | -5.5 | 123.0 | 0.2 | 0.1 |
| Italy | -1.1 | 123.6 | 2.0 | -2.8 |
| Belgium | 3.6 | 104.0 | 2.4 | -0.5 |
| Austria | 1.3 | 92.6 | 2.9 | -1.8 |
| France | 0.8 | 98.7 | 2.5 | -2.6 |
| Finland | 6.2 | 79.1 | 3.1 | 3.7 |
| Netherlands | 5.3 | 101.1 | 1.6 | -0.5 |
| Germany | 2.7 | 85.1 | 3.5 | -2.1 |

RER: 1999=100; Increase is appreciation. European Commission Economic and Financial Affairs Economic Databases and Indicators Price and Cost Competitiveness
 RIR: 10 year government bond yields and spread over German bonds deflated by GDP deflator
 Source: OECD

Next week

Crises ... and their aftermath

Self-test questions

Chapter 12 Check-list questions 1-3; 5-8