Paul De Grauwe

# Economics of Monetary Union 12e

## The Benefits of a Common Currency

# Introduction

- The costs of EMU have mostly to do with macroeconomic management
- The benefits are mostly microeconomic in nature,
  - i.e. they arise from efficiency gains of a monetary union

# Sources of benefits

- Less transaction costs
- Price transparency
- Less uncertainty
- Benefits of an international currency
- Does monetary union lead to more economic growth?

# Less transactions cost

- Elimination of foreign exchange markets within union eliminates cost of exchanging one currency into another
- Cost reductions amount to 0.25 to 0.5% of GDP (according to European Commission)
- Target payment system
  - Cross border payments are settled through Target payment system (TARGET II)
  - Imbalances arise when one country has a net payment deficits (surplus) vis-à-vis other member countries
  - These imbalances have been high

# Price transparency

- One common unit of account facilitates price comparisons
- Consumers “shop around” more
- Competition increases
- Prices decline and consumers gain

# Does the Euro increase price transparency in a significant way?

- Large price differentials continue to exist
- These have to do with
  - transactions costs at the retail level
  - and product differentiation
- See next figure

# Large price differentials of identical products in eurozone (2011)

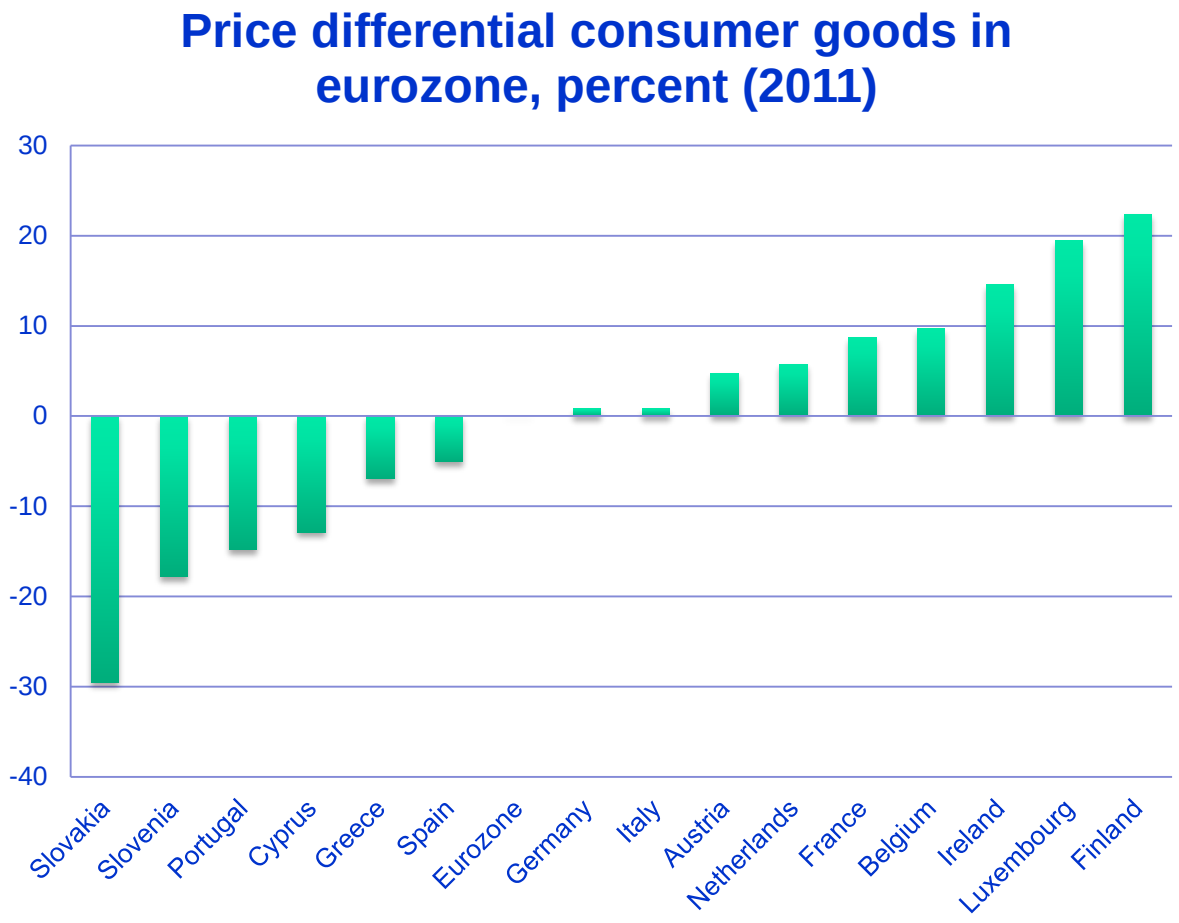


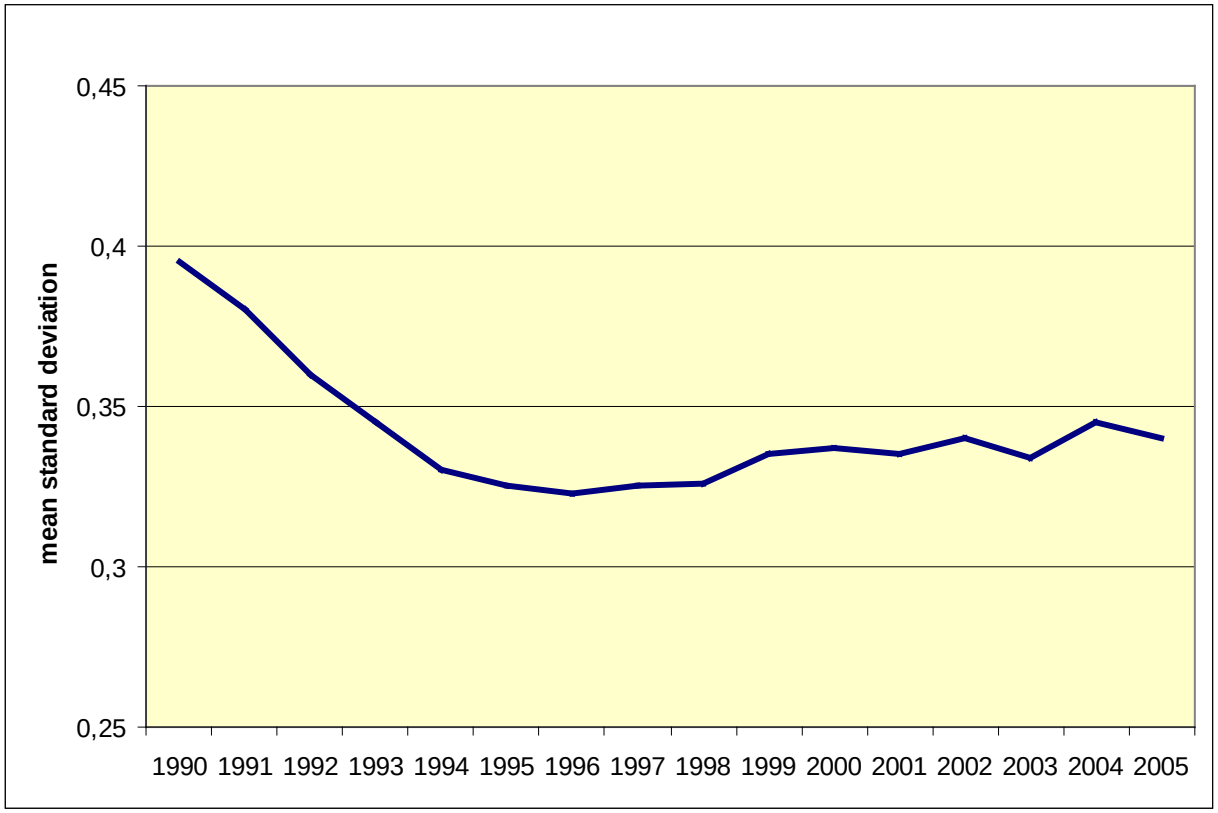

Figure shows average price of a basket of identical brand name products in the Eurozone countries

Average price is expressed as an index relative to the Eurozone average

Source: European Commission

# Eurozone has not increased price convergence

Figure 3.2 Evolution of price dispersion in the Eurozone, 1990– 2005




Source: Wolszczak-Derlacz (2006)

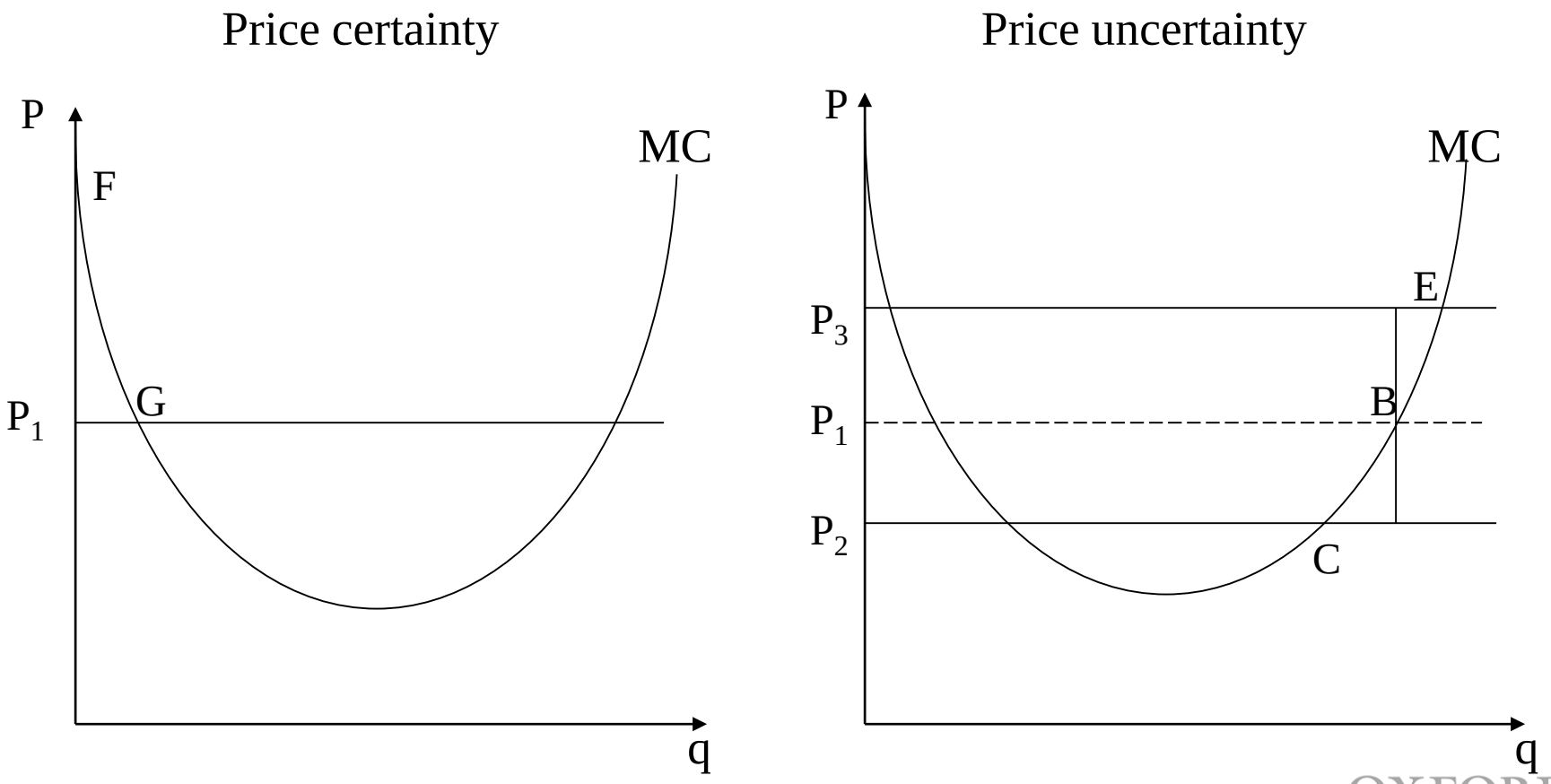
- Euro has not changed this
- There is no evidence of price convergence
- Euro may work indirectly by triggering further market integration in particular sectors, e.g. banking, insurance

# Less exchange risk

- Euro eliminates exchange risk.
- There are two issues:
  - Does the decline in exchange risk increase welfare?
  - Does the decline in exchange risk reduce systemic risk?

# Less exchange risk and welfare

Figure 3.3 Profits of the firm under price certainty and uncertainty

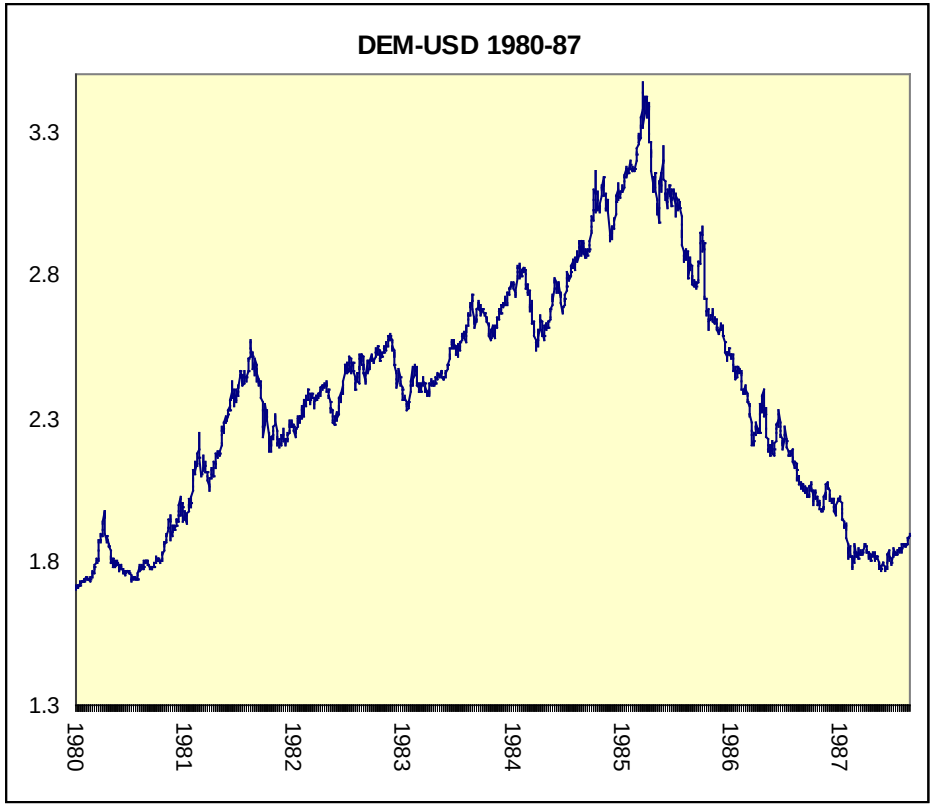


- Profits are higher on average when there is price uncertainty
- Welfare will then depend on degree of risk aversion
- If risk aversion sufficiently high price certainty is preferred by firms
- Model has a number of important assumptions
  - No adjustment costs
  - With sufficiently large price declines firm can go bankrupt; model assumes no bankruptcy costs

- Exchange rate changes are not normally distributed
- There are often very large and sustained changes
- Which are the result of bubbles and crashes
- Examples:

# Two bubbles and two crashes

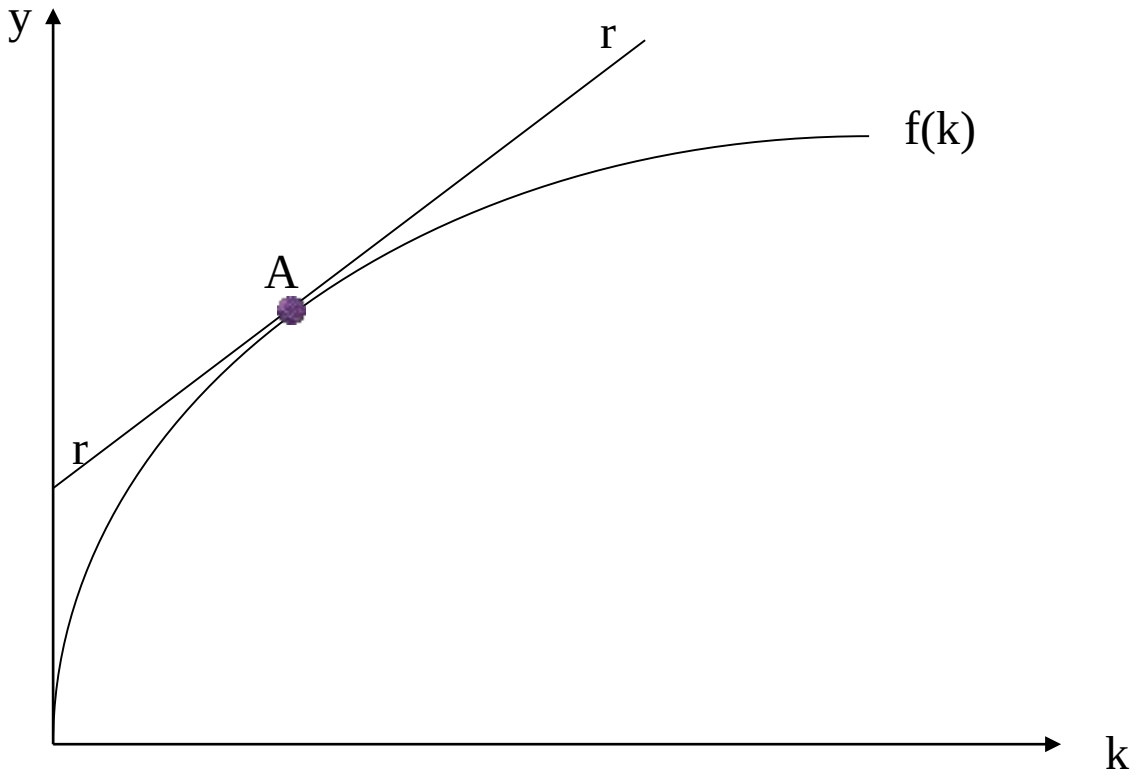
Figure 3.4 Bubbles and crashes in foreign exchange markets: two examples.




- Large exchange rate movements are a recurrent problem with freely floating exchange rates
  - creating large adjustment costs
  - they occurred massively during the early 1990s within EU when some currencies (e.g. the Italian Lira and the Spanish peseta) depreciated by 20 to 30% creating large adjustment costs in countries like Germany and the Benelux
- These large exchange rate movements between the currencies of highly integrated countries became sources of asymmetric shocks
- …and convinced many leaders of EU countries to move into a monetary union

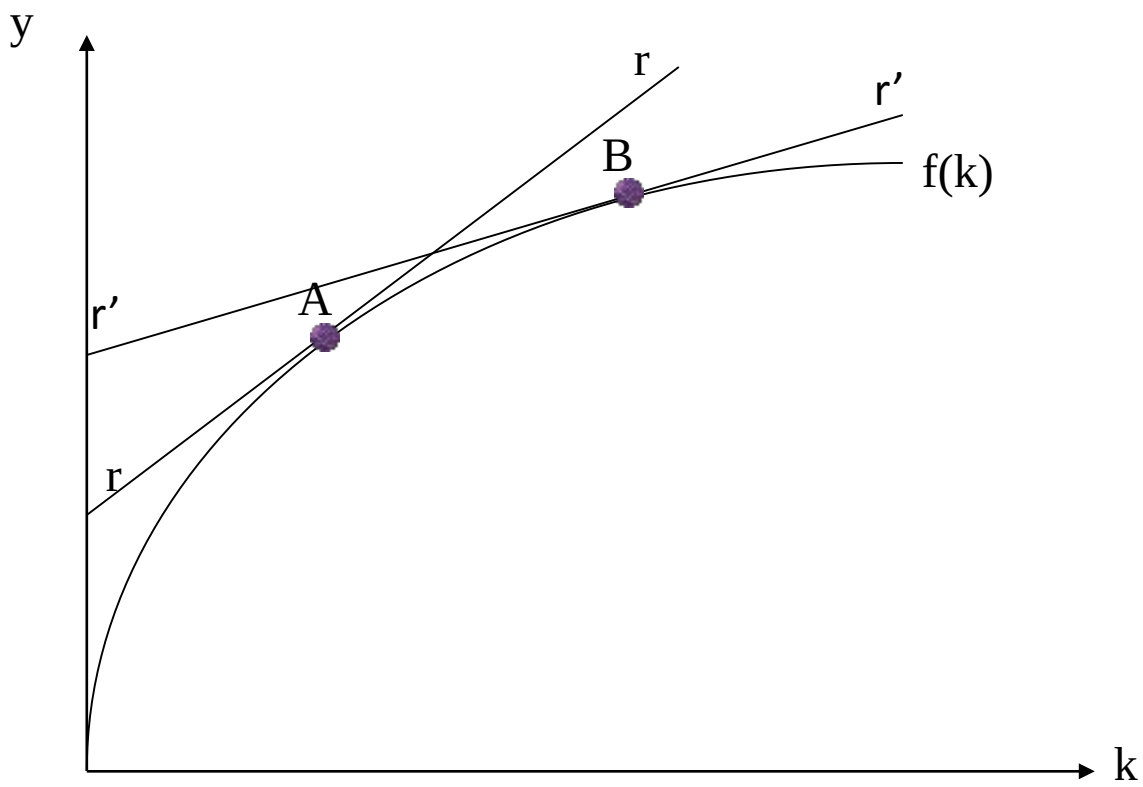
# Monetary Union and economic growth

Figure 3.5: Neo-classical growth model



# Potential growth effects of monetary union

Figure 3.6 The effect of lower risk in the neoclassical growth model




MU eliminates exchange risk and may reduce systemic risk. If so, real interest rate declines

rr-line becomes flatter (r'r')

Economy moves from A to B

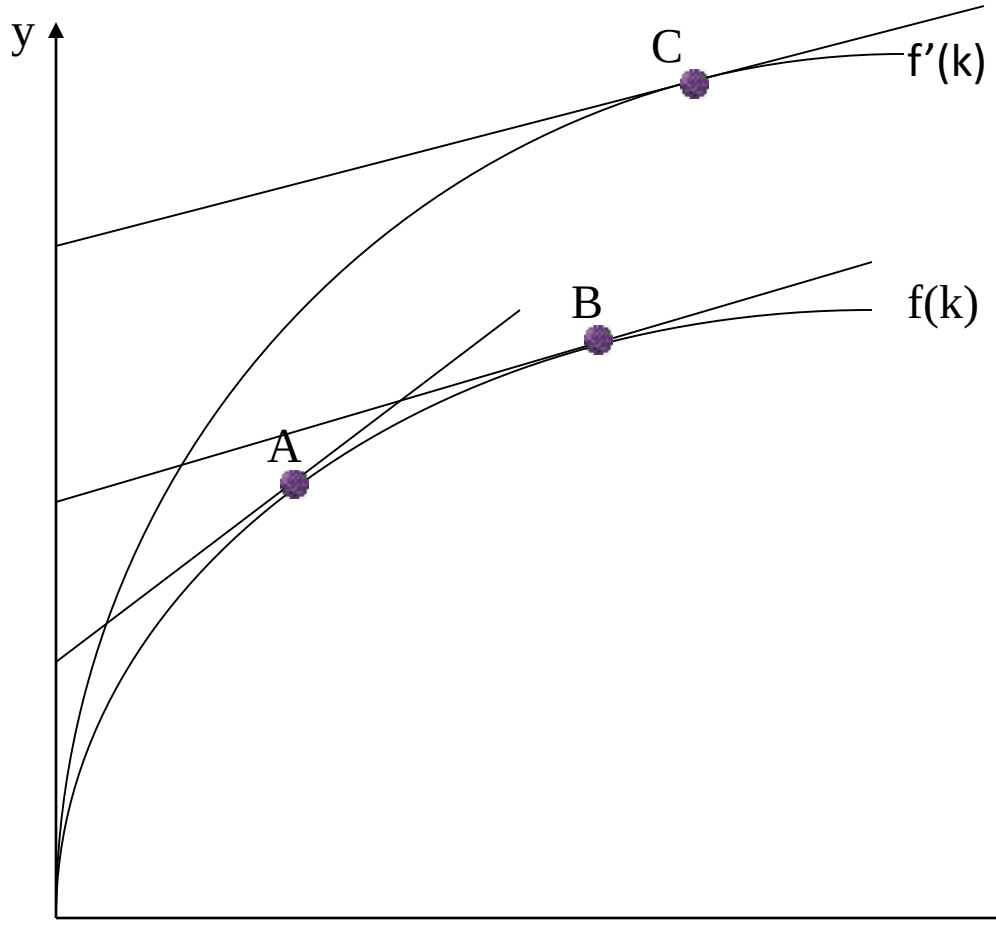
Per capita income increases because of capital accumulation

Economic growth increases during transition from A to B

Temporary effect

# Endogenous growth and monetary union

Figure 3.7 Endogenous growth in the ‘new’ growth model

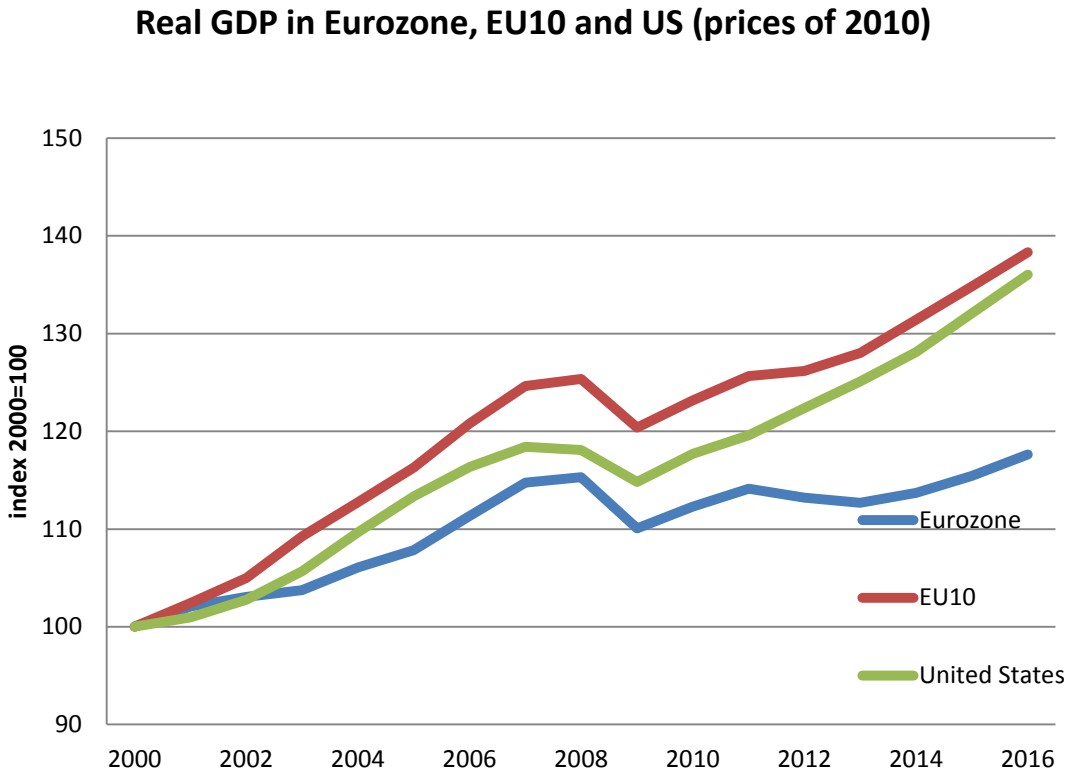



Capital accumulation can lead to dynamic effects leading to technological innovations.

Production function f(k) then shifts outwards raising economic growth

Permanent effect

# How much of this growth promise has come through?




Not much.

If anything evidence suggests growth in Eurozone has been slower than outside Eurozone.

Source: European Commission, Ameco

# Why has monetary union not boosted growth?

- Main reason: reduced exchange rate uncertainty within the union did not lead to a significant decline on the real interest rate in the Eurozone.
  - Only in the "catching up" countries like Ireland, Spain, Portugal, and Greece did the real interest rate come down significantly
  - It is in these countries (with the exception of Portugal) that we observe an acceleration of economic growth as predicted by the theory
  - But this was undone since sovereign debt crisis

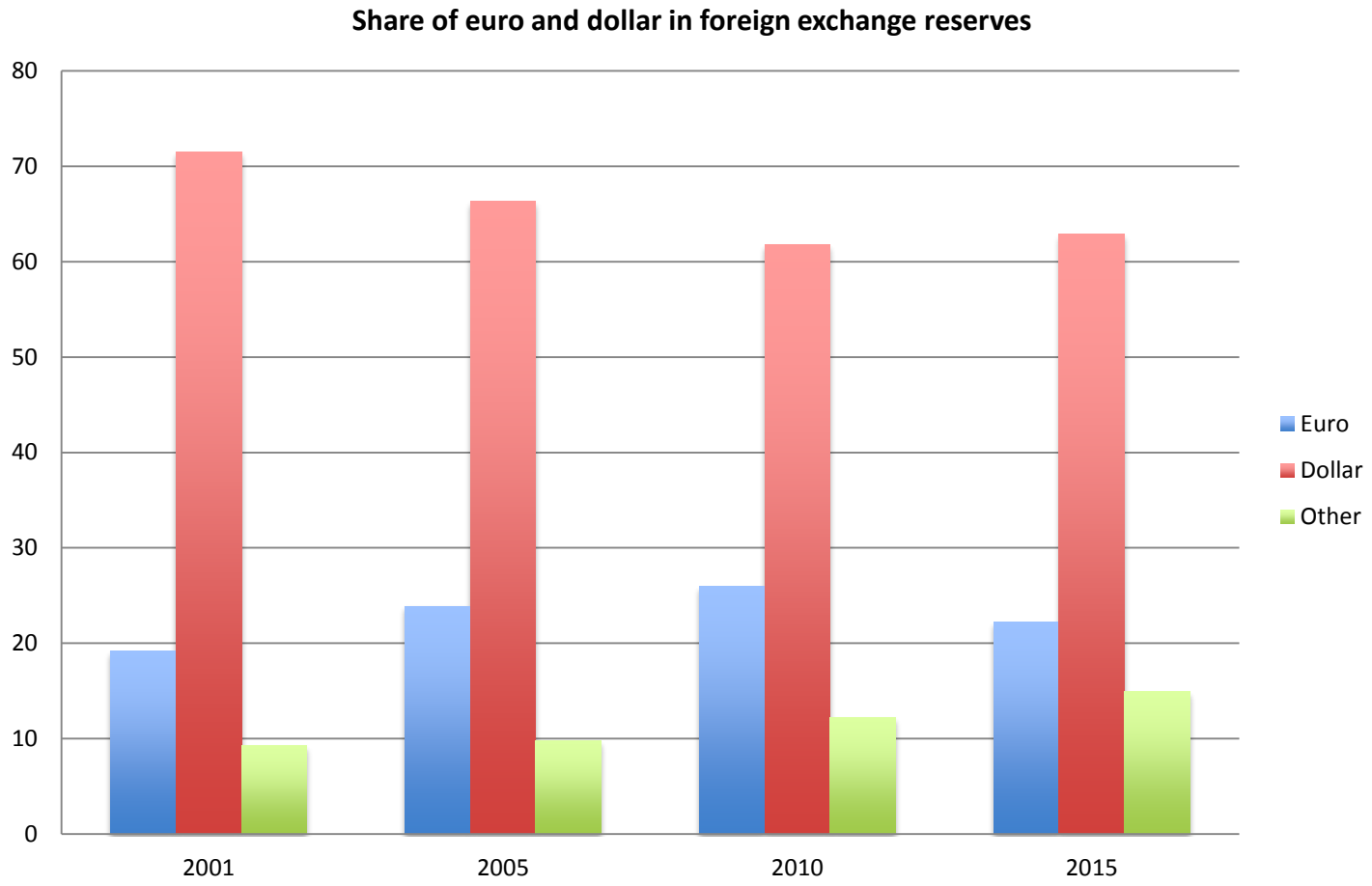
- The reduction in exchange rate uncertainty does not necessarily reduce the *systemic* risk
- Less exchange rate uncertainty may be compensated by greater uncertainty elsewhere, e.g. output and employment uncertainty
- As a result, firms that operate in a greater monetary zone may not on average operate in a less risky environment

# Empirical evidence about monetary union and trade

- First generation empirical studies found little relation between exchange rate volatility and trade
- Using cross-section evidence Andy Rose recently found strong effect of monetary union on trade:
  - a monetary union doubles trade among members of union, on average.
  - More recent econometric evidence has reduced these effects to 10%-20%
  - “Mea Culpa” of Andy Rose in 2015: even 10-20% overstates the effect

# Benefits of an international currency: seigniorage

- International use of the dollar creates seigniorage gains for the US
- Similarly, if euro becomes an international currency, seigniorage gains will follow for Euroland
- These gains, however, remain relatively small:
  - in the case of the US: less than 0.5% of GDP per year

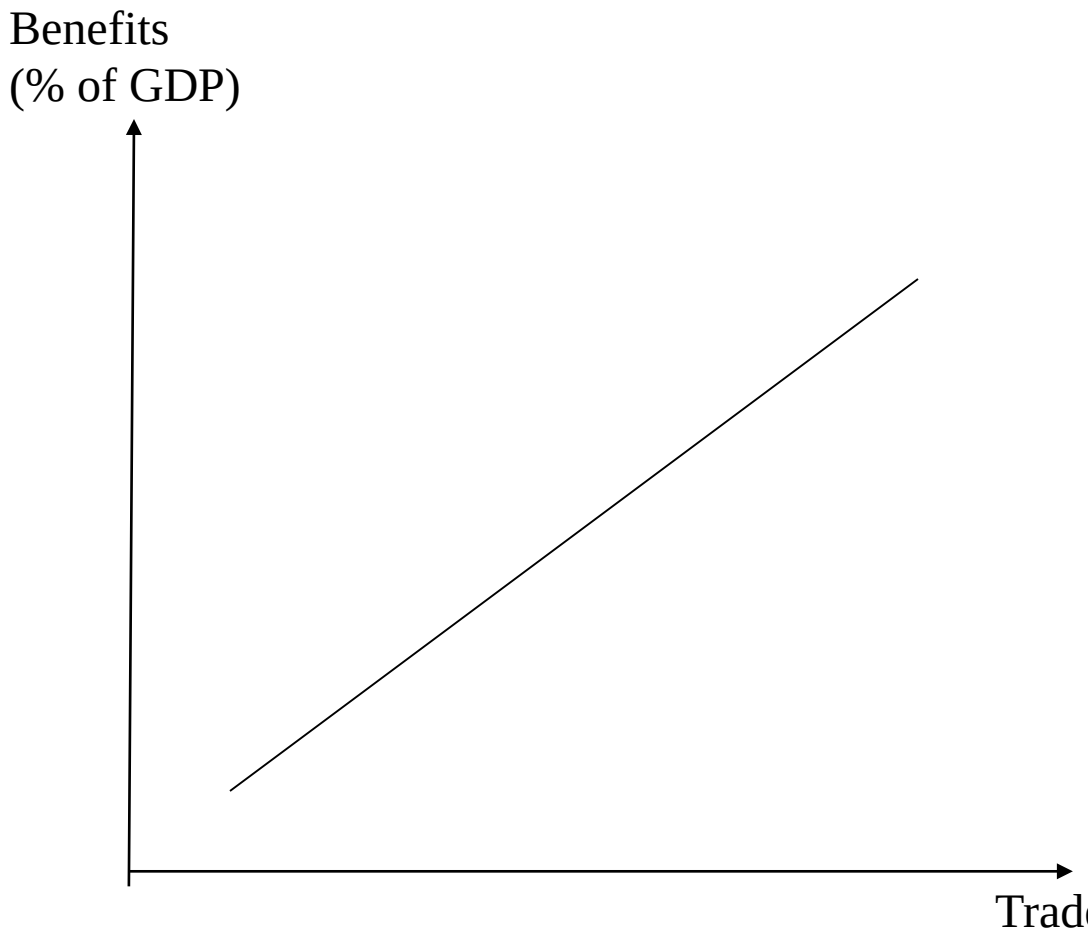

Share of euro and dollar in foreign exchange reserves
80
70
60
50
40
30
20
10
0
2001
2005
2010
2015
Euro
Dollar
Other

# Benefits of an international currency: easy government finance

- US profits most from international role of dollars:
  - Foreign central banks (e.g. China) hold a few trillion dollars as reserves
  - Thereby allowing for easier finance of US government deficits
  - This can also lead to (international) moral hazard

# Benefits of monetary union and openness

Figure 3.12 Benefits of a monetary union and openness of the country



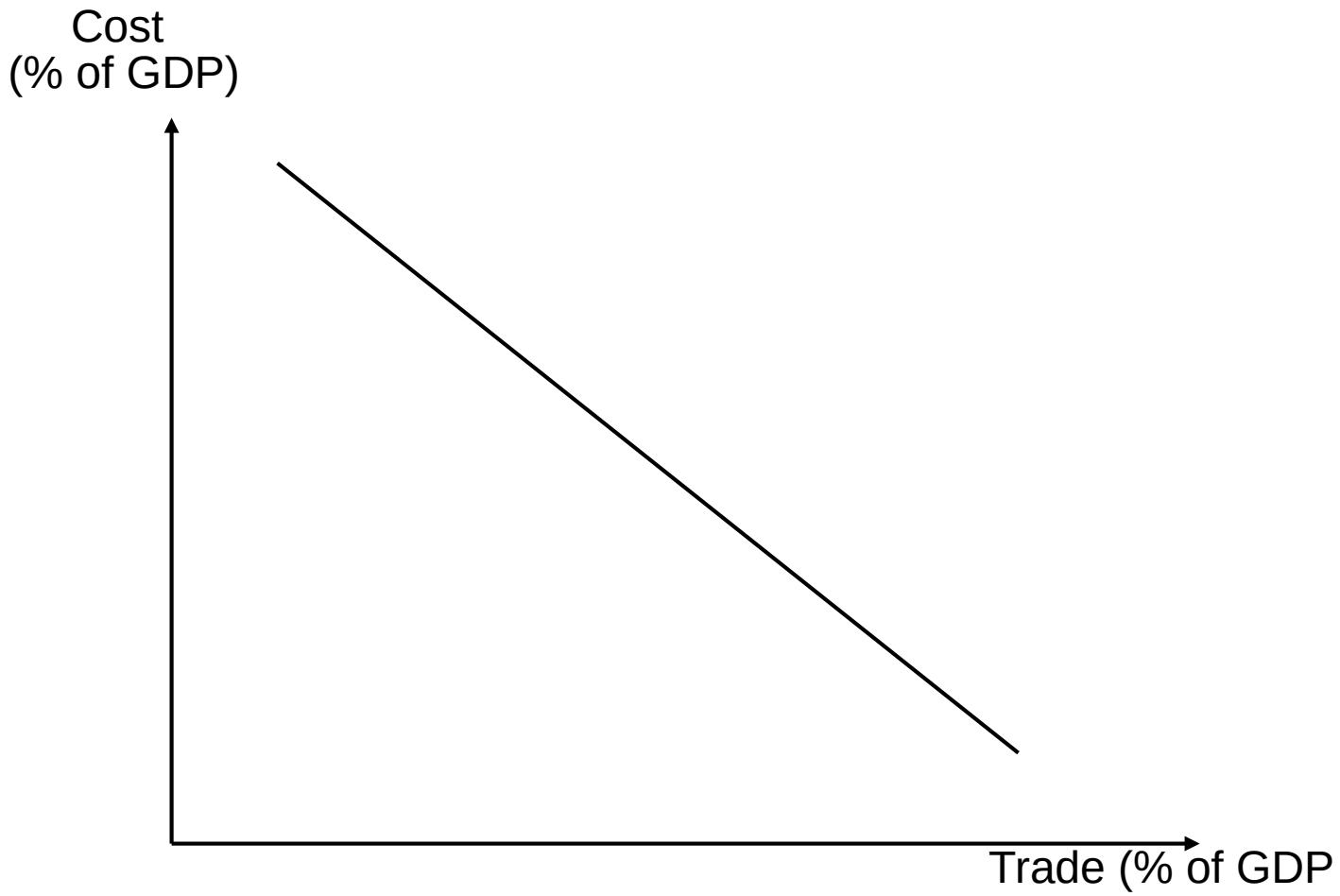

Benefits of monetary union are likely to be larger for relatively open economies

In absence of monetary union, transaction costs and exchange risk are larger for firms in very open economies

Monetary union will be more beneficial for firms in very open economies

Upward sloping benefit line

# Recall: The cost of a monetary union and the openness of a country



# Next chapter: Costs and benefits of a monetary union

Figure 4.1 Costs and benefits of a monetary union