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**President**
**of the Deutsche Bundesbank**

# European Financial Integration and Monetary Policy

Public lecture at the
International Center for Monetary and Banking Studies
in Geneva
on 7 June 2005

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# European (Financial) Integration and Monetary Policy

Professor Axel A Weber

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# Agenda

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## A European financial integration

I Definition and impact of financial integration

II State of European financial integration

III Monetary policy implications

## B Heterogeneity in the euro area

I Output growth dispersion

II The degree of inflation heterogeneity in EMU

III Inflation heterogeneity – Determinants

IV Real interest rate effect versus real exchange rate effect

# A Financial Integration

## I Definition and impact of financial integration

# Definition of financial integration

**Potential market participants with the same relevant characteristics**

**(1) face a single set of rules,**

**(2) have equal access to markets and**

**(3) are treated equally**

# Benefits of financial integration: Fostering economic growth

# I State of European financial integration

# Financial integration

(a) Financial market were deregulated and cross-border capital movements were liberalised during the 1980s and 1990s

→ changes in the level and pattern of cross-border capital flows

(b) Introduction of the euro

→ Increase in transparency

(c) Technological progress

(d) Several directives aimed at enhancing transparency, promoting competition and creating a level playing field in the market for financial services have come into effect (eg IAS, Basel II, FSAP)

# Financial integration – Measurement

**Indicators of financial integration:**

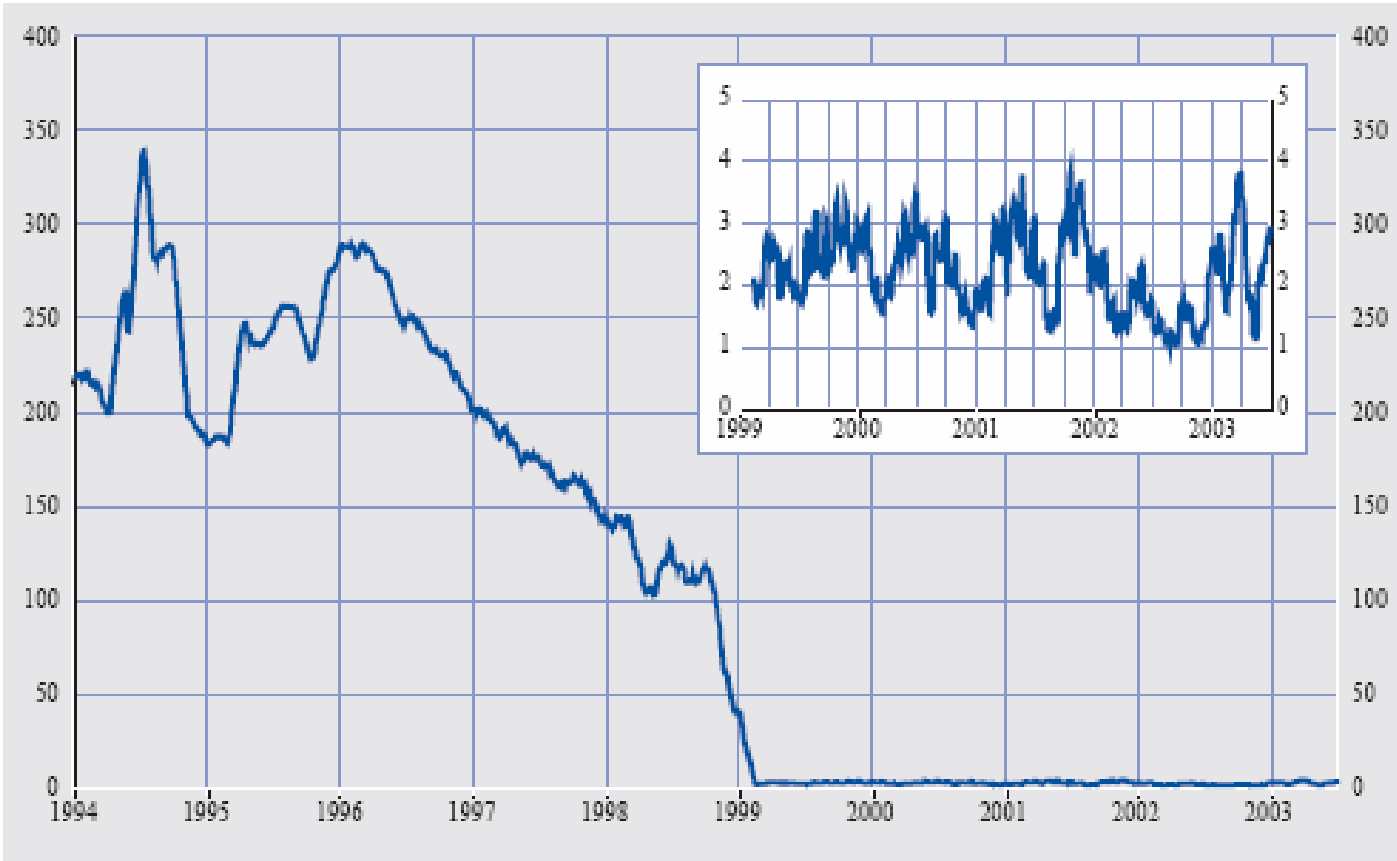
1 **Regulatory and economic barriers**

2 **Price-based or yield-based measures**

3 **Quantity measures**

# State of financial integration: The money market

**Cross-sectional standard deviation of average overnight lending rates among Euro-area countries** (30-day moving average, basis points).




**The money market is almost completely integrated**

# State of financial integration: The bond market

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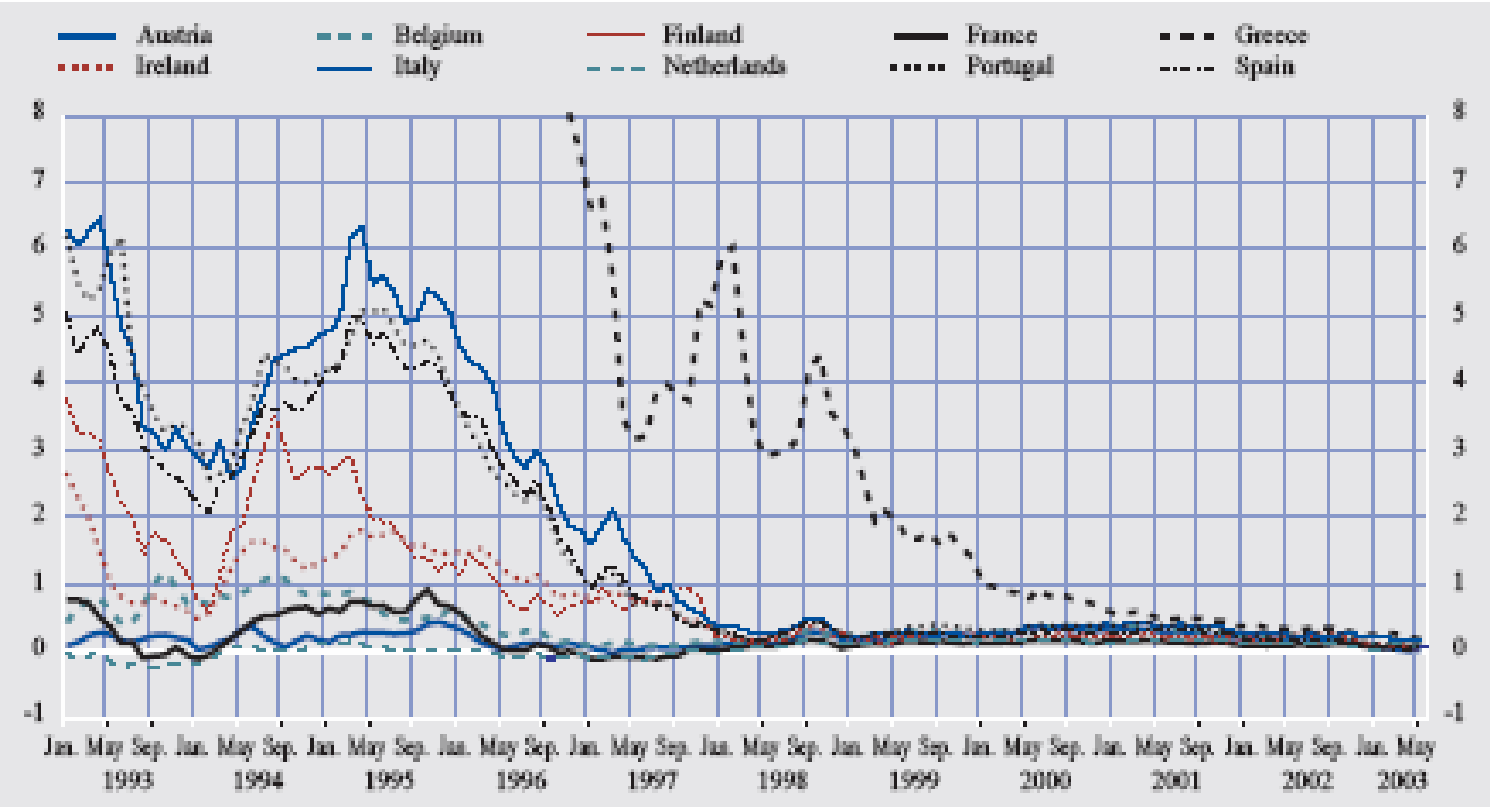
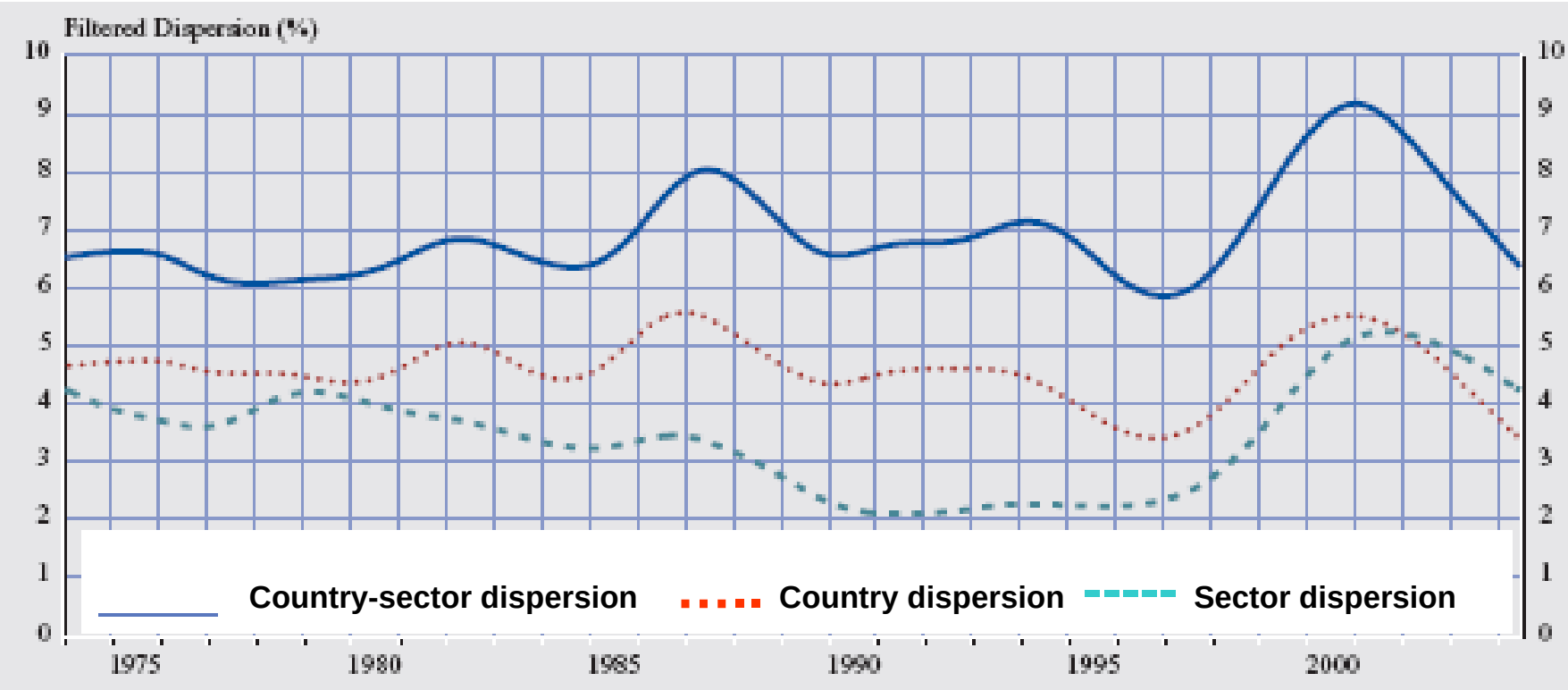
## Yield spread for 10-year government bonds relative to Germany




**Integration in bond markets has also progressed significantly**

# State of financial integration: The equity market

## Hodrick-Prescott-filtered country, global EMU sector, and country-sector dispersions in monthly returns




**In the equity markets, integration is a slow and laborious process of overcoming fragmentation**

# Consequences of financial integration

- **Better use of capital markets**
- **Greater informational efficiency of financial markets owing to increased transparency**
- **Improved financing possibilities owing to innovative instruments**
- **More risk-sensitive pricing of loans**
- **Increasing competition among banks and between banks and direct financing**

# II Monetary policy implications

# Monetary policy implications

**Increased capital market orientation could influence the transmission of monetary policy:**

**(1) Volatility of transmission might be increased**

**(2) Asset prices are assuming greater importance**

**→ Extracting the signals from monetary developments regarding the risks to price stability is becoming more challenging**

**(3) Interest rate pass-through might converge in euro-area countries**

## B Heterogeneity in the euro area

## I Output growth dispersion

# Output growth dispersion – Historical perspective

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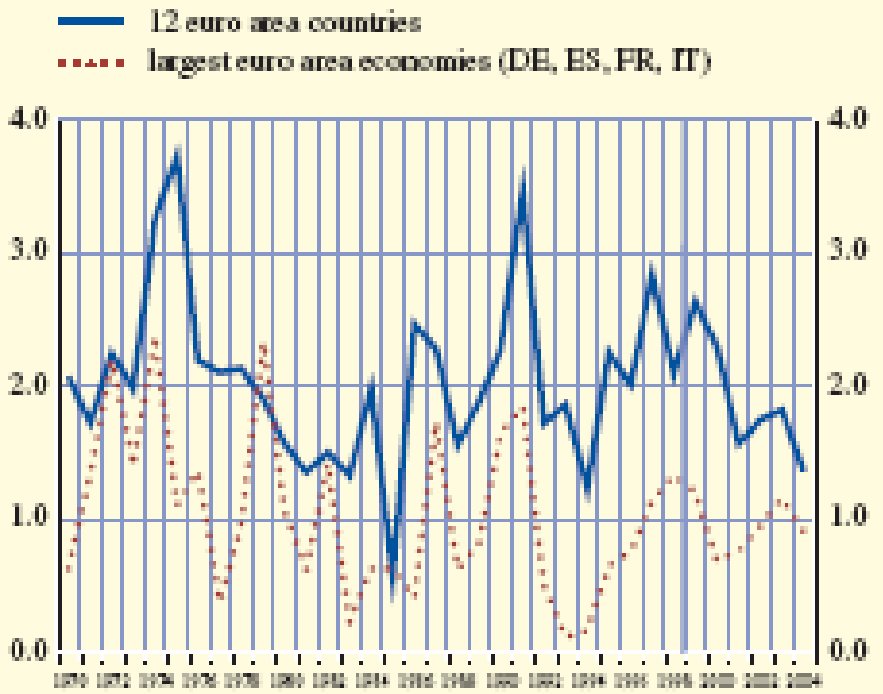
**Chart A Dispersion of real GDP growth rates (annual averages) across the euro area countries**

(percentage points) 1)



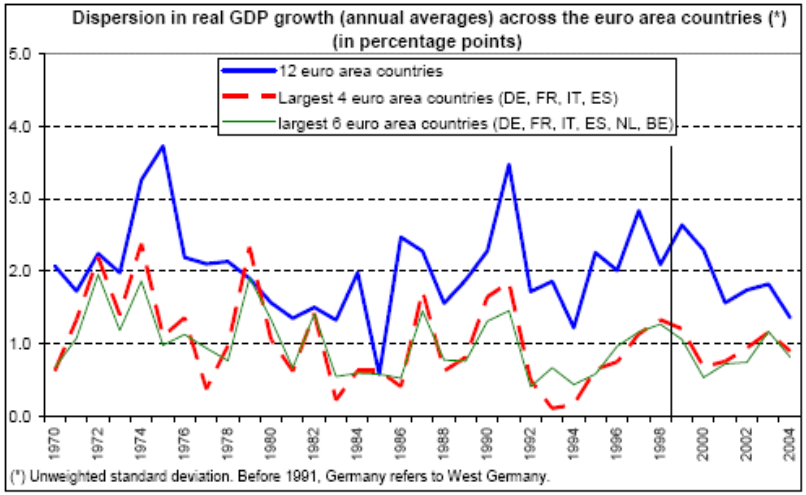

Sources: European Commission and ECB calculations.
1) Unweighted standard deviation. Before 1991, Germany refers to West Germany.

- **Since the 1970s the unweighted standard deviation has fluctuated, on average, around a level of 2.0 percentage points.**
- **Last year dispersion fell to around 1.4 percentage points**

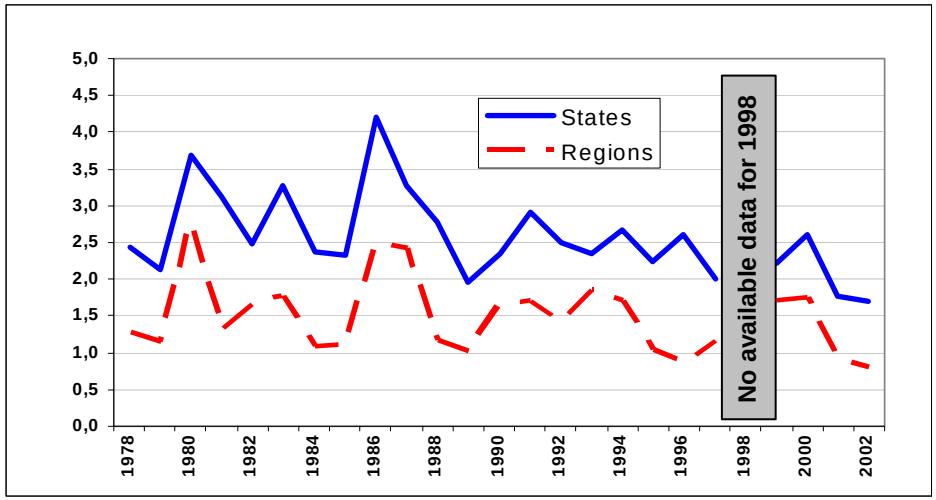
**→ Output growth divergence across euro-area countries is not extraordinarily high in a historical perspective**

# Output growth dispersion – International comparison

## EMU




## United States




Source: ECB

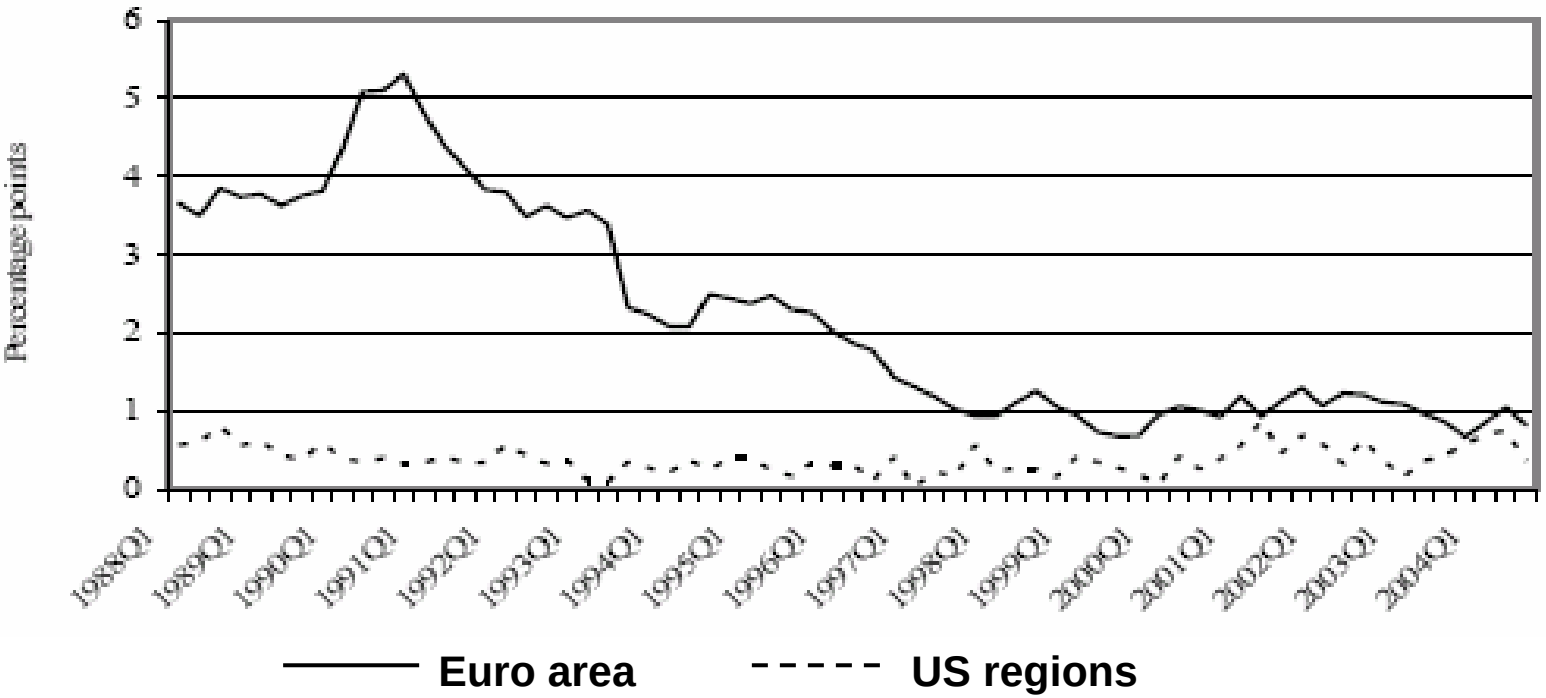
Unweighted standard deviation. Gross State Product. Source: BEA. Data for 1999 until 2003 based on real chained 2000 USD, NAICS classification, 81 industries. Data for 1978 until 1997 based on quantity indexes for real gdp, 2000=100, 63 SIC Classification, 63 industries.

Regions: New England, Mideast, Great Lakes, Plains, Southeast, Southwest, Rocky Mountain, Far West

# II The degree of inflation heterogeneity in EMU

# Inflation heterogeneity – Compared to the US

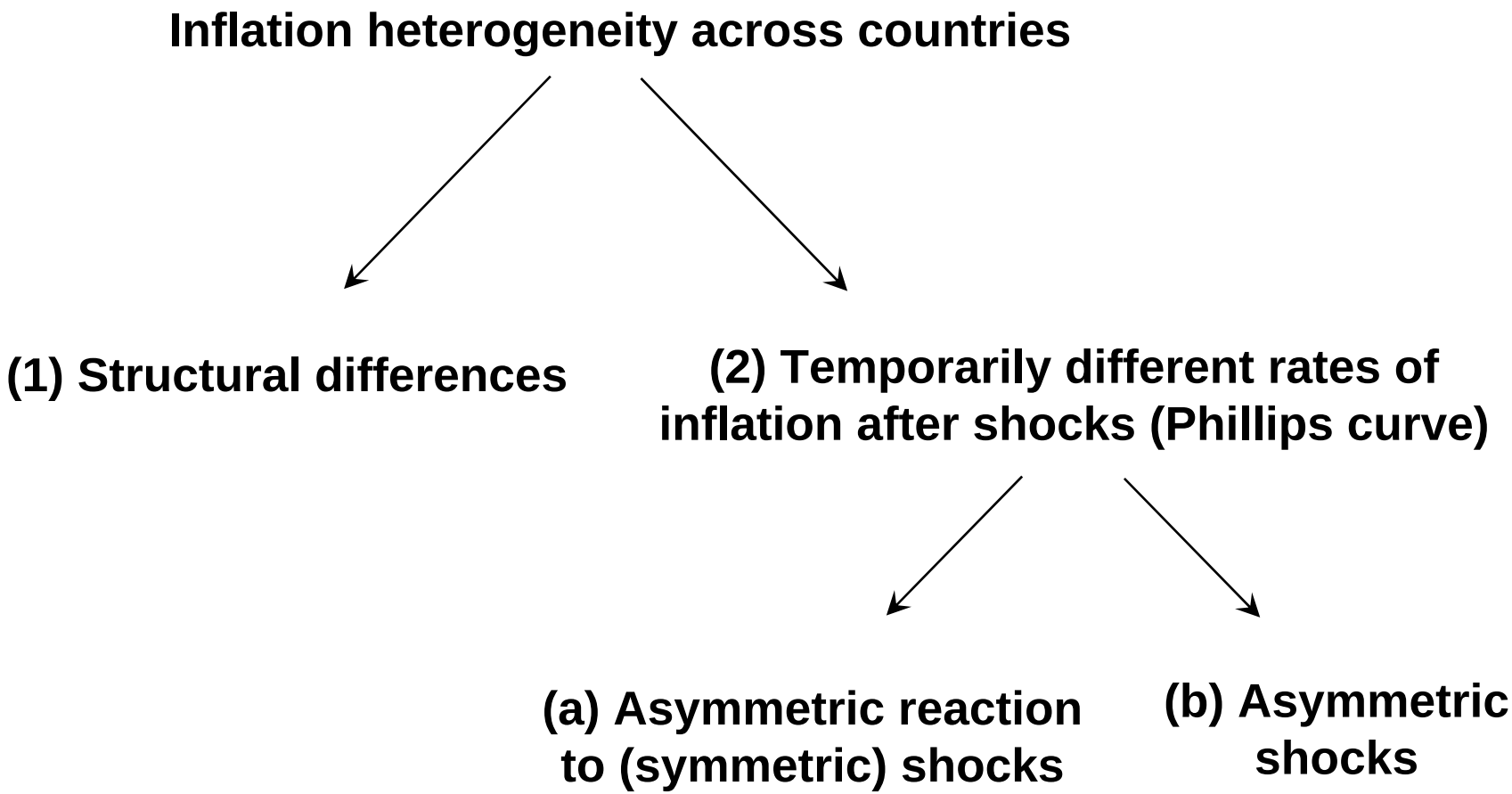
## Inflation heterogeneity in the euro area and in the US (unweighted standard deviation)



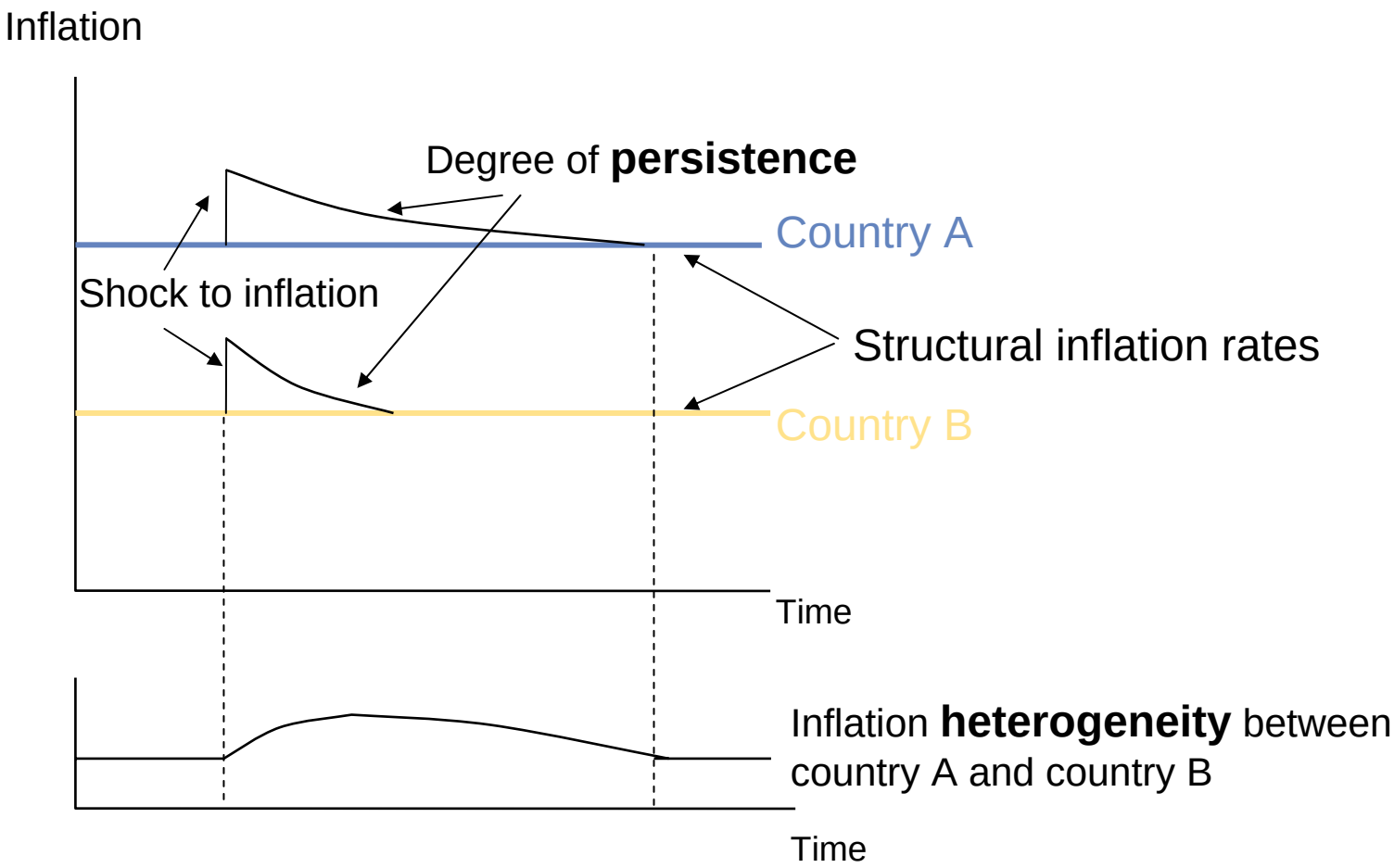

→ **Inflation dispersion in the euro area has declined and is not much higher than in the US**

# III Inflation heterogeneity – Determinants

# Determinants of inflation heterogeneity – Overview



# The link between inflation heterogeneity and inflation persistence



# Structural reasons

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**(1) Composition effect: Differences in consumption patterns and weights of national inflation indices**

**→ Impact is slight due to the high level of harmonisation of national consumption structures and therefore of HICP data**

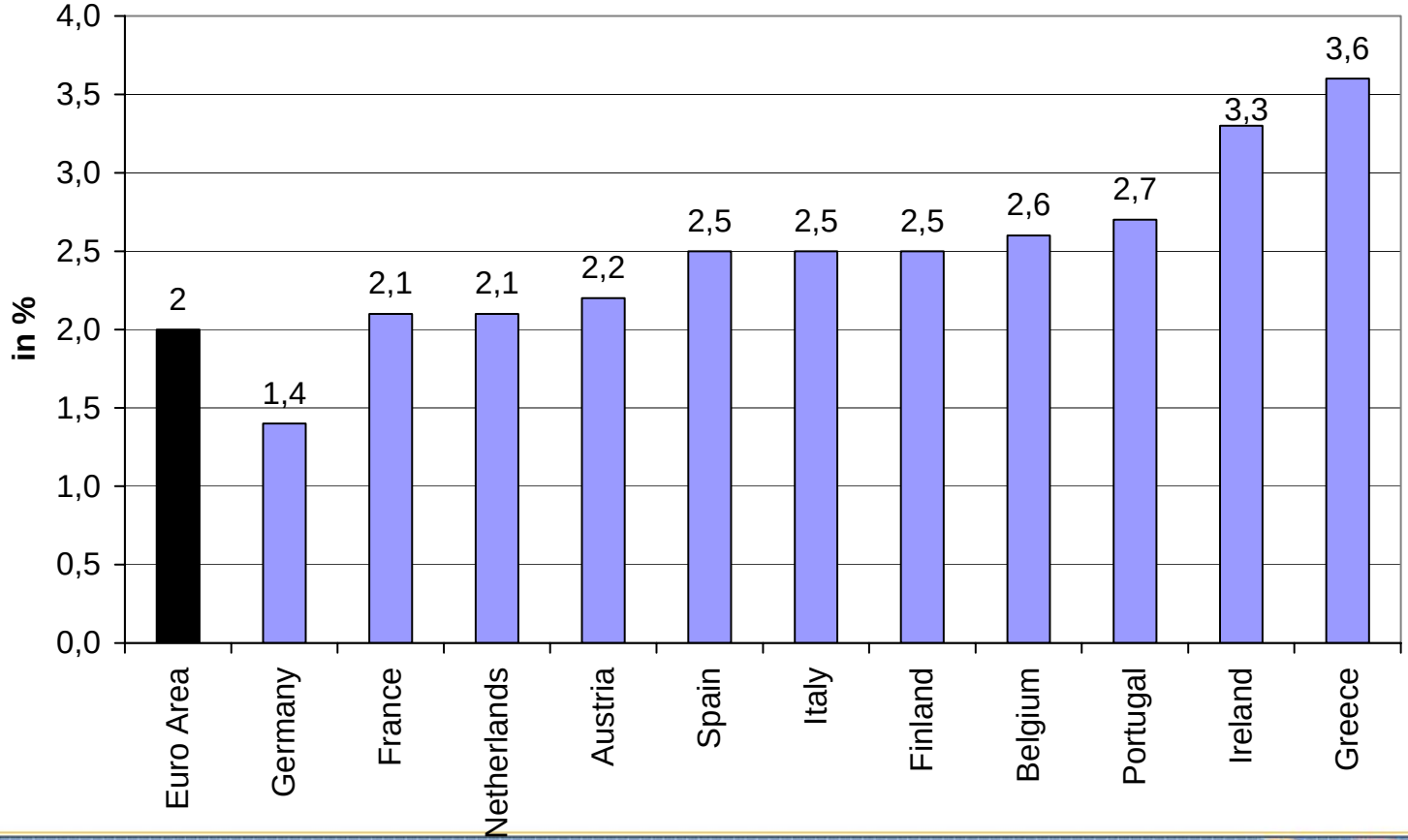
**(2) Balassa-Samuelson-Effect**

**→ Inflation differentials depend on differences in the national relation of productivity growth between tradable and non-tradable sector**

**→ Inflation as a result of inter-sectoral adjustments in a country**

# Structural reasons – Balassa-Samuelson

## Structural inflation rates implied by Balassa-Samuelson effect, average of seven selected studies




**But: empirical studies show that Balassa-Samuelson can account for only part of the observed inflation differentials**

# Temporary reasons

## (a) Different regional reactions to euro-area-wide symmetric supply shocks

**Examples:**

- **Oil price shocks at different degrees of oil dependency***
- **Exchange rate changes at different pass-through patterns which depend on**
  - **openness towards trading partners outside the euro area**
  - **geographical trade structure**
  - **commodity composition of non-euro-area imports**

# Temporary reasons

**(b) Regionally different development of transitory factors (asymmetric shocks)**

**I Differences in one-off domestic policy measures**

**II Different business cycle developments**

# Inflation heterogeneity and output growth differentials

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- Inflation differentials not very high
- Inflation differentials result from structural and temporary factors

- Temporary factors are going to vanish

→ Diminishing effect on real interest rate differentials and output growth dispersion in the long run

- Structural inflation differentials are of longer-term nature

→ Lasting effect on real interest rate differentials and output growth dispersion in the long run

→ but: they are not very high (as already shown)

# IV Real interest rate effect versus real exchange rate effect

# Real interest rate effect versus real exchange rate effect

- different inflation rates appear to imply different real interest rates and therefore different stimulating effects because nominal interest rates have largely converged

- But: Countries with lower inflation rates – which might suffer from a slightly higher real interest rate – may gain competitiveness due to a real deprecitation

=> real exchange rate effect may compensate the real interest effect, especially because it accumulates over time

# Real interest rate effect versus real exchange rate effect – real interest rates in Germany and Italy

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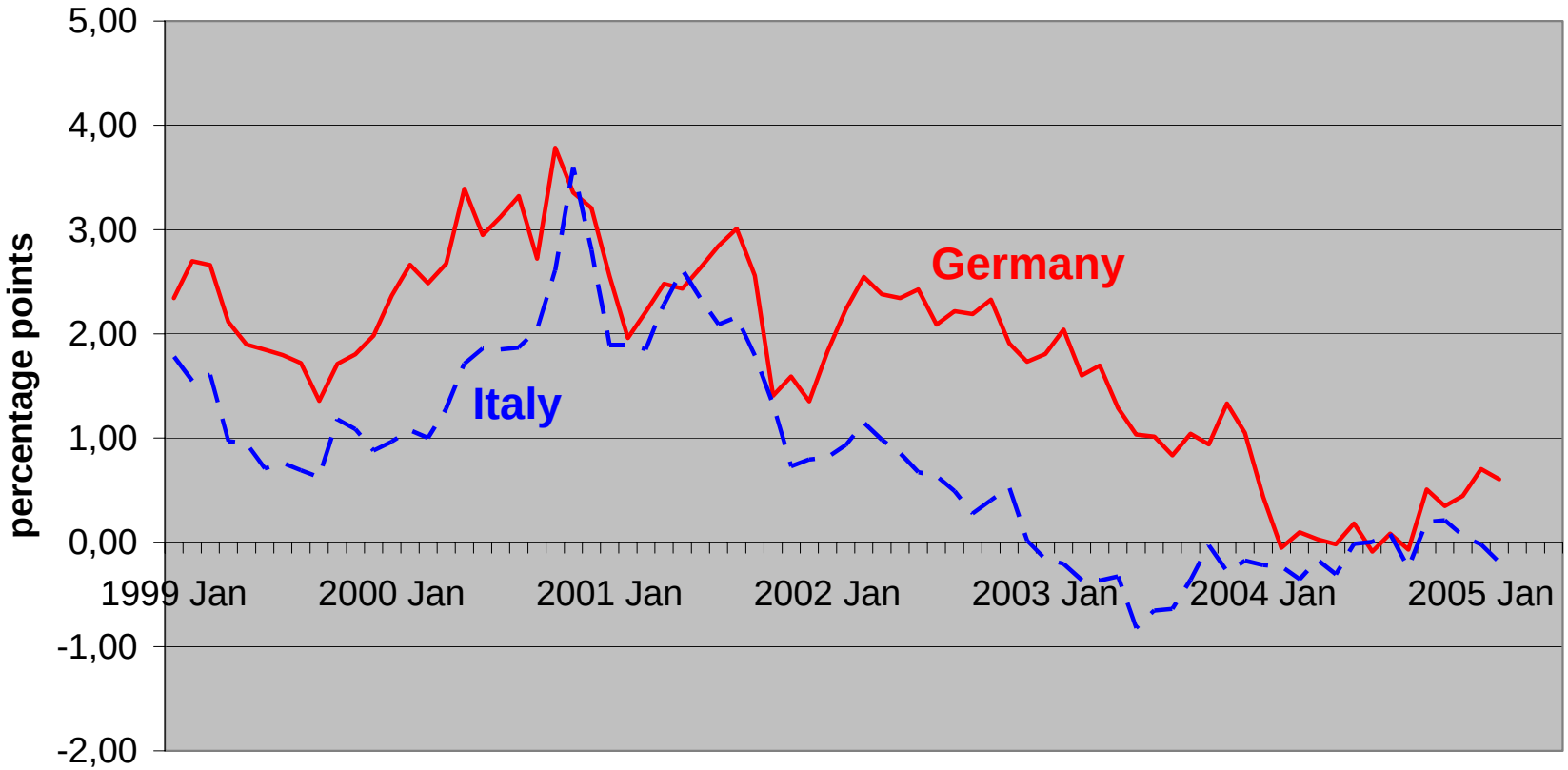
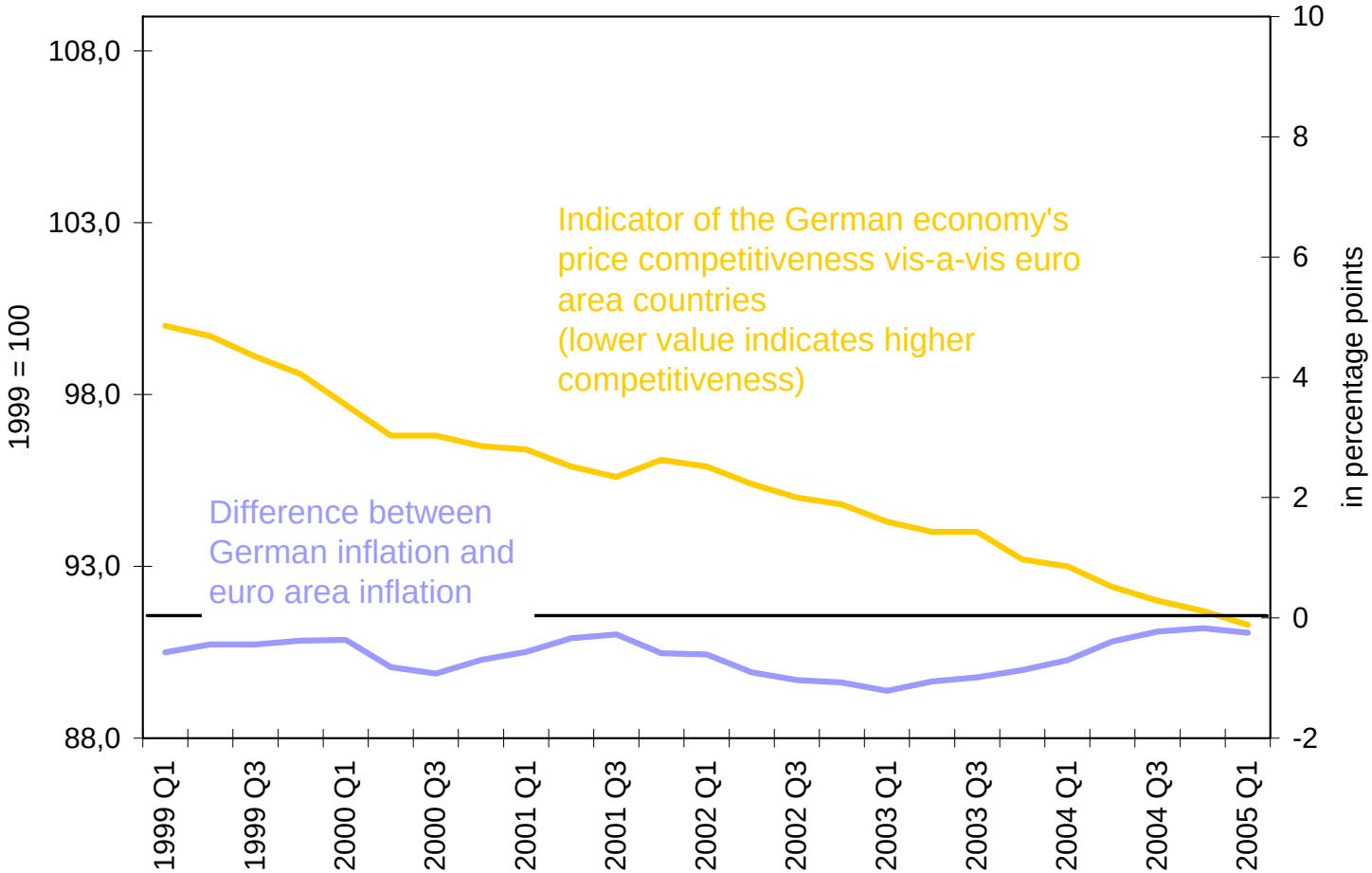
**Short term real interest rates in Germany and Italy (ex post; based on 3-month-EURIBOR)**

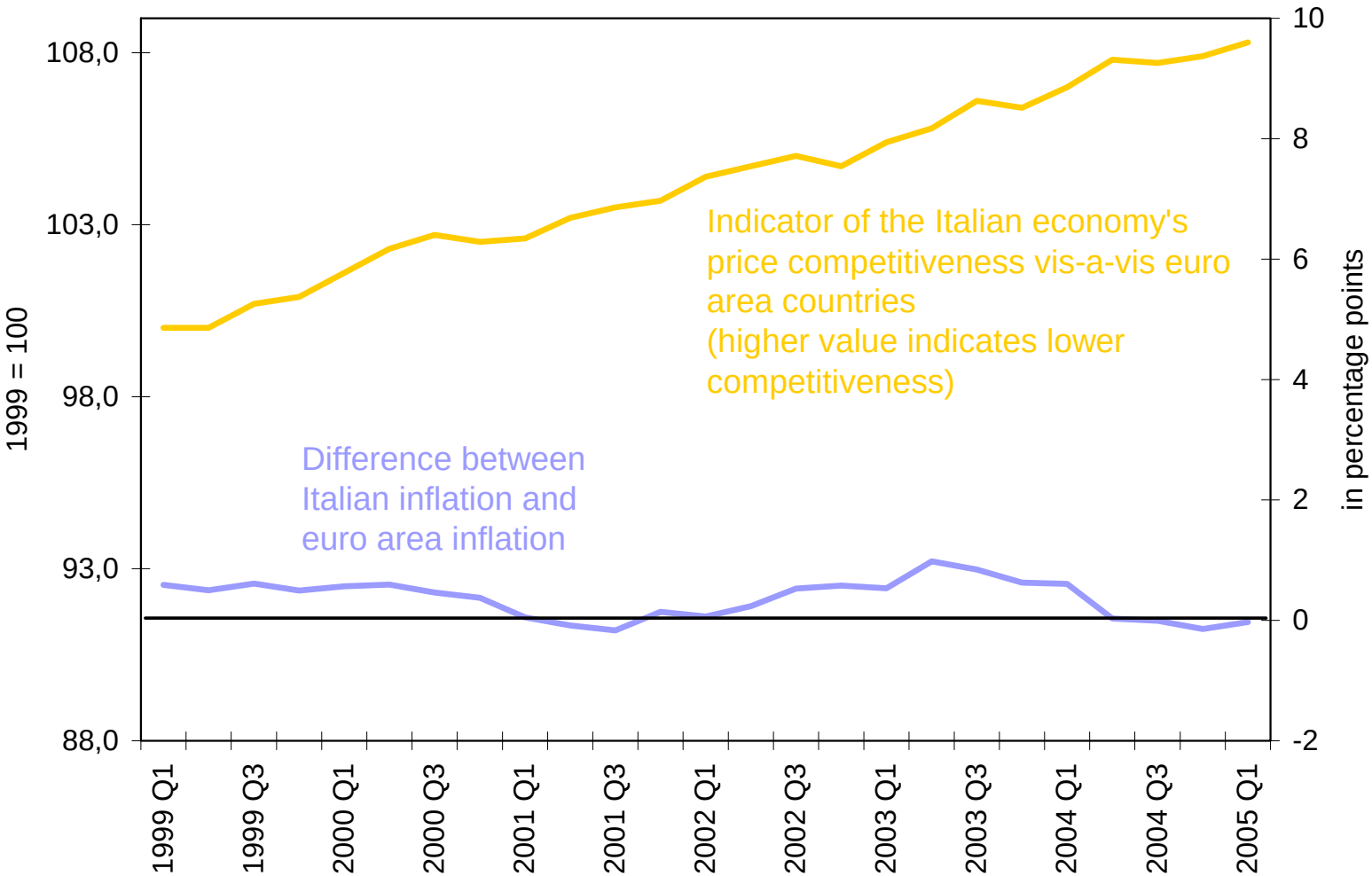


# Real interest rate effect versus real exchange rate effect – German economy's price competitiveness

## Example of dampening effect through real depreciation: Germany



# Real interest rate effect versus real exchange rate effect – Italian economy's price competitiveness



# Conclusion

- Existing output growth differences largely appear to reflect structural factors
- Cannot be resolved by the ECB's single monetary policy
- Persistently underperforming growth rates must be addressed by suitable structural reforms by national authorities
- Such reforms would not only contribute to raising potential growth rates and smoothing growth differentials but would also facilitate the communication and implementation of the single monetary policy
- There is less research on output growth divergence than on inflation differentials → gap should be closed

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# The End