



EUROPEAN CENTRAL BANK

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# Taxation, tax reform and monetary policy

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# Taxation, tax reform and monetary policy

## Outline

1. Taxation and inflation
2. Taxation and growth
3. Relevance for the ECB's monetary policy

# Taxation and inflation (I)

## Direct taxes

- **Supply side:** e.g. profit tax  $\uparrow$  , net profit margins  $\downarrow$  , effect on consumer prices? Depends on economic environment, e.g. product market competition
- **Demand side:** e.g. income tax  $\uparrow$  , disposable income  $\downarrow$  , effect on demand for goods and services and consumer prices? Depends on economic environment, e.g. wage bargaining mechanisms

## Indirect taxes

- e.g. VAT  $\uparrow$  , consumer prices  $\uparrow$  , by how much depends on adjustments of wages and net profit margins

## Taxation and inflation (2)

### Empirical Evidence

- **VAR models:** limited impact, but do not distinguish between different tax categories
- **Macroeconomic models:**
  - Direct taxes have negligible impact
  - Indirect taxes and employers' social contributions have relatively large impact
  - Effects on prices take time to materialise

## Taxation and inflation (3)

Effect on prices of 1% changes in Personal Income Tax and Indirect Taxes (in percentage points)

		Personal income tax		Indirect taxes	
		t	t+1	t	t+1
Year					
<b>Euro area</b>	<i>Area-Wide Model</i>	-0.05	-0.20	0.85	1.17
	<i>INTERLINK</i>	-0.1		1.2	
<b>Spain</b>	(Banco de España model)	-0.07	-0.31	1.05	1.46
	( <i>QUEST</i> )	-0.01		1.44	

Source: Henry, J, P. Hernandez de Cos, and S. Momigliano, ECB Working Paper No 396, "The short-term impact of government budgets on prices: evidence from macroeconomic models."

## Taxation and inflation (4)

### Broader context of fiscal policy

- Effect of tax change on aggregate demand depends on
  - change in government expenditure (aggregate demand = private demand + public demand)
  - perception of sustainability of public finances

### Impact of inflation on taxation

- Inflation  $\uparrow$   $\rightarrow$  tax burden  $\uparrow$  (especially if tax systems are progressive and tax brackets are fixed in nominal terms)
- **The inflation tax:**
  - tax on holders of money
  - regressive tax (disproportionately penalises low income households)

## Taxation and growth (I)

- **Early literature:** growth exogenous → no role for taxation
- **Endogenous growth literature:** level and structure of taxes matter.  
Affect the returns on:
  - **Human capital accumulation** (labour taxes)
  - **Physical capital accumulation** (e.g. corporate income tax)
  - **Research and development** (tax relief, incentives)
  - **Employment and retirement decisions** (tax and benefits system)
- **Capacity of the economy to adjust to shocks:**
  - e.g. Stamp duty on property transaction → regional mobility
  - e.g. Tax and benefit systems → cyclical unemployment may become structural

## Taxation and growth (2)

**Role of tax reforms** → Reduce tax distortions

Three important elements:

- **Broad-based tax systems:** allows for lower average and marginal tax rates
- **Tax compliance:** makes tax system more efficient, requires transparency and simplicity of fiscal code
- **Fairness:** broad-based and simple tax systems help achieve fairness, tax systems that are *de jure* progressive can be *de facto* regressive



## Taxation and growth (3)

### Situation in Europe (1)

Revenue (as a percentage of GDP)			
	1960	1980	2000/latest
Euro area average	27.1	39.9	44.5
United States	27.0	30.5	32.9
Spain	18.7	29.0	39.2

*Source: AMECO and Tanzi and Schuknecht (2000)*

## Taxation and growth (4)

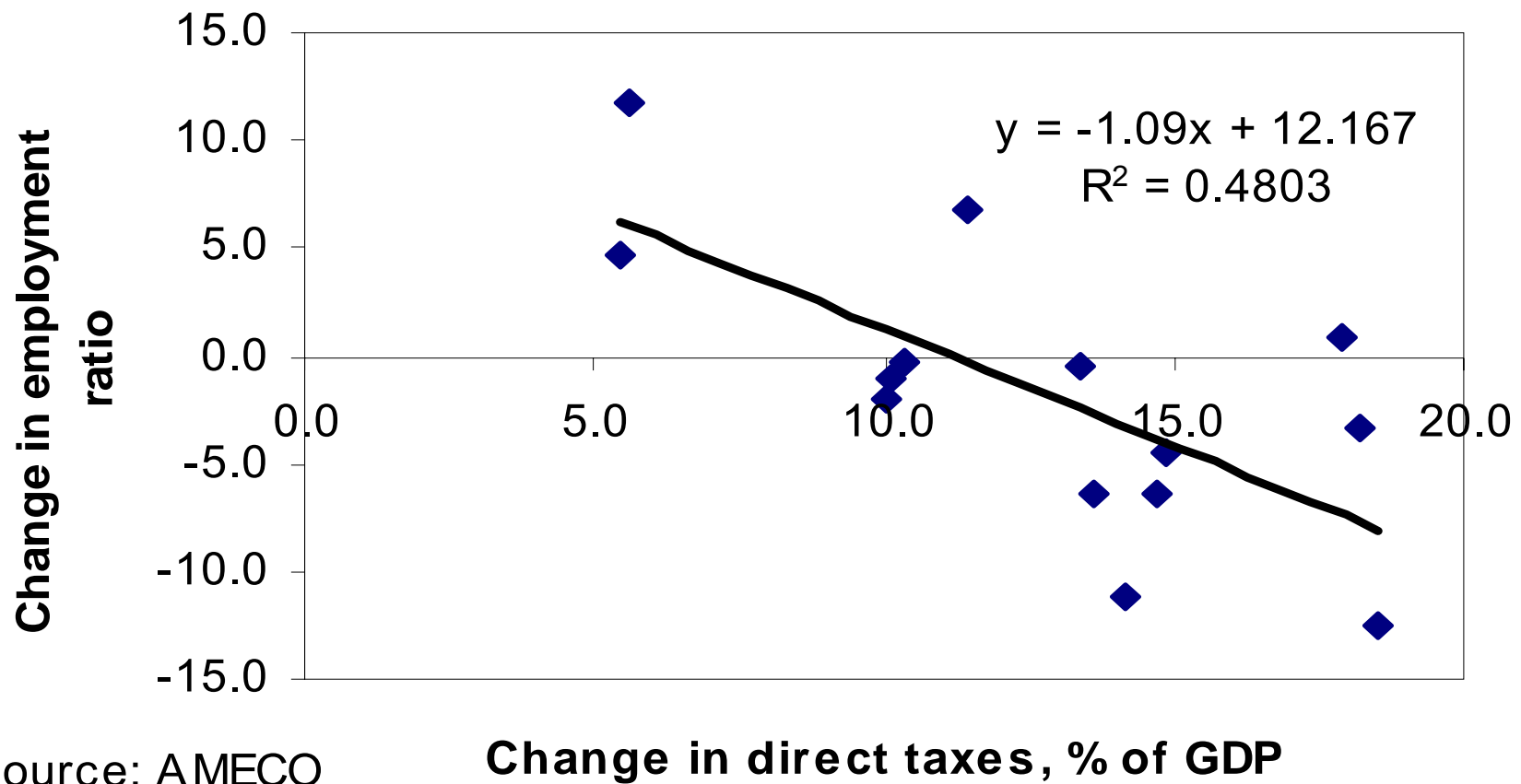
### Situation in Europe (2)

Marginal tax rate for employees* (2003)			
	low income	middle income	high income
EU15 average	37.3	39.1	46.9
US	29.1	29.1	39.1
Japan	18.7	22.9	32.0
Germany	51.3	58.0	63.2
Spain	34.0	30.0	33.0

*Source: OECD Recent tax policy trends and reforms in OECD countries (2004)*  
*\*Income tax plus employee social security contributions less cash benefits*

## Taxation and growth (5)

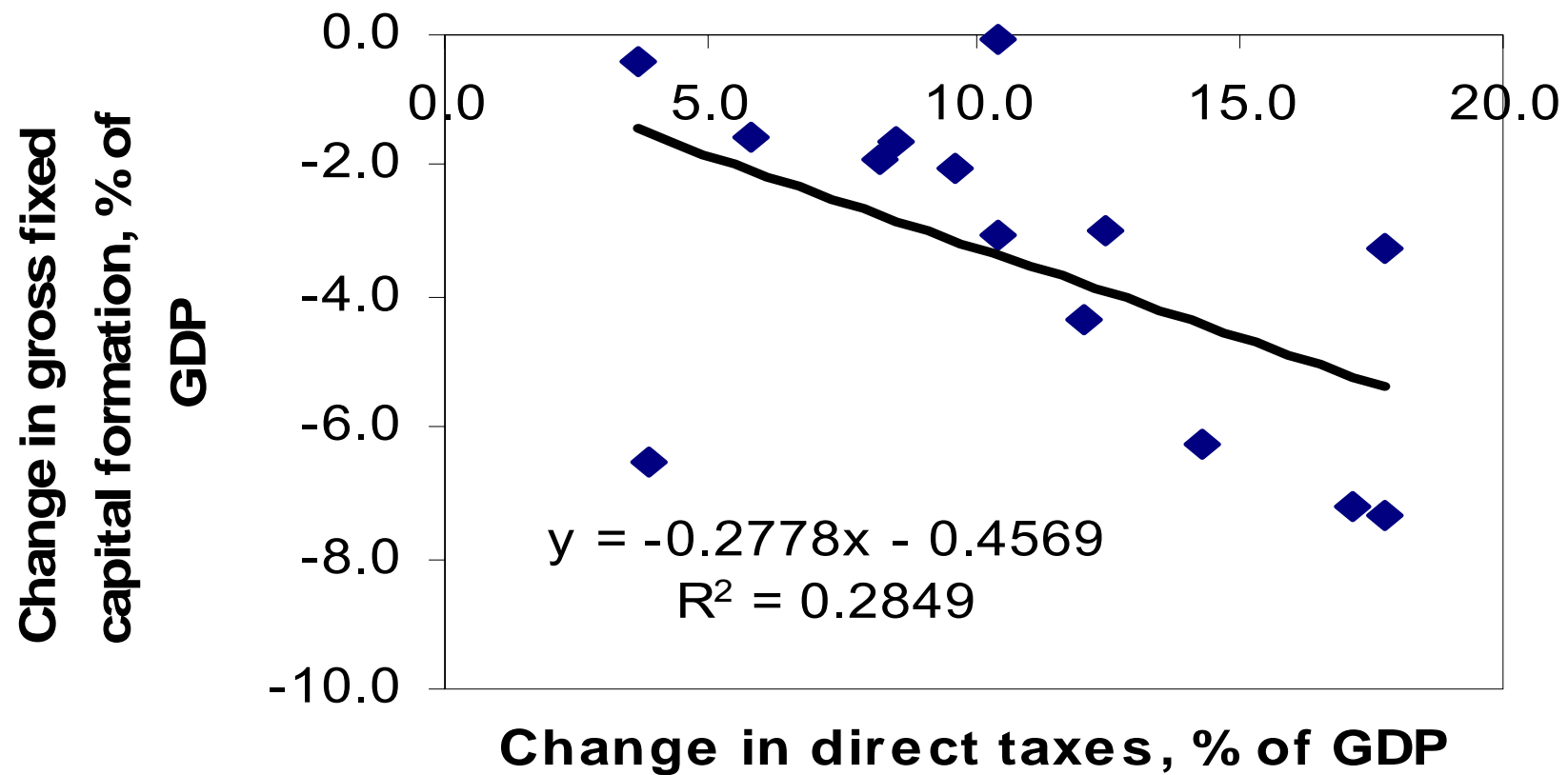
**Chart 8: Change in direct taxes 1960-1990 vs change in employment ratio, 1960s-1990s**



Source: AMECO

## Taxation and growth (6)

**Chart 7: Change in direct taxes 1960-1990 vs change in capital formation, 1960s-1990s**



Source: AMECO and Tanzi and Schuknecht, 2000.

## Taxation and growth (7)

### Situation in Europe (3)

- Significant scope for tax reform
- Some progress in context of the Lisbon strategy, but overall speed of reform remains slow
- **Tax reforms need to be:**
  - **Affordable** i.e. should not give rise to unsustainable fiscal policies. Tax cuts should be financed by appropriate expenditure reductions
  - **Appropriately timed** i.e. avoid pro-cyclicality, exacerbating inflation differentials.

# Taxation and the ECB's monetary policy (I)

## The ECB's monetary policy strategy

- **Quantitative definition of price stability:** annual increase in the HICP of below but close to 2% “over the medium term”

Decisions based on:

- **Economic analysis:**
  - assessment of current economic and financial developments and implied short to medium term risks to price stability,
  - risks stem primarily from supply and demand in goods, services and factor markets
- **Monetary analysis:**
  - reflects view of inflation as a monetary phenomenon in the long run
  - longer term perspective

## Taxation and the ECB's monetary policy (2)

### Tax changes and monetary policy

- Quantitative definition of price stability” → explicit “**medium-term**” focus. Monetary policy cannot and should **not attempt to fine tune short-term price developments** stemming from tax changes
- But careful monitoring of possible **second round effects** leading to longer term inflationary pressures is needed.
- Second round effects determined by **economic structures** (e.g. wage bargaining mechanisms) and **expectations**
- Monetary policy can help to guide expectations through:
  - **Appropriate communication**: e.g. explanation of short-term price developments
  - **Credible commitment** to maintain price stability over the medium term

## Taxation and the ECB's monetary policy (3)

### Tax reforms and monetary policy

- Reforms that raise trend growth and increase the capacity of the economy to adjust to shocks **facilitate the conduct of monetary policy**. They:
  - **Reduce inflationary pressures**, which, ceteris paribus, may imply less need for monetary tightening
  - Provide for a **better response of the economy to monetary policy impulses**
- However, caution is warranted when assessing the potential impact of reforms. Monetary policy decisions need to be based on hard evidence



# Conclusions

Taxation is relevant for monetary policy

- **Tax changes** can affect the price level  
→ Monetary policy needs to closely monitor second round effects
- **Tax reforms** can help to raise trend growth and facilitate economic adjustment  
→ Conduct of monetary policy may be facilitated, but a central bank must be cautious in evaluating the impact of reforms.