Taxation, tax reform and monetary policy

José Manuel González-Páramo
Member of the Executive Board
European Central Bank
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 (1)**

**Direct taxes**

- **Supply side**: e.g. profit tax ↑, net profit margins ↓, effect on consumer prices? Depends on economic environment, e.g. product market competition

- **Demand side**: e.g. income tax ↑, disposable income ↓, effect on demand for goods and services and consumer prices? Depends on economic environment, e.g. wage bargaining mechanisms

**Indirect taxes**

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Personal income tax</th>
<th>Indirect taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
<td>t+1</td>
<td>t</td>
</tr>
<tr>
<td>Euro area</td>
<td><em>Area-Wide Model</em></td>
<td>−0.05</td>
</tr>
<tr>
<td></td>
<td><em>INTERLINK</em></td>
<td>−0.1</td>
</tr>
<tr>
<td>Spain</td>
<td>(Banco de España model)</td>
<td>−0.07</td>
</tr>
<tr>
<td></td>
<td><em>(QUEST)</em></td>
<td>−0.01</td>
</tr>
</tbody>
</table>

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 ↑ → tax burden ↑ (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 (1)

• **Early literature**: growth exogenous $\rightarrow$ 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 $\rightarrow$ regional mobility  
  • e.g. Tax and benefit systems $\rightarrow$ cyclical unemployment may become structural
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
### Situation in Europe (1)

<table>
<thead>
<tr>
<th>Revenue (as a percentage of GDP)</th>
<th>1960</th>
<th>1980</th>
<th>2000/latest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euro area average</td>
<td>27.1</td>
<td>39.9</td>
<td>44.5</td>
</tr>
<tr>
<td>United States</td>
<td>27.0</td>
<td>30.5</td>
<td>32.9</td>
</tr>
<tr>
<td>Spain</td>
<td>18.7</td>
<td>29.0</td>
<td>39.2</td>
</tr>
</tbody>
</table>

*Source: AMECO and Tanzi and Schuknecht (2000)*
**Marginal tax rate for employees* (2003)**

<table>
<thead>
<tr>
<th></th>
<th>low income</th>
<th>middle income</th>
<th>high income</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU15 average</td>
<td>37.3</td>
<td>39.1</td>
<td>46.9</td>
</tr>
<tr>
<td>US</td>
<td>29.1</td>
<td>29.1</td>
<td>39.1</td>
</tr>
<tr>
<td>Japan</td>
<td>18.7</td>
<td>22.9</td>
<td>32.0</td>
</tr>
<tr>
<td>Germany</td>
<td>51.3</td>
<td>58.0</td>
<td>63.2</td>
</tr>
<tr>
<td>Spain</td>
<td>34.0</td>
<td>30.0</td>
<td>33.0</td>
</tr>
</tbody>
</table>

*Source: OECD Recent tax policy trends and reforms in OECD countries (2004)*

*Income tax plus employee social security contributions less cash benefits*
Chart 8: Change in direct taxes 1960-1990 vs change in employment ratio, 1960s-1990s

\[ y = -1.09x + 12.167 \]
\[ R^2 = 0.4803 \]

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

\[ y = -0.2778x - 0.4569 \]

\[ R^2 = 0.2849 \]

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.
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
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.