Future-proofing fiscal policies: Caution and robustness

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GCEE and IMFS, Frankfurt

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Twobasic principles I want to keep in mind

1. It’s great to know what **optimal** policy is - whether monetary, fiscal or other areas of policy

- Yet it always depends on the view taken how the economy works, the model used, the uncertainties and risks considered …

- Instead, an alternative is to search for and consider (simple) rules that are **robust**, that is, rules that deliver reasonably good performance across a range of “world” views and set boundaries to avoid worst-case outcomes.
Two basic principles I want to keep in mind

2. It’s good to know whether a central authority would be better at running fiscal policy.

- Yet, EU/euro area is a union of sovereign member states held together by treaties. And budgets, taxation and expenditures are central to providing a basis for national political decision making.
- Thus, unless steps towards political union come first, some potential benefits of centralization cannot be realized.
Recent history: Debt to GDP ratios and interest rates can rise sharply and unexpectedly

General government gross debt to GDP ratio
2000 - 2018

10-year government bond yields

Source: Eurostat

Source: Refinitiv Datastream
Long-term interest rates very low in recent years

Reasons
- Monetary policy: forward guidance and quantitative easing
- Decline in medium- or long-term equilibrium interest rates: savings glut/safe assets demand

Fiscal consequences
- Very large interest cost savings, lock-in of low long-term rates
- Debt -GDP ratios stabilized at high levels, in a few cases decline towards or below 60% limit

How long will this situation persist?
Estimates of (medium-run) equilibrium real rate for Germany

Beyer and Wieland (2019, updated): Laubach-Williams /Garnier-Wilhelmsen methodology
Reversal risk of \( r < g \): Non-trivial from a historical perspective

Reversal probability of the interest rate-growth differential in the historical perspective

<table>
<thead>
<tr>
<th>Conditional probability in %: ( r &gt; (\hat{g} + n) )</th>
<th>1870–2016</th>
<th>1946–2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Germany</td>
<td>France</td>
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<tr>
<td>Scenario 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>in 5 years</td>
<td>12.8</td>
<td>11.6</td>
</tr>
<tr>
<td>in 10 years</td>
<td>30.3</td>
<td>30.5</td>
</tr>
<tr>
<td>Scenario 2</td>
<td></td>
<td></td>
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<tr>
<td>in 5 years</td>
<td>44.5</td>
<td>44.3</td>
</tr>
<tr>
<td>in 10 years</td>
<td>50.6</td>
<td>52.1</td>
</tr>
</tbody>
</table>

Sources: Jordà-Schularick-Taylor Macrohistory Database, Jordà et al. (2019), IWF, Refinitiv Datastream, own calculations
Where we stand in terms of monetary policy: Euro area output gap and inflation measures

€ area
Contributions: France Germany Italy Spain Other

Output Gap

Inflation measures

BIP deflator
core HICP

PCE deflator
HICP ex energy

HICP
Taylor rule translates output and inflation gap into interest rate prescription

Rule shown with $r^* = 2\%$

Prescription at or near zero with $r^* = -1$

→ Current ECB policy is already very accommodative, even considering low $r^*$

Further easing is possible: negative rates, QE (corporate bonds, stocks, ..).
Fiscal stimulus and spillovers at zero bound: Simulation of German EERP stimulus in 2 region model

- **Unrestricted monetary policy**
  - %
  - 0.9
  - 0.8
  - 0.7
  - 0.6
  - 0.5
  - 0.4
  - 0.3
  - 0.2
  - 0.1
  - 0
  - -0.1
  - Quarters
  - 1
  - 3
  - 5
  - 7
  - 9
  - 11
  - 13
  - 15
  - 17
  - 20

- **Zero lower bound binding for 8 quarters**
  - %
  - 0.9
  - 0.8
  - 0.7
  - 0.6
  - 0.5
  - 0.4
  - 0.3
  - 0.2
  - 0.1
  - 0
  - -0.1
  - Quarters
  - 1
  - 3
  - 5
  - 7
  - 9
  - 11
  - 13
  - 15
  - 17
  - 20

- **Public consumption**
- Orange

- **Public investment**
- Blue

- **Gross domestic product in Germany**
- Pink

- **Gross domestic product in the rest of the euro area**
- Purple
Can national fiscal stabilization policy make up for loss of monetary policy?

Estimate two regions model of euro area

Region A: countries that typically devalued vs D-Mark prior to EMU.

Region D: countries that maintained stable exchange rate vs D-Mark

Asymmetric shock in region A under four different regimes:
- flexible exchange rate
- unilateral peg
- EMU
- EMU & national stabilization policy (transfers)
EMU & national countercyclical fiscal policy regime comes close to stabilization under flexible rate regime

<table>
<thead>
<tr>
<th>Standard deviation of output gap, inflation and budget balance&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Output gap</th>
<th>Inflation</th>
<th>Budget balance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Region A&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Region D&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Region A&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>Flexible exchange rate&lt;sup&gt;4&lt;/sup&gt;</td>
<td>2.38</td>
<td>2.61</td>
<td>0.96</td>
</tr>
<tr>
<td>Fixed exchange rate (unilateral peg)&lt;sup&gt;5&lt;/sup&gt;</td>
<td>4.73</td>
<td>2.68</td>
<td>1.12</td>
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<tr>
<td>Monetary union</td>
<td>3.05</td>
<td>3.77</td>
<td>0.96</td>
</tr>
<tr>
<td>Monetary union with countercyclical transfer payments&lt;sup&gt;6&lt;/sup&gt;</td>
<td>2.46</td>
<td>2.92</td>
<td>0.91</td>
</tr>
</tbody>
</table>
Central fiscal capacity could lead to persistent net transfers across countries (calculation with historical data)

Cumulative net transfers to the twelve euro area member states as part of a fiscal capacity

<table>
<thead>
<tr>
<th></th>
<th>AT</th>
<th>BE</th>
<th>DE</th>
<th>ES</th>
<th>FI</th>
<th>FR</th>
<th>GR</th>
<th>IE</th>
<th>IT</th>
<th>LU</th>
<th>NL</th>
<th>PT</th>
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<tbody>
<tr>
<td>Arnold et al. (2018)²</td>
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<tr>
<td>1990 – 2017</td>
<td>−2.8</td>
<td>−3.1</td>
<td>−0.7</td>
<td>20.7</td>
<td>3.5</td>
<td>−1.4</td>
<td>29.0</td>
<td>5.8</td>
<td>3.3</td>
<td>0.1</td>
<td>−1.1</td>
<td>9.0</td>
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<tr>
<td>1970 – 2017</td>
<td>−2.6</td>
<td>−0.8</td>
<td>0.7</td>
<td>25.2</td>
<td>3.3</td>
<td>0.7</td>
<td>30.8</td>
<td>7.3</td>
<td>4.2</td>
<td>0.3</td>
<td>0.6</td>
<td>10.0</td>
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<tr>
<td>Beetsma et al. (2018)</td>
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</tr>
<tr>
<td>1995 – 2014</td>
<td>−0.1</td>
<td>−1.2</td>
<td>0.2</td>
<td>0.1</td>
<td>2.3</td>
<td>−0.3</td>
<td>1.7</td>
<td>−5.5</td>
<td>1.1</td>
<td>−10.9</td>
<td>−0.9</td>
<td>1.6</td>
</tr>
</tbody>
</table>

1 – As a percentage of nominal GDP. Time period under investigation determined by availability of data. AT-Austria, BE-Belgium, DE-Germany, ES-Spain, FI-Finland, FR-France, GR-Greece, IE-Ireland, IT-Italy, LU-Luxembourg, NL-Netherlands, PT-Portugal. 2 – Proposal of the International Monetary Fund. Cumulative payouts at the start of each year. Based on the assumption that the fiscal capacity can borrow and lend money on an interest-free basis.

Sources: European Commission, OECD, own calculations
Fiscal rule exceptions
GCEE has a modest proposal for re-focusing the fiscal rules: An expenditure rule with adjustment account

Elements of a reformed expenditure rule

- Nominal expenditure growth ≤ Benchmark + Multi-purpose adjustment account + Debt correction

- Excluding:
  - Interest expenditures
  - Cyclical unemployment expenditures
  - Discretionary revenue measures

- Based on:
  - Potential GDP growth
  - Inflation
  - Calibrated constant

- Capturing:
  - Deviations from structural balance rule
  - Estimation errors of discretionary revenue measures
  - Small deviations in budgetary process

- Relative to distance between debt limit and current debt level

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