OECD published estimates of the output gap (%)

United States

Spain

-10.0
-8.0
-6.0
-4.0
-2.0
0.0
2.0
4.0


Spring 2008

Latest

-10.0
-8.0
-6.0
-4.0
-2.0
0.0
2.0
4.0


Spring 2008

Latest
OECD published estimates of the output gap (%)

**Italy**

**Greece**

Spring 2008

Latest
Raises conceptual & technical issues

- **Conceptual**: No warning signal from inflation, despite build-up of unsustainable imbalances.

- **Technical**: can other information be used to anchor real-time estimates of potential?

=> Can financial variables or capacity utilisation anchor measures of trend output for many OECD countries?
Estimating “finance-neutral” gaps

1) \[ y_t = y_t^* + \beta (y_{t-1} - y_{t-1}^*) + \sum_{j=1}^{J} \alpha_j (x_{jt} - \bar{x}_j) + \varepsilon_t \]

2) \[ \Delta y_t^* = \Delta y_{t-1}^* + \nu_t \]

\( y \) = real GDP, \( y^* \) = potential

\( x_j \) = financial imbalance indicators (real house price growth, real credit growth, real interest rates ... + ?)

Can method of Borio et al. (2013) be applied generally across many countries?
Summary of results: mixed

<table>
<thead>
<tr>
<th></th>
<th>USA, UK, IRL, ESP</th>
<th>GRC, PRT, ITA, JPN, (CAN) + ....</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistical significance of credit &amp; housing imbalance indicators</td>
<td>Yes</td>
<td>Less so, Marginal</td>
</tr>
<tr>
<td>Plausible narrative (pre-crisis over-heating ..)</td>
<td>Yes</td>
<td>Not</td>
</tr>
<tr>
<td>Reduces Real-time revisions</td>
<td>Yes</td>
<td>Not much</td>
</tr>
</tbody>
</table>
(2) Financial variables do anchor output gap estimates for some countries

United States

Spain
(2) But doesn’t work so well for other countries ....
And for some countries generates questionable results: e.g. Canada

- Real short-term interest rates and house price growth as significant financial variables
- => Continuous overheating for last 10 yrs apart from a couple of Qs in 2009 ??
(2) And for some countries generates questionable results: e.g. Japan

- Results very dependent on whether Real credit and house price growth average over long-sample (incl 70s) or shorter sample (form mid-80s)
Can capacity utilisation provide the anchor?

- Not subject to revision, but manufacturing only

- Among a selection of OECD countries, a significant relationship between CU & output gaps found for only about $\frac{1}{2}$ of all countries examined.

- Capacity utilisation (CU) not helpful in explaining real-time output gap revisions ($\beta$ not signif): 

$$\text{GAP}_t = \text{const} + \alpha \text{RTGAP}_t + \beta \text{CU}_t$$
Using capacity utilisation successfully anchors potential output for Italy
but can anchor potential output in the wrong place e.g. USA

Output gap estimates using capacity utilisation

Survey measures of Capacity utilisation
Tentative conclusion: no simple recipe for anchoring trend output

- For countries where financial variables do help anchor $y^*$ is it in the right place does it focus on the last crisis not the next one?

- Same imbalance indicators don’t work for all countries, dependent on choice & period over which averaged

- Capacity utilisation unlikely to work for many countries

- No general recipe that can be followed across many countries to anchor trend output
Selected References


ALTERNATIVE & MORE ROBUST MEASURES OF TRENDS OUTPUT

David Turner, OECD
LINK Meeting October 21-23, 2013