“Twin deficits” in Greece: in search of causality

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Hypothesis

In the period after 1995 the causality between the foreign deficits and the public deficits runs from the former to the latter
Public and External deficits

\[ CAB = X - M + NY + NCT = S - I. \]  \hspace{1cm} (1)

\[ -CAB = NB_P + NB_G \]  \hspace{1cm} (2)
Public and External deficits

\[
CAB = X - M + NY + NCT = S - I. \tag{1}
\]

\[
-CAB = NB_P + NB_G \tag{2}
\]

**Twin deficits;** fiscal deficit \(\mapsto\) external deficit

Two main transmission mechanisms:

1. Loanable funds: *Fiscal Deficit* \(\uparrow\mapsto i \uparrow\mapsto e \uparrow\mapsto CAB \downarrow\)
2. Prices: *Fiscal Deficit* \(\uparrow\mapsto P \uparrow\mapsto CAB \downarrow\)

Criticism through Ricardian equivalence
Public and External deficits

External deficit $\rightarrow$ public deficit

- For reasons exogenous to the fiscal stance of the government the foreign position of the country deteriorates
- Fiscal deficit adjusts to stabilize the economy (automatic stabilizers, active policy decisions)

Necessary condition: a sufficient inflow of foreign capital and ability of the government to borrow at a relatively low interest rate
Resource Gap by Institutional Sector
Hypothesis

In the period after 1995 the causality between the foreign deficits and the public deficits runs from the former to the latter.
Maastricht treaty

- Maastricht treaty, 7 February 1992
- Main criterion “achievement of high degree of price stability”
- Rest of the criteria and institutions of the EMU are built around this target of low inflation
- Monetary, fiscal but also exchange rate policy focus on low inflation
- Seen from that perspective Greece made a serious effort to comply with the rules
Inflation Rate
The 1990’s

- Maastricht treaty
- Removal of controls on long-term capital movements, March of 1993
- Removal of controls on short-term capital movements, May of 1994
- In 1995 the governor of the BoG announced that the main objective of the BoG would be a further decrease in inflation. Towards that goal, the BoG announced for the first time a specific exchange rate target: hard-drachma policy (limit the year-on-year depreciation of the drachma against ECU to 3%)
- Euro, 1 January 2001
Real Effective Exchange Rate
Real Effective Exchange Rate
Real Effective Exchange Rate

- REER15 (HP filter)
- External Financing (RHS, HP filter)
It is common in the Greek economic literature that 1995 is a year that marks a structural break.

“The performance of the Greek economy in the second half of the 1990s contrasts starkly with the performance during 1975-1994” (Bryant, Garganas and Tavlas, 2001)


Bosworth and Kollintzas (2001) reach a similar conclusion from a growth-accounting point of view.
The Greek policy makers were aware of the pressures on the foreign sector of the economy.

They believed in the merits of low inflation, the ability of the market to self-regulate itself and the use of capital inflows for productive purposes etc.
“This rate of growth [of the period 1995-2001] should be sustainable in future years” and that “one might hope that the Greek experience would more closely follow that of Ireland”

Bosworth and Kollintzas (2001)
The fact that both Portugal and Greece are members of both the European Union and the euro area, and the fact that they are the two poorest members of both groups, suggest a natural explanation for today’s current account deficits. They are exactly what theory suggests can and should happen when countries become more closely linked in goods and financial markets. To the extent that they are the countries with higher expected rates of return, poor countries should see an increase in investment. And to the extent that they are the countries with better growth prospects, they should also see a decrease in saving. Thus, on both counts, poorer countries should run larger current account deficits, and, symmetrically, richer countries should run larger current account surpluses.

Blanchard and Giavazzi (2002)
## Econometric results-GC

Table: Granger Causality tests (Toda and Yamamoto, 1995) for different lag lengths and sub-periods

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>1980Q1-1994Q4</th>
<th></th>
<th>1995Q1-2010Q4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Obs</td>
<td>$\chi^2$ Statistic</td>
<td>Prob.</td>
<td>Obs</td>
</tr>
<tr>
<td><strong>2 lags</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$d_t$ does not Granger Cause $n_t$</td>
<td>57</td>
<td>0.298</td>
<td>0.861</td>
<td>64</td>
</tr>
<tr>
<td>$n_t$ does not Granger Cause $d_t$</td>
<td></td>
<td>1.170</td>
<td>0.557</td>
<td>11.903</td>
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<tr>
<td><strong>3 lags</strong></td>
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<td></td>
</tr>
<tr>
<td>$d_t$ does not Granger Cause $n_t$</td>
<td>56</td>
<td>0.746</td>
<td>0.862</td>
<td>64</td>
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<tr>
<td>$n_t$ does not Granger Cause $d_t$</td>
<td></td>
<td>0.685</td>
<td>0.877</td>
<td>10.819</td>
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<tr>
<td><strong>4 lags</strong></td>
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<td></td>
</tr>
<tr>
<td>$d_t$ does not Granger Cause $n_t$</td>
<td>55</td>
<td>3.597</td>
<td>0.463</td>
<td>64</td>
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<tr>
<td>$n_t$ does not Granger Cause $d_t$</td>
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<td>3.561</td>
<td>0.469</td>
<td>11.747</td>
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</tbody>
</table>
Econometric results-VECM

Table: Estimation results for different sub-periods

<table>
<thead>
<tr>
<th></th>
<th>1980Q1-1994Q4</th>
<th>1995Q1-2010Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>d</td>
</tr>
<tr>
<td>The cointegrating relations $\beta$</td>
<td></td>
<td></td>
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<tr>
<td>$\beta$</td>
<td>1.00</td>
<td>-0.17</td>
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<tr>
<td></td>
<td>[-0.96]</td>
<td>[1.39]</td>
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<tr>
<td>The adjustment coefficients $\alpha$</td>
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<td></td>
</tr>
<tr>
<td>$\alpha$</td>
<td>-0.51</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>[-3.05]</td>
<td>[0.78]</td>
</tr>
</tbody>
</table>

|                | n  | d   | c   | t  | n  | d   | c   | t  |
| The cointegrating relations $\beta$ |                |                |                |                |                |                |                |                |
| $\beta$        | 1.00 | -0.34 | 2813.66 | —     | 1.00 | 1.20 | 4716.16 | —     |
|                | [-1.91] | [15.42] |                |                | [6.33] | [16.17] |                |                |
| The adjustment coefficients $\alpha$ |                |                |                |                |                |                |                |                |
| $\alpha$       | -0.36 | 0.07 |                | -0.01 | -0.23 |                | [-0.30] | [-4.97] |
|                | [-2.29] | [1.78] |                |                |                |                |                |                |
Conclusion

- We analyzed the causal relationship between the Greek public and external deficits
- Hypothesis: Causality changed due to the monetary unification and the adoption of the Euro
- Policy implications: a solution to the imbalances in the Greek economy must start from an improvement of the external sector
Thank you!