The EU Fiscal Compact for Italy. A preliminary analysis using DANTE.

Leonardo Ghezzi
УВОЖУ К ОТВЕРЖЕННЫМ СЕЛЕНЬЯМ,
Я УВОЖУ СКВОЗЬ ВЕКОВЕЧНЫЙ СТОН,
Я УВОЖУ К ПОГИБШИМ ПОКОЛЕНЬЯМ.
PART I
DANTE, something about my personal toy
DANTE is a multisectoral model
- 37 industries
- 54 products
- Supply and Use Tables (industry-by-industry; industry tech)
- I developed also an aggregate version

DANTE is an econometric model
aggregate version: 74 behavior eq. (demand block; prices block; supply block; income/tax block)
134 identities
disaggregate version: sectoral reg (investment; household consumption; productivity)
aggregate reg (Total Consump.)
DANTE is a multiregional model
- 20 Italian regions collapsed in 3 regions
- 54 bilateral trade matrices (by products) → 37 (by sector)
- Regional gravity model
Households Consumption Block

- Aggregate consumption equation
- Total consumption
- Relative prices
- PADS
- Population
- Expenditures by product
Aggregate equation

LCH - Modigliani

\[ \text{SEE} = 0.01 \quad \text{RSQ} = 0.7261 \quad \text{RHO} = 0.16 \quad \text{Obser} = 29 \quad \text{from 1982.000} \]

\[ \text{SEE+1} = 0.01 \quad \text{RBSQ} = 0.6513 \quad \text{DW} = 1.67 \quad \text{DoFree} = 22 \quad \text{to 2010.000} \]

\[ \text{MAPE} = 171.41 \]

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Reg-Coef</th>
<th>Mexval</th>
<th>Elas</th>
<th>NorRes</th>
<th>Mean</th>
<th>Beta</th>
<th>t-value</th>
<th>F-Stat</th>
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<tbody>
<tr>
<td>0 d_RCER_TUS</td>
<td>-</td>
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<td>-</td>
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<td>1 intercept</td>
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<td>1.02</td>
<td>3.65</td>
<td>1.00</td>
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<tr>
<td>2 d_YDR_TUS</td>
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<td>-0.23769</td>
<td>24.9</td>
<td>0.04</td>
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<td>-0.00</td>
<td>-0.431</td>
<td>-3.507</td>
<td>10.33</td>
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</table>

ld consumption expenditure (short run), re

Some features:
1) I introduced dummy var. to control for specific events (sales incentive 97-98);
2) For some durables I used the lagged value of the stock;
3) For some other durables I used the real interest rate:

Sectoral equations

PADS - Almon

Predicted Actual
Income elasticity: 1.52 (1.27)
Price elasticity: -0.79 (-1.17)
Stock elasticity: -0.09
Error: 4.6%
TV, Radio and personal computer

Income elasticity: 1.67 (1.87)
Price elasticity: -0.91 (-0.14)
Error: 5.9%
Bar and Restaurants

Income elasticity:  1.45  (1.03)
Price elasticity:  -1.29  (-0.15)
Error: 3.0%
Labor Productivity Block

Aggregate equation

\[ \Delta y_l = f\left(\Delta \frac{k}{l}, \Delta Q\right) \]

Sectoral equations

Kaldor-Verdoorn Approach
Labour Productivity Block

"Food products, beverages and tobacco"

Predicted vs. Actual

5 "Textiles and textile products"

![Graph showing predicted and actual labor productivity for textiles and textile products from 1985 to 2010.]
Basic metals and fabricated metal product
Labour Productivity Block

inery, Electrical and Transport equipment

Predicted vs. Actual
PART II
Let’s play ...
One currency ... many different tax policies, many different public expenditures decisions ... the coordination is a problem

   Public Deficit/GDP  < 3%  (otherwise sanctions)
   Public Debt/GDP  < 60%  (otherwise ... no playstation for 1 week)

1997 – 2012 many different release of this Treaty

2012: In January, The European Council approved the Fiscal Stability Treaty (except UK and Ceck Republic) in order to obtain a better fiscal coordination.

Up to now: 21 National Parliament ratified the new Treaty
The new Treaty (entered in force on 1° Jan 2013) is a stricter version of the previous one (SGP).

It contains 3 titles regarding rules for the European Union organization and coordination. The Title n.III is called “Fiscal Compact”

**Balanced budget rule:** General government budgets shall be "balanced" or in surplus

**Debt brake rule:** Member States whose government debt-to-GDP ratio exceeds the 60% reference level, shall reduce it.

Starting when? … the year after the abrogation of EDP (for all the countries with an ongoing EDP) … for Italy should be 2014
Some informations about Italy

Public Deficit/GDP

<table>
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<tr>
<th>Year</th>
<th>Public Deficit/GDP</th>
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<tr>
<td>1980</td>
<td>12.3</td>
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<td>1985</td>
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<td>1990</td>
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<td>2000</td>
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<td>2005</td>
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<td>2010</td>
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PA_VINC2
Some informations about Italy

Primary surplus
(millions of euro)

PA_SPRIM
Some informations about Italy

Public Debt/GDP

PA_VINC1
Some informations about Italy

Interests paid by Public Administration

Level (million of euro)

% of GDP (0.1=10%)
## Main exogenous variables

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<tr>
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<td>1.30</td>
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<td>GCE (nominal)</td>
<td>-1.5%</td>
<td>0.0%</td>
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<td>Trade_RoW</td>
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<td>8.0%</td>
<td>10.0%</td>
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<tr>
<td>Trade_UEM</td>
<td>-0.1%</td>
<td>2.5%</td>
<td>3.5%</td>
<td>3.7%</td>
<td>4.3%</td>
<td>4.7%</td>
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<td>IPUB</td>
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<tr>
<td>Import price</td>
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<td>Wage in Pub.Adm.</td>
<td>-0.2%</td>
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Main endogenous results

Households consumption
Annual % change (real terms)

GDP
Annual % change (real terms)
Main endogenous results

Balanced budget rule

Debt brake rule

forecast: baseline
Public Administration Expenditures (Nominal term) and Prices.

Annual % change

forecast: baseline
forecast: alternative scenario

Red line: baseline scenario
Blue line: GFI+(1% of GDP) scenario
Green line: GFI+(1.5% of GDP) scenario
Time-series specification for PADS

\[ x_i(t) = \left[ a_i(t) + b_i \left( \frac{y}{P} \right) \right] \cdot \left( \frac{p_i}{P} \right)^{-\lambda_0} \cdot \prod_{k=1}^{n} \left( \frac{p_i}{p_k} \right)^{-\lambda_k \cdot s_k} \cdot \left( \frac{p_i}{P_G} \right)^{-\mu_G} \]

Income term \hspace{2cm} Price term

See:
