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“Towards a better governance in the EU?”
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The Euro Plus Pact: Competitiveness and External Capital Flows in the EU Countries

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Joint with Hubert Gabrisch, IWH, Halle, Germany

All viewpoints personal!
Next 20 minutes

1. The Euro Plus Pact
2. Briefly on the literature
3. Data
4. Granger causality tests
5. VAR models
6. Final comments

Gabrisch & Staehr (2012)
- Working Papers of Eesti Pank, no. 5/2012
- IOS Working Paper, no. 324
1. The Euro Plus Pact

- Late 2010 → *Pact of competitiveness*
- Early 2011 → *Pact for the euro*
- Adopted on 25 March 2011 → *Euro Plus Pact*

Euro Plus Pact → countries are crisis countries because of weak competitiveness!

Competitiveness ↓ (e.g. Unit Labour Cost = ULC ↑)
⇒
“Deterioration” of Current Account balance, CA ↓
⇒
Crisis in case of financial shock

Gros (2011, p. 1):

*The (relative) unit labour costs of GIP(S) countries Greece, Ireland, Portugal and Spain have increased: this is the fundamental cause of their problems as export performance must have been bad, pushing them into current account deficits.*
**Figure:** Unit Labour Costs relative to euro area average, 1998 = 100

Note: ULC is computed as the ratio between compensation per employee and real GDP per employed person

*Source: European Commission*
This paper → is the implied / assumed direction of linkage/“causality” correct?

▪ Does improved competitiveness reduce financial imbalances?

▪ Does relative ULC ↓ ⇒ current account ↑?
  ▫ Time-based identification of direction of linkage… 😊
2. Briefly on the literature

Discussion of Euro Plus Pact

Mostly commentaries / blogs from spring and summer 2011

Gros & Alcidi, Gros (Eurointelligence), Schiliro, Wyplosz

- How to measure competitiveness?
  - Why not start ULC index series in 1992?
  - $\text{ULC} \uparrow$ if more attractive product 😊
- Levels vs. changes in ULC?
- Adjustment by deficit countries vs. surplus countries
- Urgent crisis, but slow-working instruments
Linkages between capital flows and competitiveness

**Competitiveness ↓ ⇒ current account balance ↓**

*Theory*

Real exchange rate appreciation / ULC ↑ / competitiveness ↓ ⇒ NX ↓ ⇒ current account ↓
- Marshall-Lerner
- *j*-curve

*Empirics [← many studies of Marshall-Lerner condition]*


CA ↓ (capital inflow) ⇒ Competitiveness ↓

Theory

- Capital inflow ⇒ demand for non-traded products ↑ ⇒ wages etc. ↑ ⇒ unit labour costs ↑ / real exchange rate appreciation [← “demand story”]
  - The transfer effect ⇒ the transfer paradox, cf. of post-WWI reparation recipients 😐
  - Dutch disease ⇒ foreign exchange earnings ↑ ⇒ real exchange rate appreciation

Empirics [← many papers, in particular for emerging markets]


- Bakardzhieva et al. (2010): “The impact of capital and foreign exchange flows on the competitiveness of developing countries”, IMF WP/10/154
3. Data

Panel
- 27 EU countries
- Annual data 1995-2011

Notation
- \(\text{RULC} = \text{Relative Unit Labour Costs (in euro, relative to EA12 average)}\)
  - \(\text{RULC} \uparrow \Rightarrow \text{competitiveness} \downarrow\)
- \(\text{GRULC} = \text{percentage Growth in Relative change in Unit Labour Cost}\)
  - \(\text{GRULC} > 0 \Rightarrow \text{competitiveness} \downarrow\)
- \(\text{CA} = \text{Current Account balance in percent of GDP}\)
  - \(\text{CA} < 0 \Rightarrow \text{negative current account balance} \Rightarrow \text{capital inflow}\)
- \(\text{DCA} = \text{Difference in Current Account balance in percent of GDP}\)
  - \(\text{DCA} < 0 \Rightarrow \text{“deterioration” of current account balance} \Rightarrow \text{capital inflow} \uparrow\)

"Preparations"
- \(\text{GRULC, DCA} \Rightarrow \text{panel stationary in sample 1997-2011 😊}\)
  - \(\text{CA} \Rightarrow \text{borderline case} \left[ \leftarrow \text{use DCA in baseline regressions} \right]\)
Figure: Changes in competitiveness vs. changes in capital inflows (EU27)
4. Granger causality tests

Which direction of linkage/“causality”? → Granger causality

Questions
- Does DCA Granger-cause GRULC? → does lagged DCA help explain GRULC?
- Does GRULC Granger-cause DCA? → does lagged GRULC help explain DCA?

Estimations (1 year lag)
- \[ \text{DCA} = \alpha_0 + \alpha_1 \text{DCA}(-1) + \alpha_2 \text{GRULC}(-1) + \varepsilon_{\text{CA}} \]
- \[ \text{GRULC} = \beta_0 + \beta_1 \text{GRULC}(-1) + \beta_2 \text{DCA}(-1) + \varepsilon_{\text{GRULC}} \]

\[ \text{GRULC} \not\Rightarrow \text{DCA} \text{ if } H_0: \alpha_2 = 0 \text{ cannot be rejected} \]
- \[ \text{DCA} \not\Rightarrow \text{GRULC} \text{ if } H_0: \beta_2 = 0 \text{ cannot be rejected} \]
Panel data estimations
- Few observations along time dimension
- “Average effect” across EU countries 😊

NB1: Few observations along time dimension → 1 and 2 year lags
NB2: Most often → country fixed effects

Clustered standard errors in ( )-brackets, $p$-values in [ ]-brackets
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<td>(0.046)</td>
<td>(0.057)</td>
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“Wrong sign”
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<td><strong>Granger</strong></td>
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Summary of results of Granger causality tests

- No effect from GRULC(-1) to DCA
- Effect from DCA(-1) to GRULC
  - Sign “correct” \( \rightarrow \) DCA ↓ \( \Rightarrow \) GRULC ↑
  - Magnitude reasonable (-0.4 to -0.6)
- Robustness \( \rightarrow \) similar but slightly less “clear” results with CA
5. VAR models

Advantages
- Model dynamic linkages between endogenous variables
- Allow contemporaneous effects

Panel Vector AutoRegressive models → GRULC, DCA ~ I(0)

Results
- Estimates from GRULC to DCA (violet) → small and statistically insignificant
- Estimates from DCA to GRULC (orange) → larger (in numerical terms) and statistically significant

Country fixed effects
**Table 4: Estimation of panel VAR models, GRULC and DCA**

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<td><strong>$R^2$</strong></td>
<td>0.129</td>
<td>0.219</td>
<td>0.042</td>
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NB: Estimates like (2.4)-(3.4), (2.5)-(3.5) and (2.6)-(3.6), but standard errors not clustered
Impulse responses…

Problem $\rightarrow$ identification!

a) No contemporaneous effects (over-identification)

b) Contemporaneous effect from DCA to GRULC, but not the other way (Cholesky orthogonalisation)

c) Contemporaneous effect from GRULC to DCA, but not the other way (Cholesky orthogonalisation)

Impulse responses with $+/−$ 2 S.E. confidence interval
Figure 2: a) Over-identification → no contemporaneous effects

(a) Non-factorised innovations
Figure 3: b) Contemporaneous effect from GRULC to DCA, but not the other way

(b) Cholesky decomposition, only contemporaneous effects from GRULC to DCA

If negative effect (“correct sign”), then small and short-lived
Figure 3: c) Contemporaneous effect from DCA to GRULC, but not the other way

(c) Cholesky decomposition, only contemporaneous effects from DCA to GRULC
Results

- Competitiveness $\uparrow \Rightarrow$ capital inflow / current account 0
  - Possible “wrong” effect (non-Euro Plus Pact) in 2-3 years perspective $\Rightarrow$ confidence effect?
- Capital inflow $\uparrow \Rightarrow$ competitiveness 2-3 year $\downarrow$ 😊

Robustness
- Without country fixed effects
- EA12, CEE
- Sample shortening (not so strong for EA12…)
- CA level (but results of CA $\uparrow$ on GRULC less clear…)
6. Final comments

Summary

- No / few signs of effect from competitiveness to current account balance
- Effect from current account balance to competitiveness
  - Increased capital inflow $\Rightarrow$ real exchange rate appreciation in the short term

Policy implications

- Competitiveness “very endogenous” variable
  - Why focus on competitiveness if capital flows are the concern
- Euro Plus Pact $\Rightarrow$ the cart in front of the horse
  - Focus or diversion?
- Euroframe conference $\Rightarrow$ “Towards a better governance in the EU?” $\Rightarrow$ tjooo….