Discussion of “Non-linear growth effects of financial development: Does financial integration matter?” (by Brezigar-Masten, Coricelli and Masten)

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At a First Sight

- Nice paper...
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Less work for the discussant
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...or not?
Outline

- Brief summary: aim, methodologies and findings
- Quick comments on the paper
- Hints: What to do next
A Brief Summary: the Aim

The Focus: Europe after the Mid-90s (EU-15 + CEE + others)

The Question(s)

1. Does Financial Development (FD) affect GDP growth?
2. Is it a Non-Lineral relationship?
3. Does International Financial Integration (IFI) play a role?
4. Do Macro and Micro data tell the same story?
A Brief Summary: Macro-data

Data

1. 31 countries, annual observations between 1996 and 2004
2. FD proxied by stock mkt cap + bank credit and bank credit only
3. IFI proxied by 6 *de facto* measures:
   - gross external positions
   - external liabilities
   - gross FDI, FDI liabilities
   - gross debt+equity, debt+equity liabilities
Methodologies

1. Dynamic panel analysis: Arellano and Bond (1991), only 1 equation for GDP growth

\[ \Delta y_{it} = \rho \Delta y_{it-1} + \beta IFI_{it} + \gamma' X_{it} + \delta_t + u_{it} \]

2. Heterogeneous effect across Transition vs Non-Transitions countries

\[ \Delta y_{it} = \rho \Delta y_{it-1} + \theta IFI_{it} \times D_{trans} + \zeta IFI_{it} \times D_{ntrans} + \gamma' X_{it} + \delta_t + u_{it} \]

3. Threshold in FD \((k)\) for the effects of IFI

\[ \Delta y_{it} = \rho \Delta y_{it-1} + \beta IFI_{it} + \mu IFI_{it} \times D_k + \gamma' X_{it} + \delta_t + u_{it} \]

4. Threshold in FD \((k)\) for the effects of FD
Results:

1. **Financial Development:**
   - No effect on GDP growth overall
   - Effective (+) at intermediate values (90 to 170 % of GDP)

2. **International Financial Integration**
   - No effect on GDP growth overall
   - Effective (+) in Transition countries, not elsewhere
   - Effective (+) when FD is intermediate (90 to 160 % of GDP)
   - In Transition countries: FDI more effective than Debt + Portfolio Equity component
A Brief Summary: Micro-data

Data and methodologies

1. Firm-level data aggregated at 3-digit industry level: 26 industries, 30 countries, 1996-2003 annual

2. Rajan and Zingales (1998), RZ, to account for industry external financing need (US→exogenous)

3. Fisman and Love (2003), FL, to account for industry trade credit reliance (US→exogenous)

4. Estimate the effect of FD accounting for RZ and FL

5. Allow for heterogeneity across Trans countries and the rest of the sample

6. Threshold estimations for FD
Results

1. FD is beneficial in Trans countries, especially in financially more dependent sectors ($FD \times RZ \times D_{trans}$)

2. Financial intermediaries are substitutes for trade credit

3. No effect of FD if this substitutability is not taken into account

4. FD is beneficial as long as it keeps below 53% of GDP
On the macro-data part:

- Why only Difference and not System GMM? System GMM can account for country fixed effects and suffers less from weak instruments (see Blundell and Bond, 1998)
- Why don’t you differenciate also the other regressors, (as usual in DPD growth regressions)?
- Which and how many country-year pairs fall in the “effective area”: only “upper” Trans countries?
On the macro-data part (cont’d):

- What’s the role of external Debt positions? (as opposed to Equity and FDI)
- FD is never significant in Table 1, but has positive effect within the 90-170% band
  IFI is always significant for Trans countries in Table 1, and has positive effect where FD is in the 90-160% band
  How do you explain this?
- Further investigation on the IFI-FD nexus would help
On the micro-data part:

- Why consider IFI in the Macro-data and not in Micro-data? This kind of makes the paper taste like two distinct papers: the title fits better the macro part...

- The coefficient for \( FD \times FL \times D_{trans} \) loses significance once stock market cap is taken out of FD (in column 5 of Table 2): does it mean that stocks are better substitute of trade credit than bank credit? (sounds strange)

- The coefficient for \( FD \times FL \) may lose significance and even change sign for FD larger than 53% (in Table 3): it seems to contradict the results for \( FD \times FL \times D_{trans} \) (Table 2 columns 4 and 5). Did you do more robustness checks?
What’s next? a few hints (of my own interest)

On the macro side:

1. Explore the link between IFI and FD, especially in the Transition countries
2. Use also *de jure* indicators of International Financial Liberalization, following a diff-in-diff approach
3. Several reforms, not only in the financial markets took place in Trans countries from the mid-90s: can account for those?
4. Threshold effects in IFI?
5. Different effects of FD and IFI on TFP vs Investments within Europe? (see Bonfiglioli, 2008 on a different sample)
On the micro side

1. Re-introduce IFI in the micro-data analysis, also multiplied by RZ and FL (see Vlachos and Waldenstrom, 2005)

2. Re-do the estimations on time subsamples. The role of trade credit and financial intermediaries may vary over time not only because of FD

3. Look at Capital, Labor and Real Wages at the industry level using all disaggregated measures of IFI (see Henry and Sasson, 2008, and Levchenko et al., 2008)
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