Exchange rate undervaluation, economic institutions and export performance: evidence from firm-level data

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The paper

Firm-level data for 4 countries from 2003 (or 2006, or 2008) to 2010.

Impact of REER undervaluation on intensive and extensive margins of exports.

Results:
- Intensive margin: positive but non-linear impact of undervaluation; undervaluation can act as a substitute for bad institutions (time to export)
- Number of markets: positive, non-linear impact of undervaluation for large and medium firms; positive effect of time to export for small firms.
- Number of products: no impact of time to export.

(i) is time to export a fixed or a variable variable cost?
(ii) impact of REER on the number of firms?
Measure of undervaluation

(a) Egypt

(b) Jordan

Source: CEPII-EQchange.
Measure of undervaluation

Is the REER (based on CPI) a good proxy for competitiveness in these countries?

Oil price (Brent, in USD), source: FRED.

Source: CEPII-EQchange.
Econometric methodology

\[ \ln(\text{ExpMRG}_{ijt}) = \beta_0 + \beta_1 \ln(\text{GDPcap}_{it}) + \beta_2 \ln(\text{Pop}_{it}) + \beta_3 \ln(\text{GDPcap}_{jt}) + \beta_4 \ln(\text{Pop}_{jt}) + \beta_5 X_{ij} + \beta_6 (\text{Time to exp}_{it}) + \beta_7 \text{Underval}_{-1} + \beta_8 (\text{Underval}_{-1})^2 + \gamma f + \epsilon_{ijt} \]  

(2)

→ Deviations of firm-level exports in the time and market dimensions

Questions:
• Time fixed effects? (2009!) \( ij \) fixed effects (rather than \( X_{ij} \) controls)?
• Why both GDP per capita and population?
• Is GDPcap in current dollars?
• No time-varying explanatory variable at firm level?
• No \( ijt \) control? (bilateral RER, import tariffs)
• \( jt \) controls could be replaced by \( jt \) fixed effects
• Extensive margins: what when \( \text{NumDest}_{fijt} \) or \( \text{NumProd}_{fijt} = 0 \)? PPML? Probit model?
Orders of magnitude
(intensive margin, model 1)

Impact of undervaluation
• All: 10% undervaluation $\rightarrow +0.17\%$ on exports; 50% undervaluation $\rightarrow 0.4\%$
• Small: 10% undervaluation $\rightarrow +0.34\%$ on exports; 50% undervaluation $\rightarrow 1.69\%$

$\rightarrow$ Non-monotonic?
$\rightarrow$ Trade-off with purchasing power?

Impact of institutions (days to export)
• All: 10% additional days to export (+2) $\rightarrow -5.7\%$ on exports
• Small: 10% additional days $\rightarrow -3.61\%$ on exports

$\rightarrow$ Can undervaluation substitute for weak institutions?