Some comments on

International Banking and Liquidity Risk: Lessons from across countries

by C. Buch and L. Goldberg

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The views expressed in this paper are those of the author and do not necessarily reflect the views of Goldman Sachs.
Outline

- Much praise
- A few observations
  - Identification
  - Macroeconomic dimension
  - Endogeneity of structure of international banks
Identification

• Cross-sectional variation in bank behaviour is attributable to supply factors (i.e. bank behaviour)

• But customer base of ‘international’ bank may be systematically different from those of a more ‘domestic’ bank ...
Type of bank

• Nature of ‘international’ bank ...
  – Customer base?
  – Ownership?
  – Legal structure (branches, subsidiaries)?

• Study of Argentina in run-up to the 2001 crisis

• Data on individual banks available
  (cf. Calomiris and Powell, 2000)

<table>
<thead>
<tr>
<th>Random effects</th>
<th>Total real lending growth</th>
<th>Peso-denominated real lending growth</th>
<th>Dollar-denominated real lending growth</th>
<th>Dependent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=128, T = 46</td>
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</tr>
</tbody>
</table>

### Panel A: Sensitivity to developments in currency risk

- \((\hat{r} - \hat{r}^H)\)
  - \(-0.193 (0.168)\)
  - \(-0.257 (0.305)\)
  - \(-0.208 (0.245)\)

- \((\hat{r} - \hat{r}^H) \times \text{foreign-owned}\)
  - \(-0.104 (0.266)\)
  - \(-0.044 (0.464)\)
  - \(0.212 (0.391)\)

- \((\hat{r} - \hat{r}^H) \times \text{public national}\)
  - \(0.194 (0.872)\)
  - \(0.457 (1.581)\)
  - \(-0.286 (0.946)\)

- \((\hat{r} - \hat{r}^H) \times \text{public provincial}\)
  - \(0.610 (0.311)\)
  - \(0.642 (0.565)\)
  - \(0.791 (0.460)\)

- \((\hat{r} - \hat{r}^H) \times \text{private coop.}\)
  - \(0.387 (0.618)\)
  - \(0.448 (1.121)\)
  - \(0.389 (0.913)\)

- \((\hat{r} - \hat{r}^H) \times \text{foreign subsidiary}\)
  - \(0.883 (0.305)\)
  - \(-0.765 (0.552)\)
  - \(1.250 (0.423)\)

- \((\hat{r} - \hat{r}^H) \times \text{savings bank}\)
  - \(0.729 (0.427)\)
  - \(0.876 (0.774)\)
  - \(0.506 (0.650)\)

- \((\hat{r} - \hat{r}^H) \times \text{foreign fin comp.}\)
  - \(0.018 (0.414)\)
  - \(0.134 (0.710)\)
  - \(0.794 (0.511)\)

- \((\hat{r} - \hat{r}^H) \times \text{dom. fin comp.}\)
  - \(0.147 (0.367)\)
  - \(0.282 (0.665)\)
  - \(0.314 (0.542)\)
<table>
<thead>
<tr>
<th>Random effects</th>
<th>Total real lending growth (1)</th>
<th>Peso-denominated real lending growth (2)</th>
<th>Dollar-denominated real lending growth (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=128, T = 46</td>
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</table>

**Panel B: Sensitivity to developments in country risk**

<table>
<thead>
<tr>
<th>Term</th>
<th>Total real lending growth</th>
<th>Peso-denominated real lending growth</th>
<th>Dollar-denominated real lending growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>$(\bar{\Delta}_H^S - \bar{\Delta}_F^S)$</td>
<td>-0.111 (0.196)</td>
<td>-0.295 (0.355)</td>
<td>-0.020 (0.287)</td>
</tr>
<tr>
<td>$(\bar{\Delta}_H^S - \bar{\Delta}_F^S) \times \text{foreign-owned}$</td>
<td>-0.093 (0.302)</td>
<td>-0.002 (0.527)</td>
<td>-0.215 (0.443)</td>
</tr>
<tr>
<td>$(\bar{\Delta}_H^S - \bar{\Delta}_F^S) \times \text{public national}$</td>
<td>-0.017 (0.986)</td>
<td>-0.271 (1.787)</td>
<td>0.384 (1.072)</td>
</tr>
<tr>
<td>$(\bar{\Delta}_H^S - \bar{\Delta}_F^S) \times \text{public provincial}$</td>
<td>-0.541 (0.355)</td>
<td>-0.475 (0.644)</td>
<td>-0.791 (0.524)</td>
</tr>
<tr>
<td>$(\bar{\Delta}_H^S - \bar{\Delta}_F^S) \times \text{private coop.}$</td>
<td>-0.222 (0.698)</td>
<td>-0.254 (1.264)</td>
<td>-0.234 (1.031)</td>
</tr>
<tr>
<td>$(\bar{\Delta}_H^S - \bar{\Delta}_F^S) \times \text{foreign subsidiary}$</td>
<td><strong>-0.749 (0.352)</strong></td>
<td><strong>-0.113 (0.633)</strong></td>
<td><strong>-1.119 (0.487)</strong></td>
</tr>
<tr>
<td>$(\bar{\Delta}_H^S - \bar{\Delta}_F^S) \times \text{savings bank}$</td>
<td>-0.473 (0.514)</td>
<td>-0.529 (0.931)</td>
<td>-0.324 (0.759)</td>
</tr>
<tr>
<td>$(\bar{\Delta}_H^S - \bar{\Delta}_F^S) \times \text{foreign fin comp.}$</td>
<td>0.080 (0.471)</td>
<td>0.388 (0.807)</td>
<td>0.852 (0.580)</td>
</tr>
<tr>
<td>$(\bar{\Delta}_H^S - \bar{\Delta}_F^S) \times \text{dom. fin comp.}$</td>
<td>-0.070 (0.415)</td>
<td>-0.386 (0.754)</td>
<td>-0.037 (0.614)</td>
</tr>
</tbody>
</table>

Macroeconomic context

- Role played by macroeconomic factors
  - Exchange rate regime
  - Current account
  - External debt, NIIP

- Exceptional nature of the sample period covered in the study

- Role played by euro area countries
Liquidity shocks

Post-Lehman symmetric liquidity shock

Asymmetric convertibility risk shock

Source: Bloomberg
TARGET 2 balances

Source: National central banks
Euro area experience

- Study of bank balance sheets during financial crisis
- Aggregate data – distinguish among domestic, intra-Euro area and non-Euro area counterparties
- Counterfactual exercise – estimate model in pre-crisis data and compare data with model simulations
Liabilities
Source: Colangelo et al. (2014). “Cross-border transactions in the euro area and the financial crisis”.
Liquidity between domestic banks broadly in line with pre-crisis regularities

Source: Colangelo et al. (2014). “Cross-border transactions in the euro area and the financial crisis”.
Liquidity between foreign banks (whether intra or extra euro area) declines significantly.

Source: Colangelo et al. (2014). “Cross-border transactions in the euro area and the financial crisis”.
Deposits of firms and households in M3

Deposits of firms and households out of M3

Government Deposits

Deposits of domestic MFI

Deposits of non-resident intra-euro area MFIs

Other euro area wholesale deposits

Deposits of non-resident extra-euro area MFIs

Debt securities

Impact on lending capacity managed by recourse to Eurosystem operations

Source: Colangelo et al. (2014). “Cross-border transactions in the euro area and the financial crisis”.

Assets
Source: Colangelo et al. (2014). “Cross-border transactions in the euro area and the financial crisis”.
On the asset side, we see not only counterparts to re-nationalisation of funding, but also re-segmentation of sovereign holdings.
Endogeneity

• International banks and regulatory environment will respond to events (and to each other)
  – Subsidiarisation rather than branching
  – Ensuring access to liquidity facilities
  – Cross-border M&A / consolidation in response to banking union