“The Great Lockdown: pandemic response policies and bank lending conditions”

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Discussed by Catherine Casanova (SNB)
CGFS Conference 2022
Outline

Did policy measures in the euro area (EA) affect bank capacity to lend after the Covid shock?
Did the joint implementation of measures amplify their impact?

Focus
ECB’s liquidity-providing operations (TLTROs)
Capital relief (macro- and micro-prudential buffers)

Find
• Policies had a significant standalone impact on bank capacity.
• Complementarities between funding and preservation of bank capital for loan origination.
• Real effects: TLROs + capital relief increased firm employment.

Overall impression
• Very topical and relevant paper
• Fantastic data: granular and cross country.

Comments
• Conceptually
  • Different phases
  • Capacity + Willingness
• Technical: general + specific

Claimed Contribution
For EA, first to analyse monetary policy measures taken after Covid shock.
Conceptual Comment I: Phases of lending in EA
(Falargiarda and Köhler-Ulbrich, 2021)

Phase 1 (March-June 2020)
- Surge in demand for liquidity => credit lines, short-term loans
- Historically low rates and favourably lending conditions
- Policy measures:
  - March: PEPP, TLTRO II
  - April: eased collateral requirements and national guarantee schemes, moratoria
  - June: regulatory relief

Phase 2 (June-December 2020)
- Liquidity needs abated
- Tighter credit standards, partly counteracted by policy support
- Key role of guarantee schemes
- Medium and long-term loans

=> Does this match your findings: increase in Q3+Q4?
Conceptual comment II: incentives and interactions of measures

**Capacity**

Liquidity + Regulatory relief  
*(EA level)*

**Willingness + incentives to lend?**

=> Creditworthiness

**Fiscal measures**  
*(national level)*

- Eg guarantees
  - liquidity
  - low RWs
  - avoid other loan defaults

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**Diagram:**

- **ECB/ESRB**
- **Bank**
  - Real Economy: FR
  - Real Economy: IT
  - Real Economy: PT
Conceptual comment II: incentives and interactions of measures

⇒ **correlation** between lending and fiscal measures (*national level*)
⇒ **heterogeneity** across countries

**Size of loan guarantees**

**Uptake of moratoria**

**Lending growth**

**Corporate lending growth**

Notes: Change in NFC gross bank debt ratio (cumulated gross bank debt per firm divided by last available firm balance sheet total) from Feb. 2020 to Feb. 2021 on x-axis. Reported uptake of moratoria for Q1 2021 (field 2.5.10) over 2019 GDP on y-axis. Based on 18 EA countries (CY is excluded). There are gaps in the data reported and results should be interpreted with caution. The underlying granular AnaCredit data still have quality issues and all results should be considered experimental first evidence.
Technical Comments: General

• Large banks operate in several EA countries

• Same set of banks for the different analyses

• Coordinated policies => joint analysis, focus on interactions

• Fine-tuning of the analysis, exploit data granularity
  • TLTROs + guarantees => firm lending (not mortgages)
  • Moratoria + regulatory relief => firm and HH lending
Technical Comments, specific

Specification (1)
- Local projection methods require \textit{lags} of the LHS variable.

\[
\Delta L_{i,t+h} = \alpha_{c,t,h} + \beta_{h}^{T}\text{TLTRO uptake}_{t} + \Gamma_{h}^{T}X_{i,t-1}^{T} + \epsilon_{i,t+h}^{T}
\]  

- Both panels in Fig 6 are \textit{not comparable}.
  - Post pandemic, you just have 10 months of observations, so basically the $h=10$ is based only on a cross section.

Specification (2)
Your TLTRO-shock =
- \textit{common} shock to the term premium (shared across all banks)
- \textit{idiosyncratic} shock to bank’s \textit{risk premium}.

$\Rightarrow$ Country-by-time fixed effects absorb the common shock.

\[
\Delta L_{i,t+h} = \alpha_{c,t,h} + \alpha_{i,t,h} + \beta_{h}^{T}\text{TLTRO shock}_{i,t} + \Gamma_{h}^{T}X_{i,t-1}^{T} + \epsilon_{i,t+h}^{T}
\]

Can you compare the different periods?
Pre-Pandemic: Sep 2014-Feb 2020 (7 events)
Post-Pandemic: Mar 2020-Dec 2020 (2 events in March+April)
Specification (3)

- Now you shift to **NFC lending**. But capital relief actually addresses **all types of lending**.
- How can you run this for the **Pre-pandemic** period if is only defined at Feb 2020?

$$
\Delta L_{i,t+h}^\tau = \alpha_{c,t,h}^\tau + \alpha_{i,h}^\tau + \delta_h^\tau \text{mid} \times D_{i,t-1}^{\tau,\text{mid}} + \delta_h^\tau \text{low} \times D_{i,t-1}^{\tau,\text{low}} + \delta_h^\tau \text{high} \times D_{i,t-1}^{\tau,\text{high}} + \Gamma_h^\tau X_{i,t-1}^\tau + \epsilon_{i,t+h}^\tau
$$

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>(1) Loan growth 3 months ahead</th>
<th>(2) Loan growth 6 months ahead</th>
<th>(3) Loan growth 9 months ahead</th>
<th>(4) Loan growth 24 months ahead</th>
<th>(5) Loan growth 3 months ahead</th>
<th>(6) Loan growth 6 months ahead</th>
<th>(7) Loan growth 9 months ahead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital relief shock</td>
<td>0.419***</td>
<td>0.885***</td>
<td>1.187***</td>
<td>1.467***</td>
<td>1.779**</td>
<td>3.230***</td>
<td>1.781*</td>
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<tr>
<td></td>
<td>(0.118)</td>
<td>(0.199)</td>
<td>(0.285)</td>
<td>(0.463)</td>
<td>(0.866)</td>
<td>(1.224)</td>
<td>(1.050)</td>
</tr>
<tr>
<td>Capital relief shock (low capital)</td>
<td>0.525**</td>
<td>0.916***</td>
<td>1.316***</td>
<td>0.447</td>
<td>1.766**</td>
<td>2.325**</td>
<td>-0.849</td>
</tr>
<tr>
<td></td>
<td>(0.232)</td>
<td>(0.290)</td>
<td>(0.426)</td>
<td>(0.834)</td>
<td>(0.778)</td>
<td>(1.139)</td>
<td>(1.115)</td>
</tr>
<tr>
<td>Capital relief shock (high capital)</td>
<td>0.211*</td>
<td>0.421*</td>
<td>0.558**</td>
<td>-0.174</td>
<td>0.767</td>
<td>2.156**</td>
<td>-0.517</td>
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<tr>
<td></td>
<td>(0.127)</td>
<td>(0.217)</td>
<td>(0.285)</td>
<td>(0.447)</td>
<td>(0.636)</td>
<td>(0.855)</td>
<td>(0.736)</td>
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<tr>
<td>Controls for bank size and capital buffer</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
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<tr>
<td>Bank FE</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
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<td>YES</td>
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<tr>
<td>Country-time FE</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
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<tr>
<td>Observations</td>
<td>14,651</td>
<td>14,534</td>
<td>14,418</td>
<td>11,187</td>
<td>1,684</td>
<td>1,050</td>
<td>420</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.264</td>
<td>0.347</td>
<td>0.390</td>
<td>0.579</td>
<td>0.464</td>
<td>0.780</td>
<td>0.898</td>
</tr>
</tbody>
</table>
Specification 4

- Is the standalone effect of the capital buffer in the table?
- Consider marginal effects evaluated at X=?
Technical Comments, specific

Table 5 results
- initial raise: credit lines, guarantees uptake, then enough liquidity (Phase 1)
- TLTRO funds (-) contrasts with Fig 6?

<table>
<thead>
<tr>
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<th>Loan growth 9 months ahead</th>
<th>Loan growth 3 months ahead</th>
<th>Loan growth 6 months ahead</th>
<th>Loan growth 9 months ahead</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLTRO shock</td>
<td>0.065</td>
<td>0.118**</td>
<td>0.136**</td>
<td>0.072**</td>
<td>0.126**</td>
<td>0.142**</td>
</tr>
<tr>
<td>(0.039)</td>
<td>(0.050)</td>
<td>(0.041)</td>
<td>(0.041)</td>
<td>(0.054)</td>
<td>(0.039)</td>
<td></td>
</tr>
<tr>
<td>Government guarantees/Loans</td>
<td>0.427**</td>
<td>1.057</td>
<td>-</td>
<td>0.360**</td>
<td>1.075</td>
<td>-</td>
</tr>
<tr>
<td>(0.186)</td>
<td>(0.801)</td>
<td></td>
<td>(0.173)</td>
<td>(0.796)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Securities holdings/Assets</td>
<td>-0.206</td>
<td>-1.368</td>
<td>-0.752</td>
<td>-0.296</td>
<td>-1.439*</td>
<td>-0.990</td>
</tr>
<tr>
<td>(0.504)</td>
<td>(0.864)</td>
<td>(0.749)</td>
<td>(0.504)</td>
<td>(0.844)</td>
<td>(0.818)</td>
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<tr>
<td>Excess liquidity/Assets</td>
<td>0.071</td>
<td>1.063**</td>
<td>-0.099</td>
<td>0.088</td>
<td>1.083**</td>
<td>-0.091</td>
</tr>
<tr>
<td>(0.158)</td>
<td>(0.450)</td>
<td>(0.841)</td>
<td>(0.182)</td>
<td>(0.471)</td>
<td>(0.928)</td>
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</tr>
<tr>
<td>Deposit ratio</td>
<td>-0.391</td>
<td>-0.094</td>
<td>-0.820</td>
<td>-0.391</td>
<td>-0.094</td>
<td>-0.820</td>
</tr>
<tr>
<td>(0.299)</td>
<td>(0.351)</td>
<td>(0.982)</td>
<td></td>
<td>(0.351)</td>
<td>(0.982)</td>
<td></td>
</tr>
<tr>
<td>TLTRO funds/Assets</td>
<td>-0.375**</td>
<td>-0.527***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.181)</td>
<td>(0.169)</td>
<td>(0.330)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Capital buffer</td>
<td>-0.410</td>
<td>-0.777</td>
<td>-0.088</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(0.428)</td>
<td>(1.237)</td>
<td>(1.436)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you for your attention!

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Summary and Conclusions

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*Did the joint implementation of measures amplify their impact?*

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**Overall impression**

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**Comments**

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Data

Standalone analysis (349 banks, Sep 2014-Dec 2020)

Bank (>300 banks)
• TLTRO uptake and borrowing allowances (balance sheet statistics, 349 banks)
• Bank-specific capital requirements (SREP by ESM)
• CET1 ratios (from SNL Financial)
• Bank bond yields (from Markit iBoxx)

Policy Shock
Daily changes in bond prices around monetary policy announcements

Approach + Identification
a) Standalone analysis
- Local projection methods to estimate the dynamic effects of exogenous policy shocks
  - shocks = daily changes in bond prices around MP announcements
  - Demand controls: country-by-time fixed effects (also any national policy like guarantees and moratoria)

b) Amplification

c) Real effects (pre-pandemic firm data)