The Effect of the PPPLF on PPP Lending by Commercial Banks

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Motivation

• The Paycheck Protection Program (PPP) was established by Congress to support small businesses during the pandemic.
  • Researchers have found it was successful. (Bartik et. al (2020); Autor et. al (2020); Doniger and Kay (2021) among others)

• The Paycheck Protection Program Liquidity Facility (PPPLF) established by the Fed to bolster banks’ ability to make PPP loans.

• We ask if the PPPLF was successful at boosting PPP lending by commercial banks.
General Findings

- Banks that used the PPPLF made nearly 2x more PPP loans, relative to assets, than banks that did not use the PPPLF.
  - Back-of-the-envelope calculations suggests $53 billion additional PPP loans issued.
  - The PPPLF boosted PPP lending more for small community banks.
  - Much of the effect was in April of 2020.

- In its role as a backstop, we find evidence that large community banks issued nearly 50% more PPP loans because of the presence of the PPPLF.
  - Back-of-the-envelope calculations suggests $15 billion additional PPP loans issued by large community banks.
Private sector lenders were encouraged to make PPP loans to eligible small businesses beginning on April 3, 2020.

- PPP loans were guaranteed by the SBA.
- The PPP loans reside on the balance sheets of the lenders but the lenders do not incur credit risk.
- Lenders received a fee for originating PPP loans. The rate was set at 1%.
The Paycheck Protection Program Liquidity Facility (PPPLF)

On April 9, 2020, the Fed established the PPPLF to commercial banks.

- Maturity of PPPLF loan matches PPP loan.
- Provides low-cost financing; PPPLF loans have a rate of 0.35%.
- The PPPLF was, on average, cheaper than FHLB funding.
- The amount of the PPPLF loan equals the amount of the PPP loan.
- PPPLF loans are collateralized by a PPP loan.
- Banks had to pay back the PPPLF loan if the SBA forgave the PPP loan.
- Banks had to submit paperwork before borrowing.
Banks as PPP Lenders

Our sample includes 4,225 commercial banks we identify as PPP lenders.

- The FFIEC June 30, 2020 Call Report asks respondents to report their participation in the PPP.
- We identify 743 of the 4,225 banks that used the PPPLF between April 9, 2020 and June 30, 2020.
### Summary Statistics on Banks that used the PPP and PPPLF Programs

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Borrowed from PPPLF</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPP loans / Assets</td>
<td>743</td>
<td>0.17</td>
</tr>
<tr>
<td>PPP loans / Assets, Adjusted</td>
<td>743</td>
<td>0.11</td>
</tr>
<tr>
<td><strong>Did not borrow from PPPLF</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPP loans / Assets</td>
<td>3,482</td>
<td>0.06</td>
</tr>
<tr>
<td>PPP loans / Assets, Adjusted</td>
<td>3,482</td>
<td>0.05</td>
</tr>
</tbody>
</table>
Identification

Challenge to identify whether the PPPLF had a causal effect on banks' PPP lending. We use an IV approach.

• Our IV is a bank’s “Familiarity with the Discount Window (DW)".
  • Measured by the practice of pledging loan collateral to the DW.
  • This process was nearly identical to pledging PPP loans to the PPPLF.

We argue there is a clear mechanism where Familiarity would have made banks more likely to consider PPPLF as funding.
## Familiarity with the DW

<table>
<thead>
<tr>
<th></th>
<th>Borrowed from PPPLF</th>
<th>Did not borrow</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Banks (4,225)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan Collateral Pledged</td>
<td>233</td>
<td>531</td>
</tr>
<tr>
<td>PPPLF docs on file</td>
<td></td>
<td></td>
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<tr>
<td><strong>All Banks (4,225)</strong></td>
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<td></td>
</tr>
<tr>
<td>Loan Collateral Pledged</td>
<td>445</td>
<td>319</td>
</tr>
</tbody>
</table>
Main Results

- We find that borrowing from the PPPLF increased PPP lending by 6.4 percentage points (2x) in comparison to banks that did not borrow.
  - We find that our IV, *Familiarity with the DW*, strongly predicts borrowing from the PPPLF.

- We find this effect to be the strongest for small community banks.
  - Small community banks that borrowed from the PPPLF increased their PPP loans by 9.5 percentage points.
The Role of the PPPLF as a Backstop

• Did banks change the amount of PPP loans extended because of the certainty of funding the PPPLF provided, even if they never actually borrowed from the PPPLF?

• We find that large community banks increased their PPP lending by 3.4 percentage points (50% more) because of the presence of the PPPLF.
  • Evidence that some banks considered the PPPLF as a backstop.
Conclusion

• We show that banks that borrowed from the PPPLF extended 2x more PPP loans than banks that did not borrow.
  • This effect is strongest for small community banks.
  • The PPPLF changed the behavior of large community banks that did not need to borrow. Large community banks issued 50% more PPP loans because of the certainty the PPPLF provided.