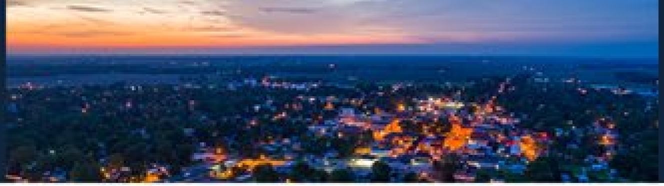

The Effect of the PPPLF on PPP Lending by Commercial Banks

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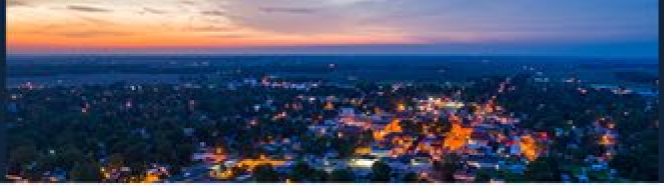
Motivation

- 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.

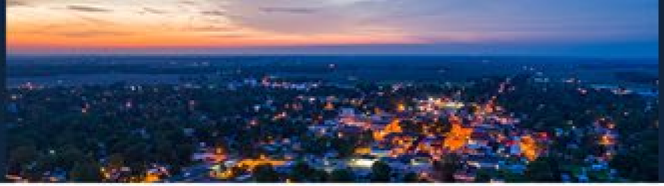
- We ask if the PPPLF was successful at boosting PPP lending by commercial banks.



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.



The Paycheck Protection Program (PPP)

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)

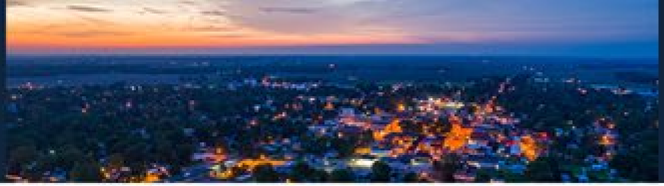
On April 9, 2020, the Fed established the PPPLF to commercial banks.

- 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

	N	Mean
Borrowed from PPPLF		
PPP loans / Assets	743	0.17
PPP loans / Assets, Adjusted	743	0.11
Did not borrow from PPPLF		
PPP loans / Assets	3,482	0.06
PPP loans / Assets, Adjusted	3,482	0.05

Identification

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

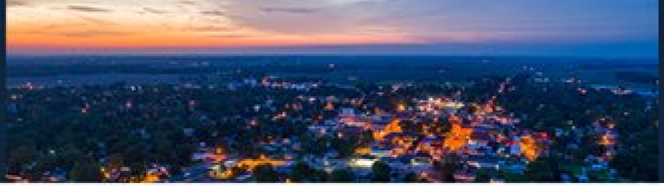
- Our IV is a bank's "Familiarity with the Discount Window (DW)".
    - Measured by the practice of pledging loan collateral to the DW.
    - This process was nearly identical to pledging PPP loans to the PPPLF.

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

Familiarity with the DW

	Borrowed from PPPLF	Did not borrow
All Banks (4,225)		
Loan Collateral Pledged	233	531

	PPPLF docs on file	No PPPLF docs
All Banks (4,225)		
Loan Collateral Pledged	445	319



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.