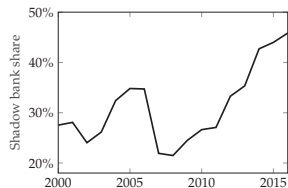# Discussion:
"The Secular Decline in Interest Rates and the Rise of Shadow Banks"
by Sarto and Wang

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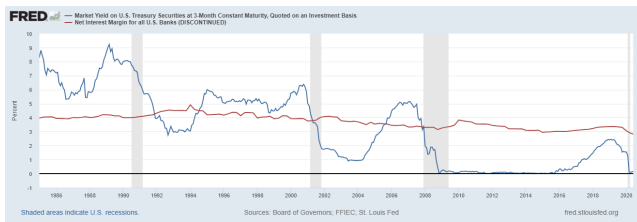Macro Finance Society Workshop 2023

What explains the rise in shadow bank activity?

Explanations so far

▶ Tighter reg & less efficient

▶ E.g., Buchak et al. (2018); Atkeson et al. (2019); Begenau and Stafford (2020); Begenau and Landvoigt (2022)

▶ This paper: rise of shadow banks due to low net-interest margins

Summary of the paper

Illustrative model with regulated and shadow banks

- ▶ Both banks compete in homogeneous loan market, single loan spread
- ▶ Reg. banks deposit fund. adv. but constrained to satiate loan demand
- ▶ Decrease in r
    - ▶ Reduces reg. banks funding advantage
    - ▶ Pushes up loan spread
    - ▶ Makes lending more attractive for unconstrained S-banks

XS evidence with Bartik-style instrument: exposure to interest rate decline

$$e_{bt} = \sum_{i \in I_A} \omega_{b,1990}^I \times \int_{t_0}^{t} \left(r_s^i - r_{t_0}^i \right) ds - \sum_{i \in I_D} \omega_{b,1990}^I \times \int_{t_0}^{t} \left[r_s^i - r_{t_0}^i \right] ds$$

- ▶ Exposed if initial balance sheet comp. predicts more decline in NIM.
- ▶ Findings:
    - ▶ Exposed banks lower growth over 2003-2016
    - ▶ Counties with more exposed banks higher shadow bank share
      10bps increase in exposure $\Rightarrow$ +1pp SB
- ▶ Lots of robustness (e.g., large banks, various county controls)

Contribution and Discussion

Contribution

▶ Interesting alternative explanations for rise in shadow banking sector

▶ Creative use of Bartik-style logic

▶ Interpretation of results:
Decline in r has harmed banks' competitiveness

Discussion:

▶ Propose alternative but related interpretation: many banks operate inefficiently & declining interest rates masked their underperformance

▶ How important is this channel quantitatively?

What are banks?

Cash	Transactable Deposits
Securities	
Loans	Time Deposits
	Debt
Other	Equity
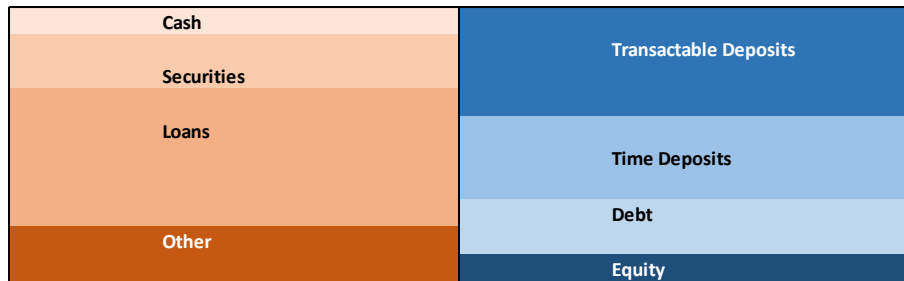
- ▶ Fixed income securities with credit and interest rate risk (Begenau, Piazzesi, and Schneider, 2015); transaction deposits of unknown duration

- ▶ Business two components: risk-bearing (levered fixed income portfolio) + operating business (transaction service, monitoring etc)

- ▶ Begenau and Stafford (2020) calculate benchmark return on risk-bearing component: Given risk exposures what is the minimum required return?

Performance of banks' risk-bearing business component in capital markets
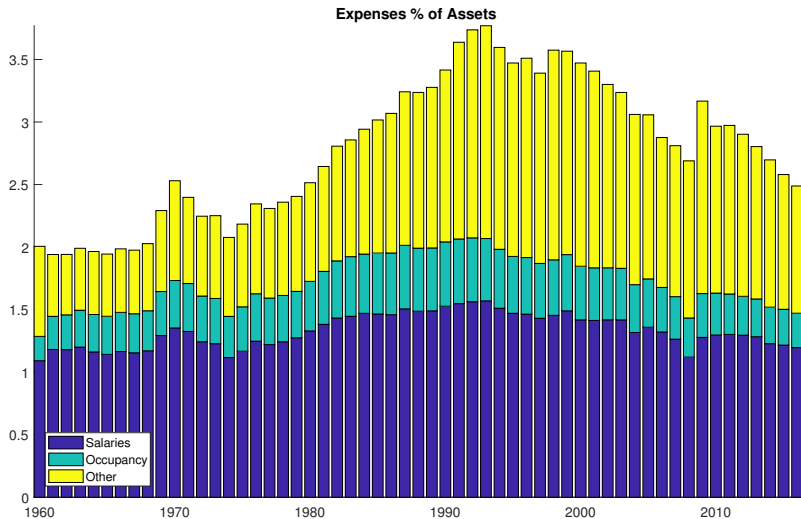
Passive Strategy

- ▶ Each month, buy 6yr UST at par & hold to maturity
- ▶ Roughly 3 year net-duration portfolio as banks

CAPM regressions quarterly returns

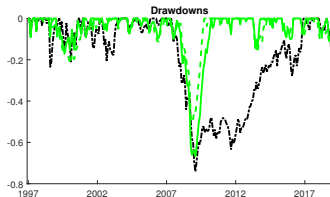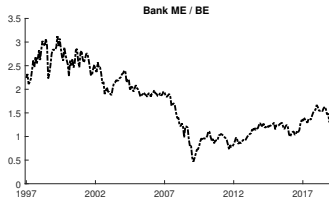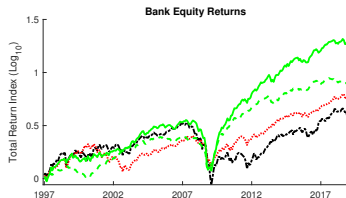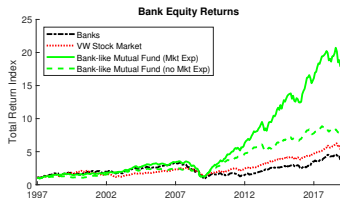| Time Period	α	β	R^2 / **N**
1960-1980	-0.53	0.09	0.10
	(-0.50)	(3.00)	86
1981-2016	2.70	0.00	0.00
	(4.04)	(-0.13)	140

- ▶ Strategy has done well since 1981 (Fama 2006, Bridgewater, JPM) until recently (SVB)

But banks business costs are large: $\approx 30\%$ fee on equity

Bank equity compared to synthetic bank mutual fund

▶ Begenau and Stafford (2020) build mutual fund based on banks' risks

▶ Banks appear constrained since crisis! Low rates? Or structural inefficiencies? Declining margins would also affect our synthetic bank

Alternative interpretation of Sarto and Wang's XS findings

▶ Banks exposed to interest rate risk (IRR) and credit risk (Begenau, Piazzesi, and Schneider, 2015); IRR has helped banks

▶ Highly exposed banks $\approx$ lower duration banks (e.g., loans tend to have shorter duration vs securities) $\Rightarrow$ less tail winds

▶ More exposed $\approx$ less able to mask structural inefficiencies $\gamma^B > \gamma^{SB}$

Figure 2: PRICE DATA FROM RATEWATCH
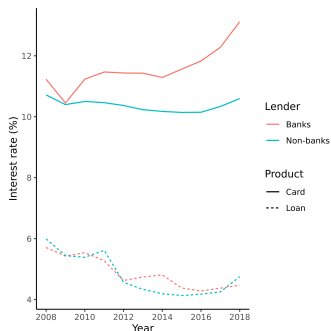
▶ Banks less competitive (as paper) due to own structural inefficiencies

▶ Consistent with

  ▶ Benetton et al. (2022): if anything loan spreads went down, not up as mechanism predicts (see left fig)

  ▶ Banks switching to fund shadow banks Jiang (2019)

  ▶ Cost cutting channel as paper & in Williams (2020)

How do the XS results add up to explain macro-trend

▶ Buchak, Matvos, Piskorski, and Seru (2018) show a rise of shadow bank activity by over 20 percentage points

▶ How much of shadow bank rise can new channel explain?

▶ How do balance sheet positions in 1990 have such long term cumulative effects?

▶ Even if effects are nicely identified, still run into missing intercept problem: key effects are differenced out (see Wolf, 2021)

▶ Useful to quantify complementary forces in a model (e.g., Buchak, Matvos, Piskorski, and Seru, 2018; Elenev, Landvoigt, and Van Nieuwerburgh, 2021; Begenau and Landvoigt, 2022)

Some more questions

▶ Changes in bank sample: How do you deal with mergers-acquisition-failures? This matters for your exposure measure in 1990, your calculation of r_t^i, your definition of big banks in Table 20, etc...

▶ How do you explain the long persistent effects of initial balance sheet (since banks could have changed - avg. asset maturity is 3-5 years)

▶ How should we think of the economic magnitudes of the effect? The binscatter plots (Figures 4, 5, 6) suggest tiny economic effects.

▶ It would be useful to show what balance sheet characteristics e_{bt} loads on. Is it about alternative retail banking business model or spreads?

▶ How does it relate to Abadi et al. (2022)?

▶ The decline in interest rates is a 40 year phenomenon? Why did we not see a significant rise in shadow banking until GFC happened?

Conclusion

▶ Very interesting paper!

▶ Results make also sense from an inefficient banking system view :)

▶ Would be interesting to quantify economic magnitudes

References

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