Discussion of

Bankruptcy and Restructuring Outcomes of CLO-held Loans: The Role of CLO-Bank Relationships

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2024 ABFER Conference

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On the Benefit of CLO-Bank Relationships: Evidence from Bankruptcy and Restructuring Outcomes of CLO-held Loans

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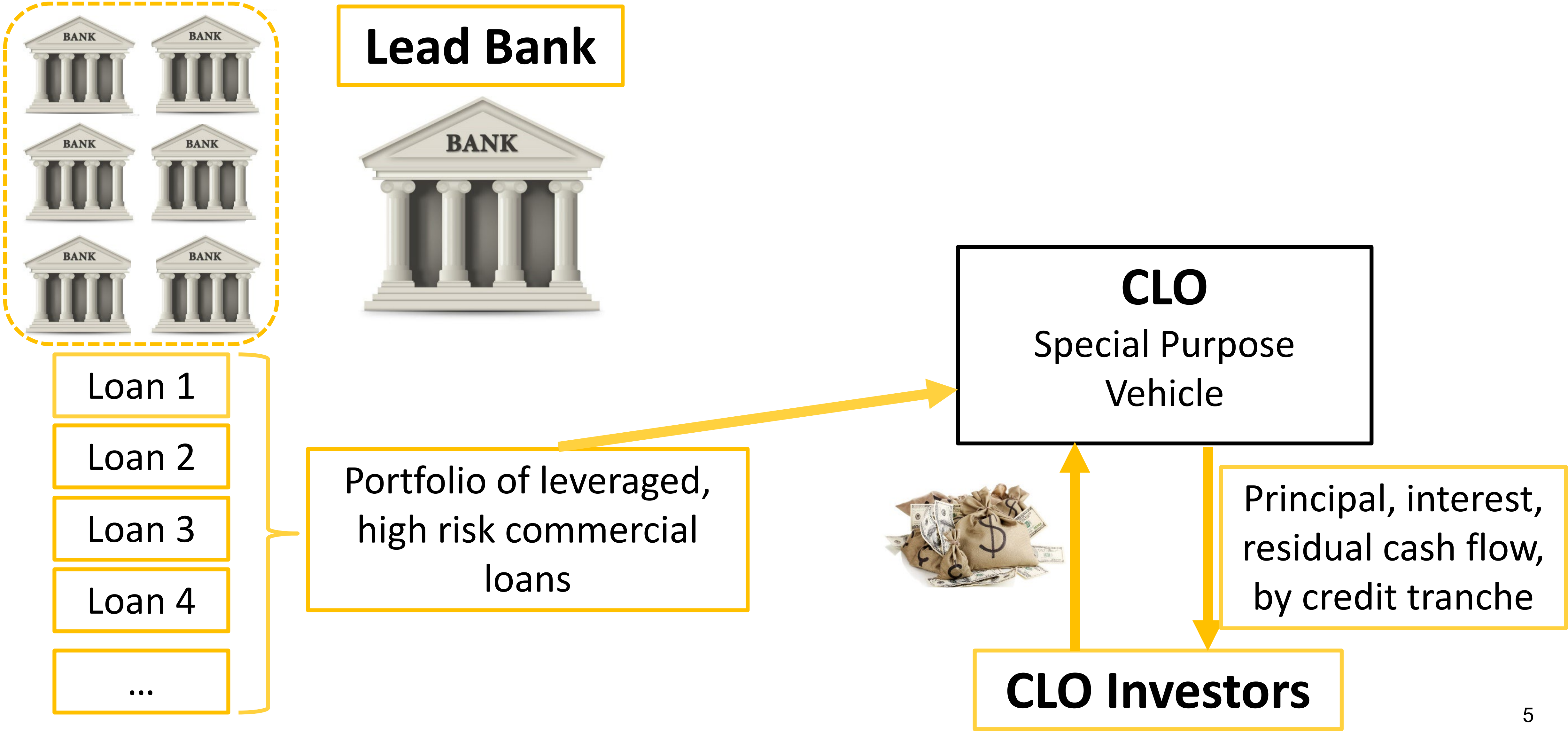
Before I begin

- My perspective
  - I am not an expert in this literature, so please forgive any misunderstandings
  - I am interested in role of information in enhancing the efficiency of capital markets
- My plan
  - Explain my understanding of the study's motivation and research question
  - Overview main results
  - Raise comments and questions aimed at increasing impact
  - Highlight a few research design observations aimed at increasing confidence in the inferences

Motivation

- Rapid growth in CLO market since financial crisis 2008-2009
  - CLOs hold half of the $1.2 trillion leveraged commercial loans in the US
- Regulators express concern that these securitizations create significant risk to the financial system and the economy
  - Thus, greater regulation and investor protection is needed
- Yet, post-crisis > 85% of loans in CLO portfolios are from lead banks that have pre-existing relationships with the CLO manager
  - Suggests relationships between CLO managers and lead banks has developed as an information-sharing mechanism to mitigate CLO risk

Collateralized Loan Obligations (CLOs)



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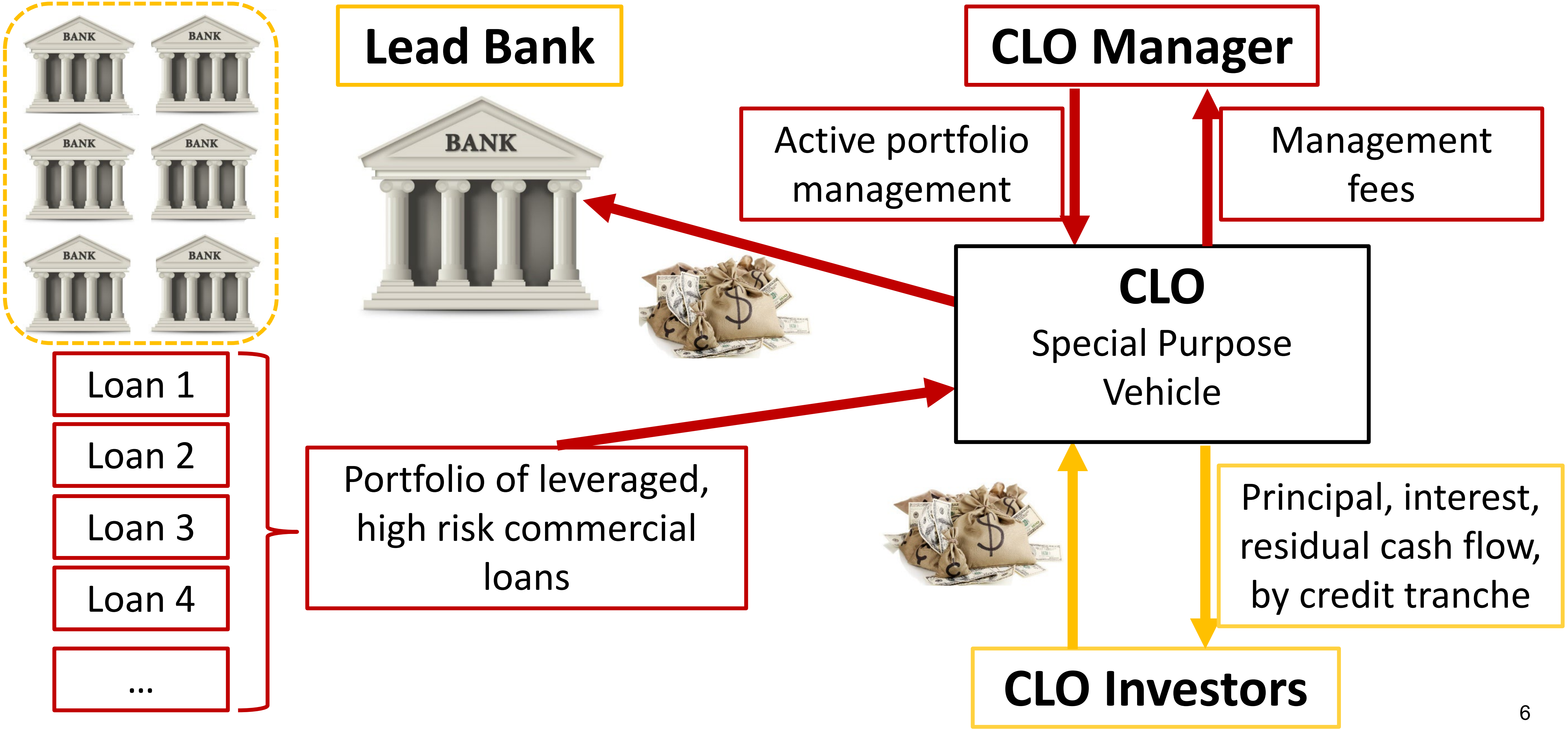

Collateralized Loan Obligations (CLOs)

Lead Bank

CLO Manager

Loan 1

Loan 2

Loan 3

Loan 4

…

QUESTION:

Does lead bank share its private information about borrower risk with CLO managers when the bank and CLO manager have pre-existing relationship?

Motivating question

- Motivating question

Do lead banks of loans held by collateralized loan obligations (CLOs) share private information about borrowers with CLO managers when the bank and CLO manager have a pre-existing relationship?

- Key contribution

Showing that lead banks sharing private information about borrowers with CLO managers can mitigate CLO risk

Main result #1

1. Borrowers with loans initially purchased by bank-related CLOs are less likely to have negative credit events over the next three years than other borrowers with similar market perceived default risk
   – Negative credit events include filing for Chapter 11 bankruptcy and experiencing credit rating downgrades to CCC and below

- Key design feature is including Expected Default Frequency (EDF) as a control variable
  – EDF is Moody's KMV implementation of Merton (1974) and is a summary statistic for publicly available information about a firm's credit risk
  – This finding supports inference that CLOs have private information
  – Does prior research employ EDF in this way?

Main results #2 and #3

2. Conditional on bankruptcy, borrowers with loans held by bank-related CLOs more likely to use pre-packaged filings, restructure successfully, and to emerge from Chapter 11
   – Significant for CLOs with strong pre-existing relationships with lead banks, but not for CLOs with not-strong pre-existing relationships
   – Suggests less costly renegotiation and coordination between CLO managers and lead banks

3. Benefits of CLO-bank relationships incentivize CLOs to develop such relationships through repeated transactions
   – Particularly for CLOs with strong pre-existing relationship with lead bank

Supporting evidence

- CLO initial buys result is significant:
  - CLOs with strong pre-existing relationships with lead banks—not consistently for CLOs with not-strong pre-existing relationships
  - Firms with high private information—not low—as indicated by high loan spread residuals and low debt-contracting value (DCV)
  - Unrelated—not related—borrowers, i.e., borrowers from which CLOs repeatedly purchase loans => borrowers are not the information source
  - Incremental to controls for subsequent loans buys and sales, and regardless of presence of loan covenants => not *ex post* monitoring
  - Delisting and downgrades as alternative negative credit events
  - Regardless of extent of CLO manager's experience in CLO market
  - Post-crisis period, but not in the pre-crisis period or crisis period…

Comments and questions

1. Private information acquisition is difficult to establish, but paper employs interesting and clever tests
   - Including a market-based control for public information—EDF—permits interpreting the result as associated with private information
   - Showing that the relationship between CLO managers and borrowers does not contribute to CLOs selecting loans with fewer future negative credit events helps rule out borrowers as the information source
   - Showing that CLOs maintain relationships with lead banks by repeatedly purchasing loans from them adds validity to story
   - However, in the absence of direct evidence or theory, it is difficult to know when enough is enough ☺

Comments and questions

2. Who enjoys the rents from the private information that is shared?
   - Borrowers, CLO managers, Lead banks?
   - How do the rents manifest? Lower interest rates to the borrower on the loan that becomes part of the CLO? Lower default risk for the lead bank? Higher returns or management fees to CLO manager?
3. What are costs of CLO-bank relationships and who bears them?
   - Focus is on benefits—fewer negative credit events and more successful, less costly bankruptcy restructuring outcomes
   - Would identifying costs to various parties, perhaps with estimates of their magnitudes, add insights?

Comments and questions

4. Does the risk to the financial system and economy come from CLOs as traded entities or from the risk of individual borrowers?
   - Focus of empirical work is outcome of firms whose loans are in CLOs
   - Conclusion refers to credit rating actions relating to securities of the CLO
5. Why does finding significant results only after the financial crisis support the hypothesis?
   - More discussion on the link with crisis would strengthen inferences
   - We observe the concurrent changes, but what is likely reason?
   - Do any of these reasons have testable implications?

Comments and questions

6. Does it matter how and why the relationship began?
   - We step in when there is an established relationship but that is not the beginning of the timeline
   - Focus of empirical work is outcome of firms whose loans are in CLOs
7. What information is shared?
   - This study is a crucial first step---establishing that some private information is shared---but presumably not the last
   - Cannot make important information available if we do not know what it is

Clarify roles of each type of player; use same names for same roles

CLO Manager	CLO managers, CLO arranger, CLO lead arranger, active CLO arrangers, CLOs, Bank-related CLOs, CLO-Bank relationships, CLO-lead bank relationship, Bank-affiliated CLO…
Lead Bank	Lead bank, Lead arranger, Relationship arranger, Banks that have originated loans held by CLO…
Firm	Borrower of loans held by bank-related CLOs, Debtor, Loan issuers…

Other research design questions

- What variables are included *Controls* in each estimation equation?

Eqn (1) Table 3	13 variables, plus Lead Bank and Industry-Year FE
Eqn (3) Table 7	7 variables; 2 in Table 3 and 5 not in Table 3

- Are all main effects of interactions in the estimation equations?

Eqns (2) and (4) Tables 4, 5, and 7	*Strong Related, Not Strong Related* *Related Borrower, UnrelatedBorrower*
Table 6	*Cov Lite, With Cov; Experienced, Inexperienced*

Other research design questions

- Why use particular fixed effects and standard error clusters?

	Fixed Effects	Standard Error Clustering
Eqns (1) to (2), Tables 3 to 6	*Firm, Year-Month*	
	Lead Bank, Industry-Year	*Firm, Year-Month*
Eqns (3) to (6) Table 7	*Industry*	*Year*
Eqn (7) Table 8	*CLO, Lead Bank, Firm, Year*	*CLO*

- Fixed effects assume means differ within group; clusters assume errors are correlated within group but uncorrelated outside

  => Fixed effects should nest within clusters => clusters broader

  Industry FE/firm clusters often not okay; Industry clusters/firm FE often are

Conclusion

- Interesting paper!
- I appreciate the opportunity to discuss the paper
- I enjoyed reading it and learned a lot
- There is more to learn about the role of private information in the success of these financing structures ☺
- I hope my comments are helpful in improving the paper
- Good luck with it!

Thank you!