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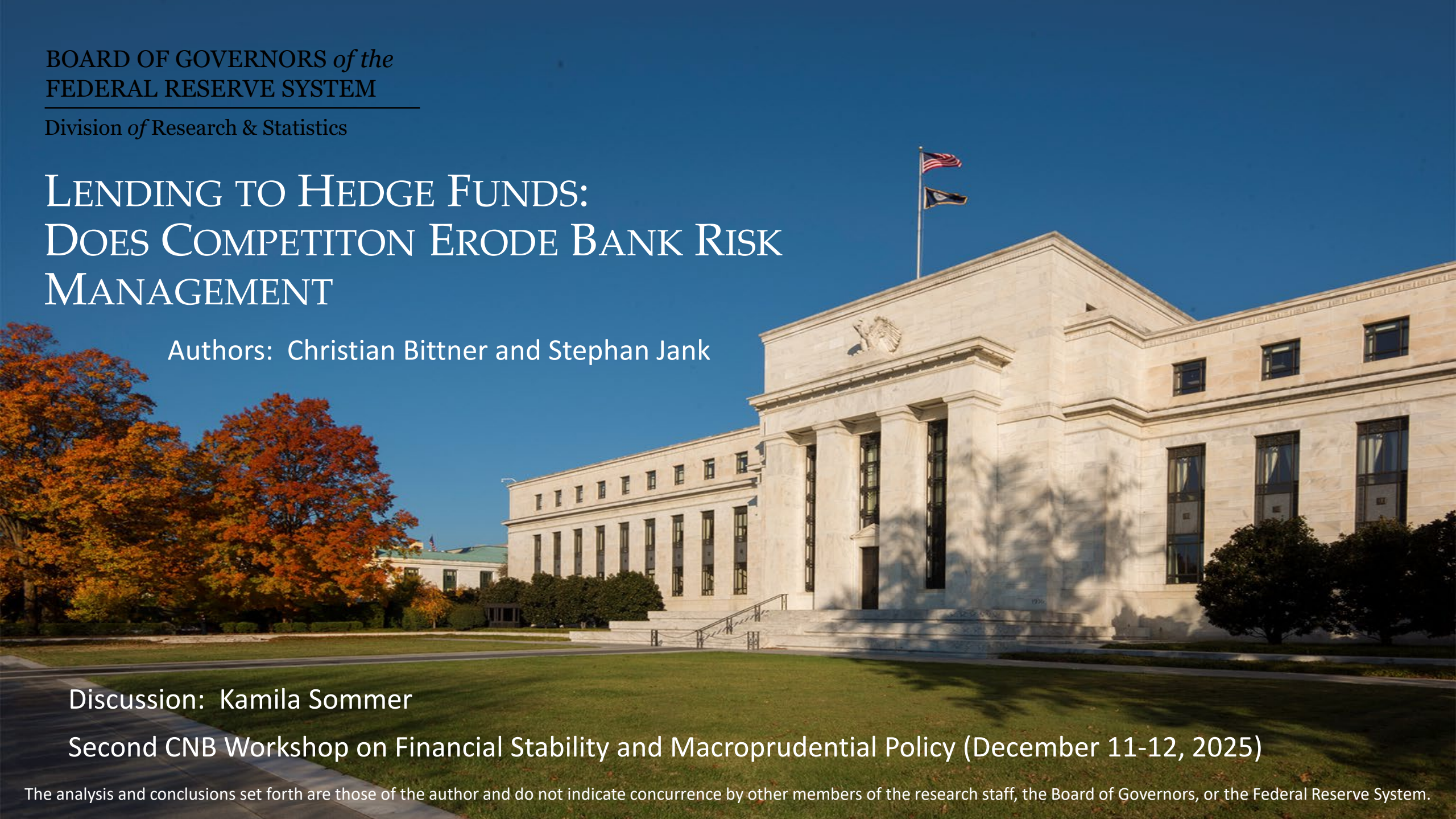
LENDING TO HEDGE FUNDS: DOES COMPETITION ERODE BANK RISK MANAGEMENT

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The analysis and conclusions set forth are those of the author and do not indicate concurrence by other members of the research staff, the Board of Governors, or the Federal Reserve System.



Introduction



Research Question:

How does hedge funds' bargaining power affect banks' risk management practices in secured lending?

- **Context:** NBFIs have become the largest financial intermediaries globally.
 - **Growth of hedge fund industry** particularly pronounced (assets tripled from \$1.48T in 2012 to \$4.84T in 2022).
 - **Multi-broker relationships:** Increasing trend among hedge funds (from 10% in 2006 to 45% in 2021).
- **Regulatory concern:** Competition for hedge fund business may compromise banks' risk management standards.
 - **BIS (2025):** “...largest hedge funds [benefit] from the lowest haircuts, enabling very high levels of leverage.”
- **Findings:** hedge funds with greater bargaining power (*proxied by # of relationships with dealers*) enjoy lower haircuts on repo transactions.

Data and research design



Money Market Statistical Reporting (MMSR) dataset

- **Focus on repo transactions:** Primary method of lending to hedge funds.
- **Risk assessed through haircuts:** Key risk management tool in repo lending.
 - Only transactions with positive haircuts are considered.
 - Questions on filters: Only bank-dealers? Specific types of securities (e.g., government bonds) or any type?

Reduced-form empirical strategy

- **Saturated regression framework with fixed effects.**
 - Controls for collateral characteristics, time effects, and hedge fund PD.

Quasi-natural experiment

- **Credit Suisse's exit from prime brokerage after Archegos default.**
- Treatment: hedge funds with CS dealer relationship.
- Control: hedge funds without CS relationship.
- (Which other controls for treatment and control groups?)

1. Endogeneity concerns



Assumption:

- Larger # of dealer-hedge fund relationships associated with greater bargaining power (which leads to lower haircuts).

Concern:

- The # of relationships with dealer banks can be correlated with omitted factors that drive the effect on haircuts, leading to a spurious correlation.

Possible Omitted Factors Affecting Haircuts:

- Existence of Master agreements: haircut margins can be calculated at a portfolio-level, rather than security level → direct impact on haircut of a specific security.
- Netting practices: repo transactions can be netted out between the dealer and hedge fund, leading to zero or low haircuts.
- Other (unobservable) hedge fund specific characteristics that drive the haircuts while also affecting the # of dealer relationships (e.g., relationships; size, position concentrations, etc.).



2. Credit Suisse experiment

Quasi-natural experiment

- Credit Suisse's (CS) exit from prime brokerage after Archegos default.

Finding:

- Hedge funds with CS exposures and a few dealer relationships experienced a widening of haircuts relative to a control group.

Question:

Could the result reflect an increase in perceived counterparty risk for hedge funds associated with CS?

Possible increase in counterparty risk for hedge funds with CS exposure and few other dealer relationship?

- Kruttli et al. (2022): "... idiosyncratic liquidity shock to a prime broker ...worsens credit conditions of connected hedge funds."
- Di Maggio et al. (2017): "A sudden exit of a prime broker exposes hedge funds to severe funding risks..."
- Possible "soft" test: Did bank-predicted PDs of treated hedge funds change relative to the control after the CS announcement?



3. Adding normative discussion

- **Paper suggests:** more relationships lead to lower haircuts and, hence, more risk to bank dealers.
- **But:** Could multiple relationships may reduce risk to both the dealer and the hedge fund?
 - *Sudden collapse of Lehman Brothers “has led to a change from single to multiple broker relationships ... (Agarval et al. 2017)”*

How should policy makers weigh these risks?

- **And:** Does increase competition decrease haircuts to a level that is “too low”?

Fantastic paper

- **Much recommended reading.**
- **Good luck with publication!**

