# Going for Broke:

## Bank Reputation and the Performance of Opaque Securities

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Abe de Jong

Monash / Groningen University

Tim Kooijmans

RMIT University

Peter Koudijs

Erasmus University Rotterdam


RMIT UNIVERSITY

What's next…

# Motivation (1)

- Can **bank reputation** support the issuance of opaque securities, and under what conditions?
  - **Issuance**: banks sell securities to **investors**
  - **Opaque**: hard for investors to **verify quality**, e.g. mortgage-backed securities (MBS)
  - Conflict of interest → **bankers may sell bad assets, market as good**

- **Reputation**
  - **Disciplining mechanism:** reputational damage → loss of future profits
  - Retention (Leland and Pyle 1977) unverifiable, hard to commit
  - Regulation costly, impeding innovation

- **Empirical evidence** → limited effectiveness
  - 2000s: poor quality MBS placed regardless of bank reputation (Griffin et al. 2014; Piskorksi et al. 2015)
  - 1990s: Internet firms without track record (failing later) overpriced by Goldman Sachs, Morgan Stanley, etc. (SEC 2005)
  - 1920s: No disclosure requirements – Banks of "enormous prestige and reputation" placed bad securities (Pecora 1939).

# Motivation (2)

- Bank reputation: **ambiguous theoretical predictions**
  - Build reputation to burn (Kreps & Wilson 1982, Milgrom & Roberts 1982, Chari et al. (2014), Hartman-Glaser 2017)
  - High reputation $\rightarrow$ lower security quality, if misconduct only discovered in bad states (Griffin et al. 2014)
  - High reputation $\rightarrow$ higher credit rating inflation, if no large "outside" business at stake (Mathis et al. 2009)

- Bank managers' **exposure to reputational losses**
  - Limited liability, bailout expectations, limited career consequences of misconduct (Hett & Schmidt 2017; Griffin et al. 2019)
  - High powered incentives: bonuses, equity-based compensation (Bolton et al. 2015)

# This paper

- We study the first MBS-driven credit boom and bust
  - Securitization of Surinam plantation mortgages by Dutch merchant-banks
  - Issuance peaked in years 1769-1770

- Unique parsimonious setting $\longrightarrow$ focus on the role of reputation
  - Government enforces contracts, no further regulation, involvement or (expected) bailouts
  - Retention limited (warehousing)

- Bank reputation
  - **Variation in reputation** (first high-reputation, lower reputation enter over time)
  - **Personal exposure to reputational losses**: unlimited liability partnerships (ownership ≈ control)
  - **Variation in exposure:** bankers' shielded wealth (pre-nubs); share in short-term profits (after partner death)

- Question
  - Did merchant-bank reputation improve MBS quality and performance?

# Surinam in the 18th century

- Plantation economy based on exploitation of enslaved people
  - Sugar and coffee plantations (150/120 enslaved)

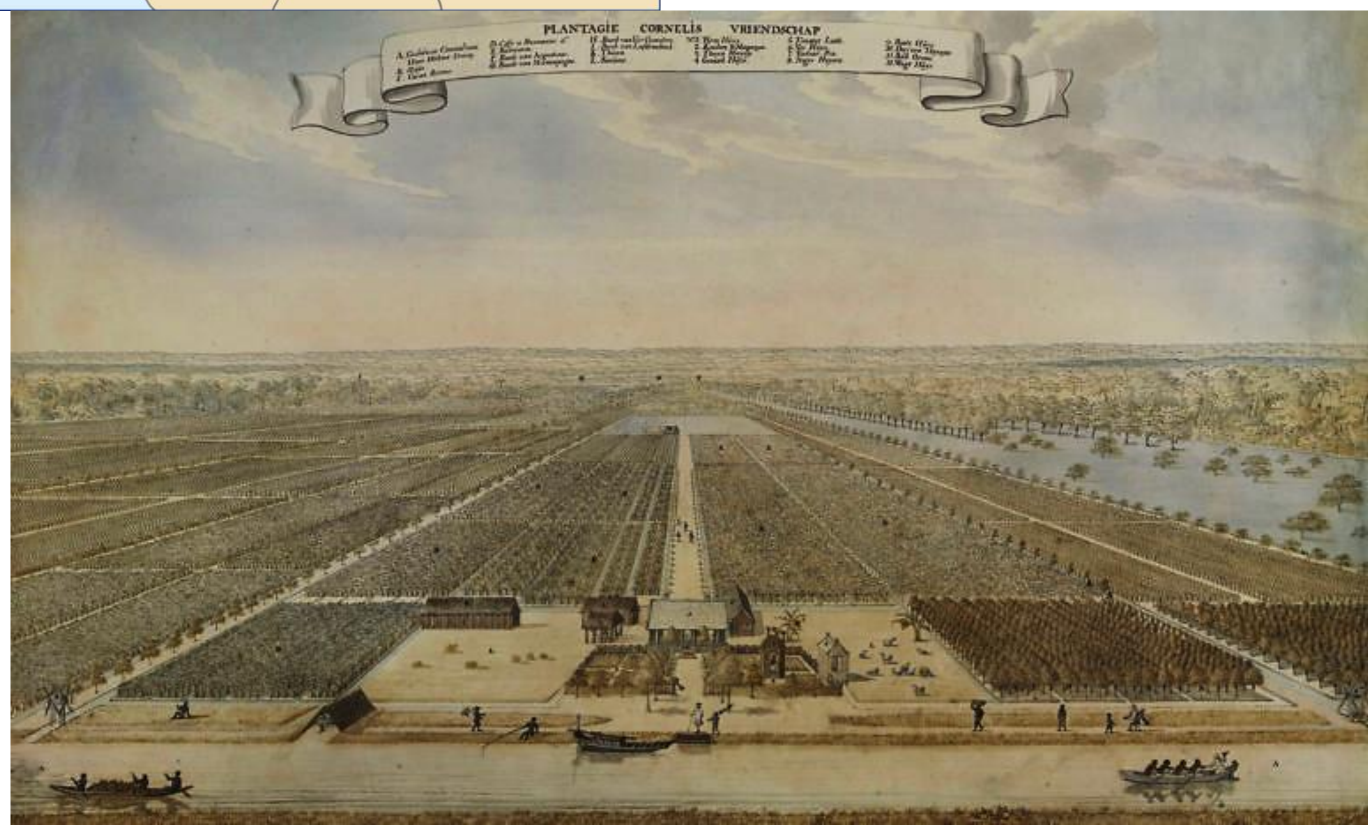
- Governed by Dutch colonial government
  - Positions filled by planter elite (wealthy, well-established)
  - Dutch legal system → secure property rights
  - Plantations collateral for creditors (including enslaved people)

- Merchant-banks (Amsterdam) are key intermediaries
  - Arrange imports, exports, short-term funding (bills of exchange)
  - Provide long-term funding through MBS (*negotiaties)*
  - Represented by local agent (3-month voyage)

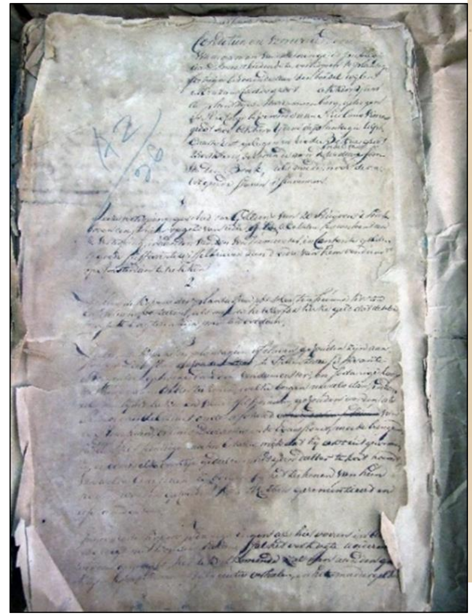
# Plantation MBS

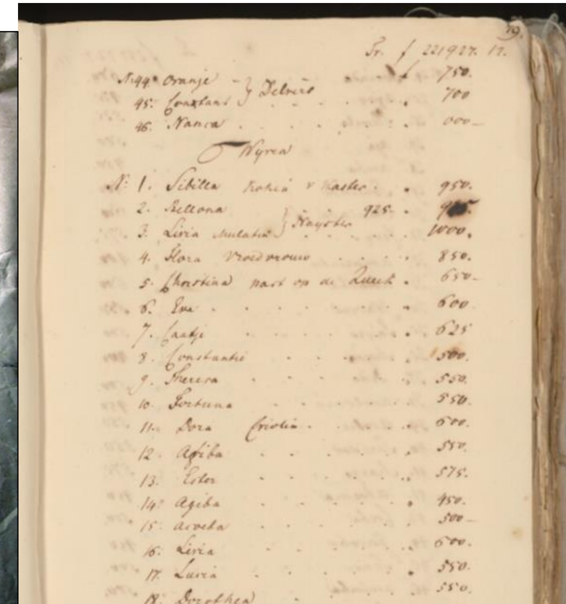
- MBS: standardized and risky
  - Mortgage sum up to 5/8$^{th}$ of appraised value (industry standard)
  - Mortgage interest rate 6%
  - MBS spread ≈ 350 bps (full interest passed on)

- MBS credit risk with investors
  - Sophisticated investors (highest wealth classes, rentiers, businesspeople)


PLANTAGIE CORNELIS VRIENDSCHAP

# Sources: entire securitization chain





- Plantations
  - Mortgage contracts
  - Appraisal reports
  - Sale transactions
- MBS
  - *Negotiatie* contracts
  - Auction prices in Amsterdam
- Bankers
  - Notary deeds, bank records, directories, census, genealogical information
- Investor portfolio holdings
  - Estate tax records
- Sources:
  - Notarial Archives of Amsterdam and of Surinam
  - Mercurius and auction record
  - Amsterdam Bank of Exchange (ABE)
  - Other: Van de Voort, Elias, Kohier Personele Quotisatie 1742, …

# Merchant-bank reputation (1)

- Reputation:
  - Business value at risk from misconduct

- How to capture?
  - Size of “outside” business (Mathis et al. 2009)
  - Size of security business ambiguous: larger $\rightarrow$ more long-term profits at risk + more short-term profits gained from misrepresentation
  - Size of security business endogenous: may reflect opportunistic behavior

- Our measure:
  - Value and prestige of bank office
  - Reflects how established bank is, primarily in other business (MBS market = new)
  - Easily observable to investors
  - Correlates with other reputation measures

# Merchant-bank reputation (2)

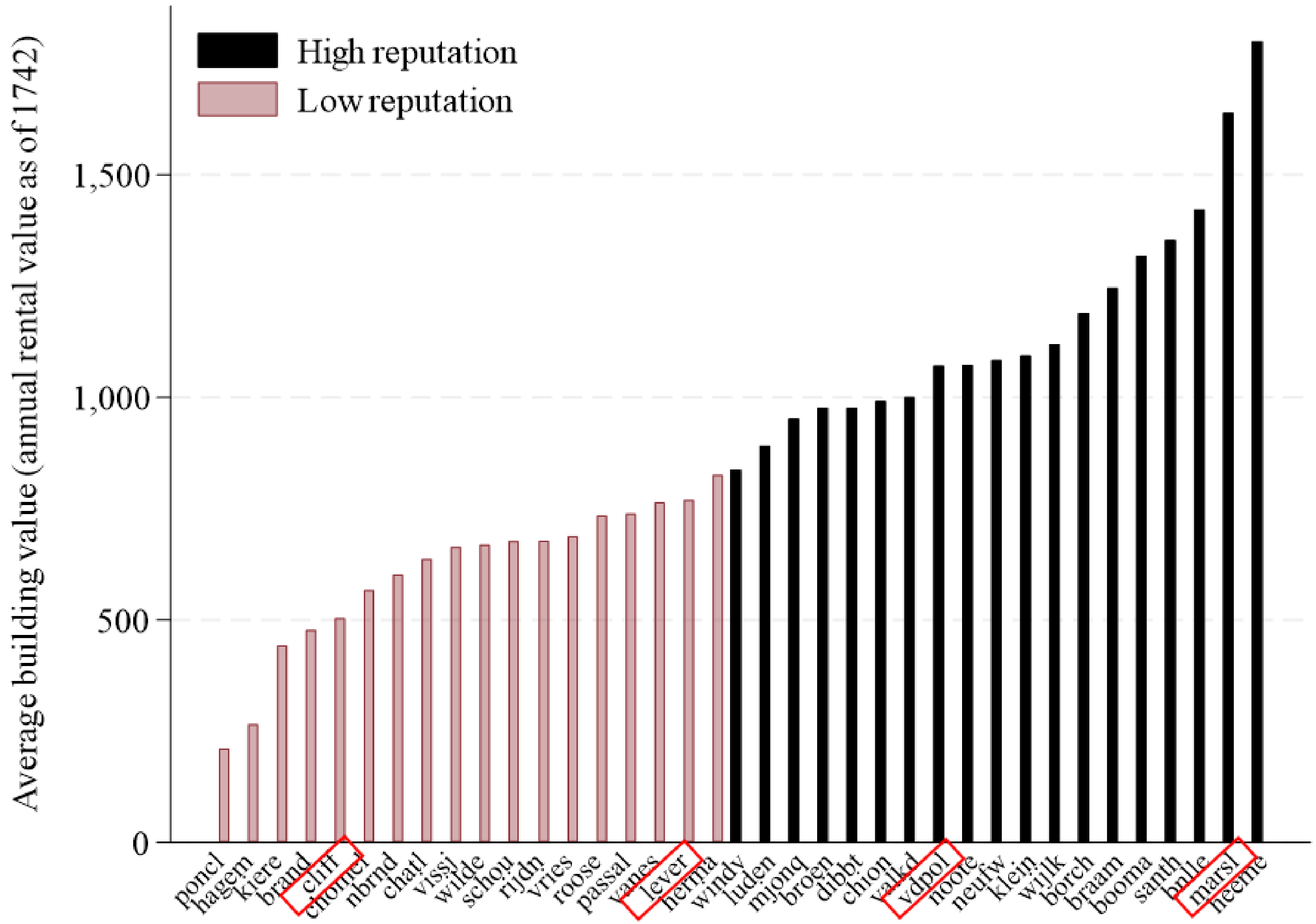
**Jan & Theodore van Marselis**

- Elite (Amsterdam city government)
- Large outside business (sovereign bonds Denmark, trade with France, Italy, Eastern Mediterranean)

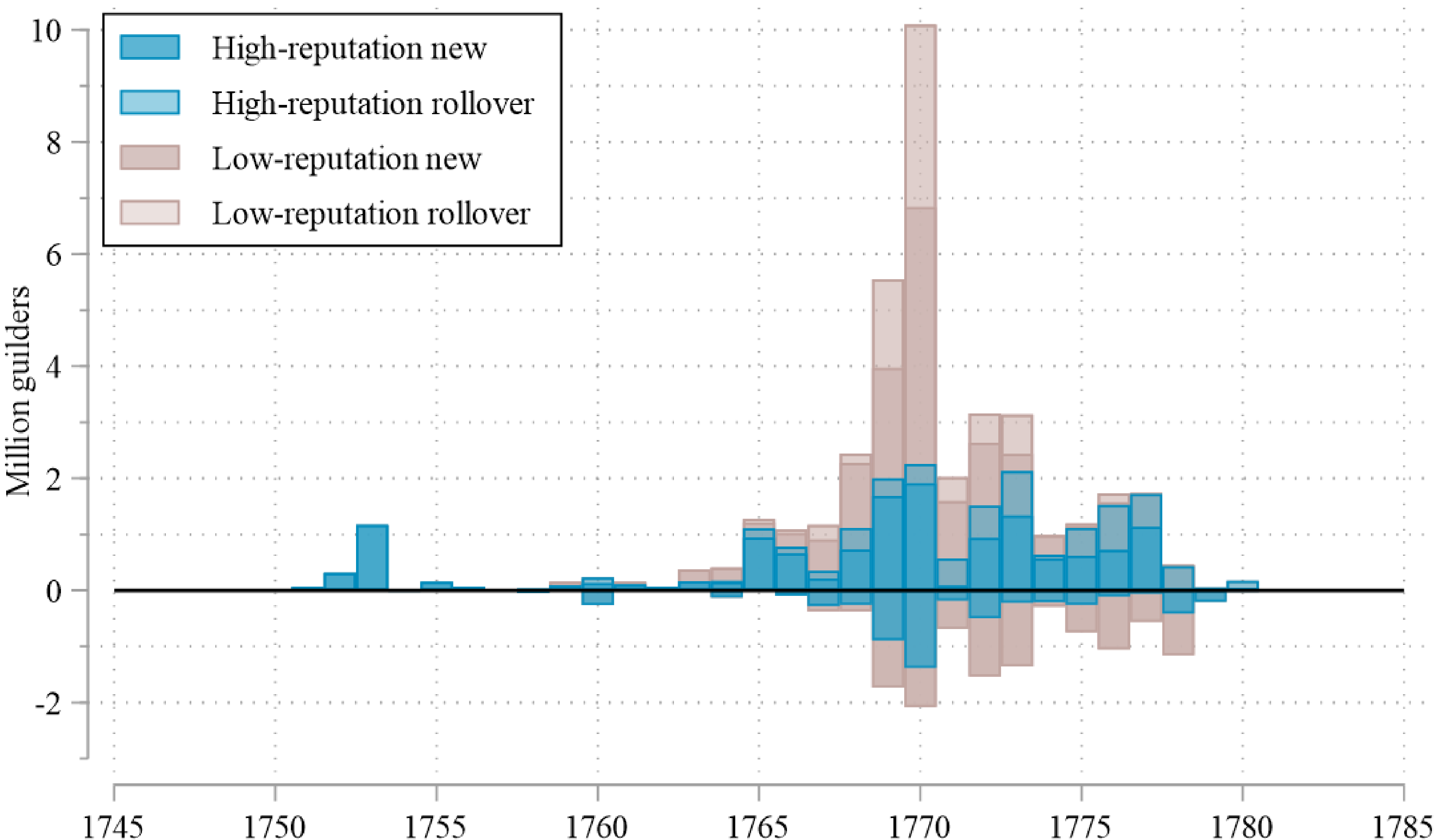
**Lever & De Bruyne**

- Non-elite
- plantation MBS focus

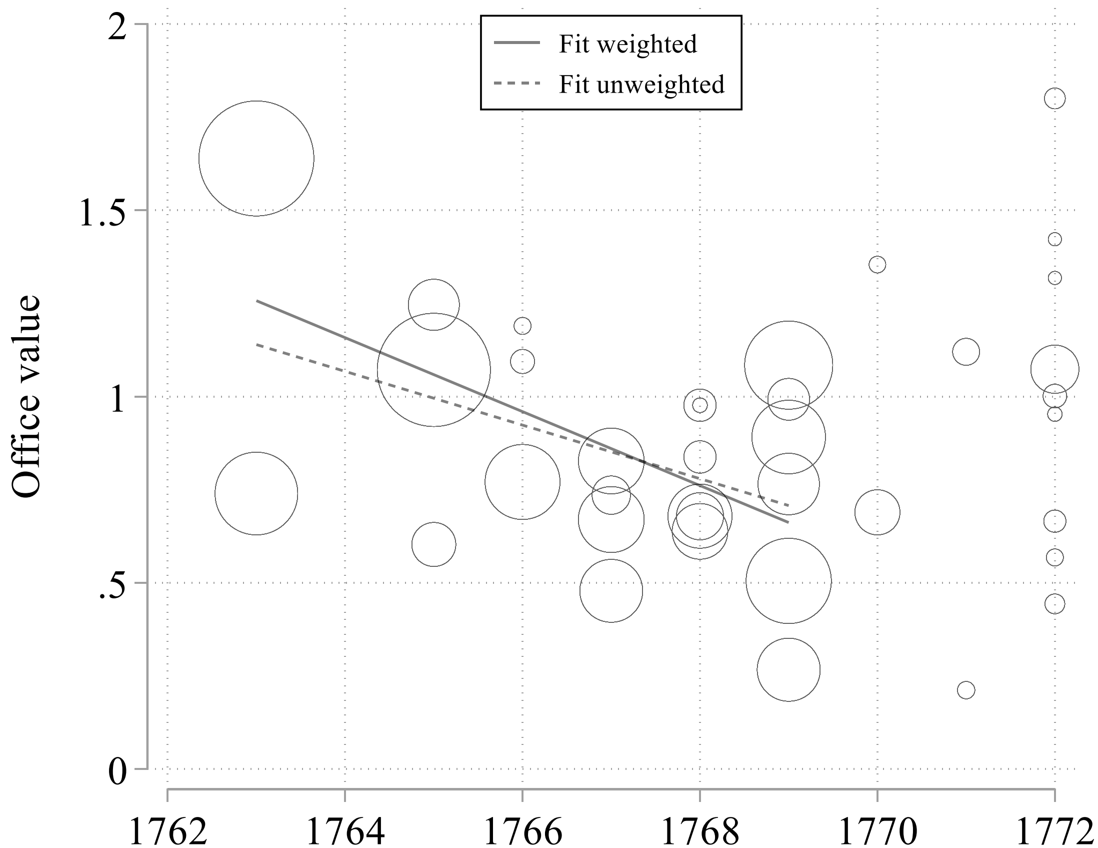
# Merchant-bank reputation (3)



# Plantation mortgage volume

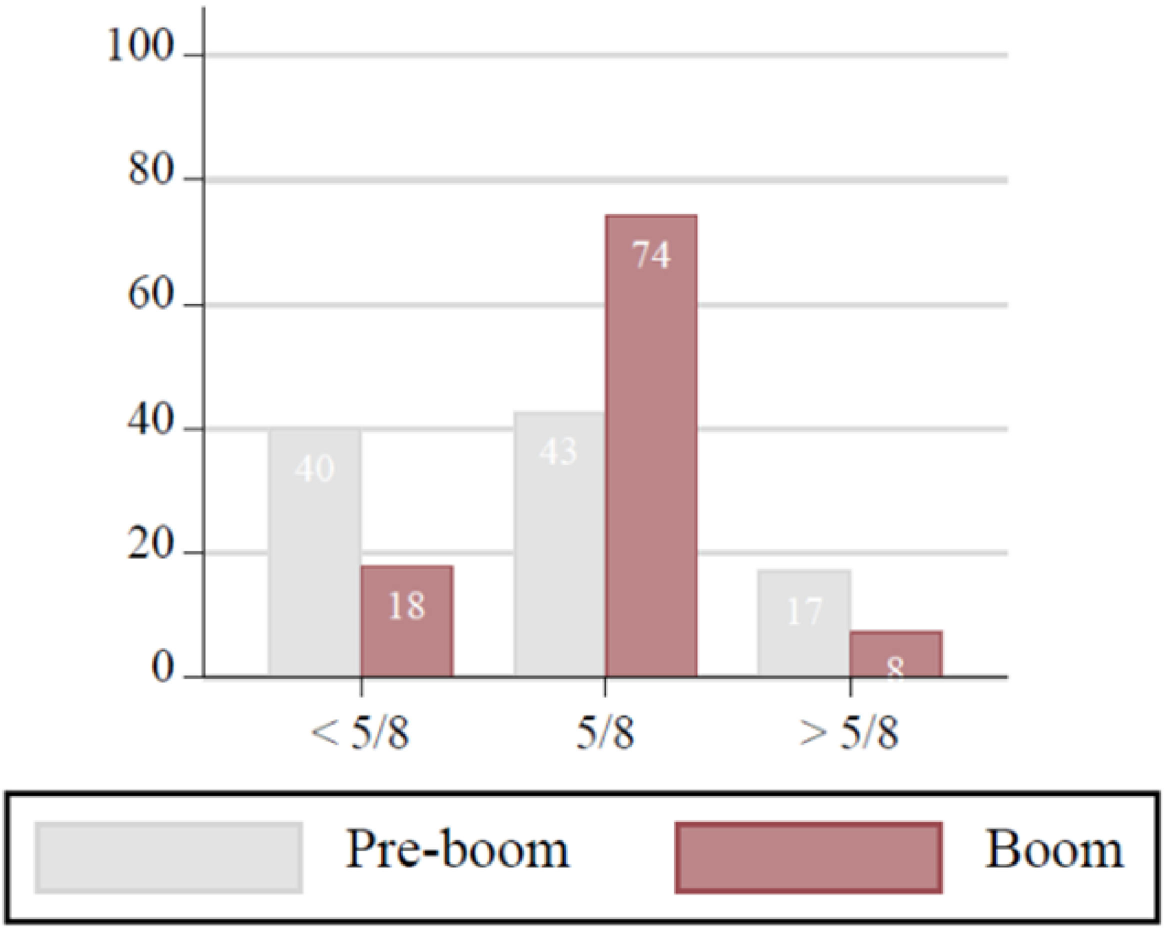


# Extensive margin: MBS market entry

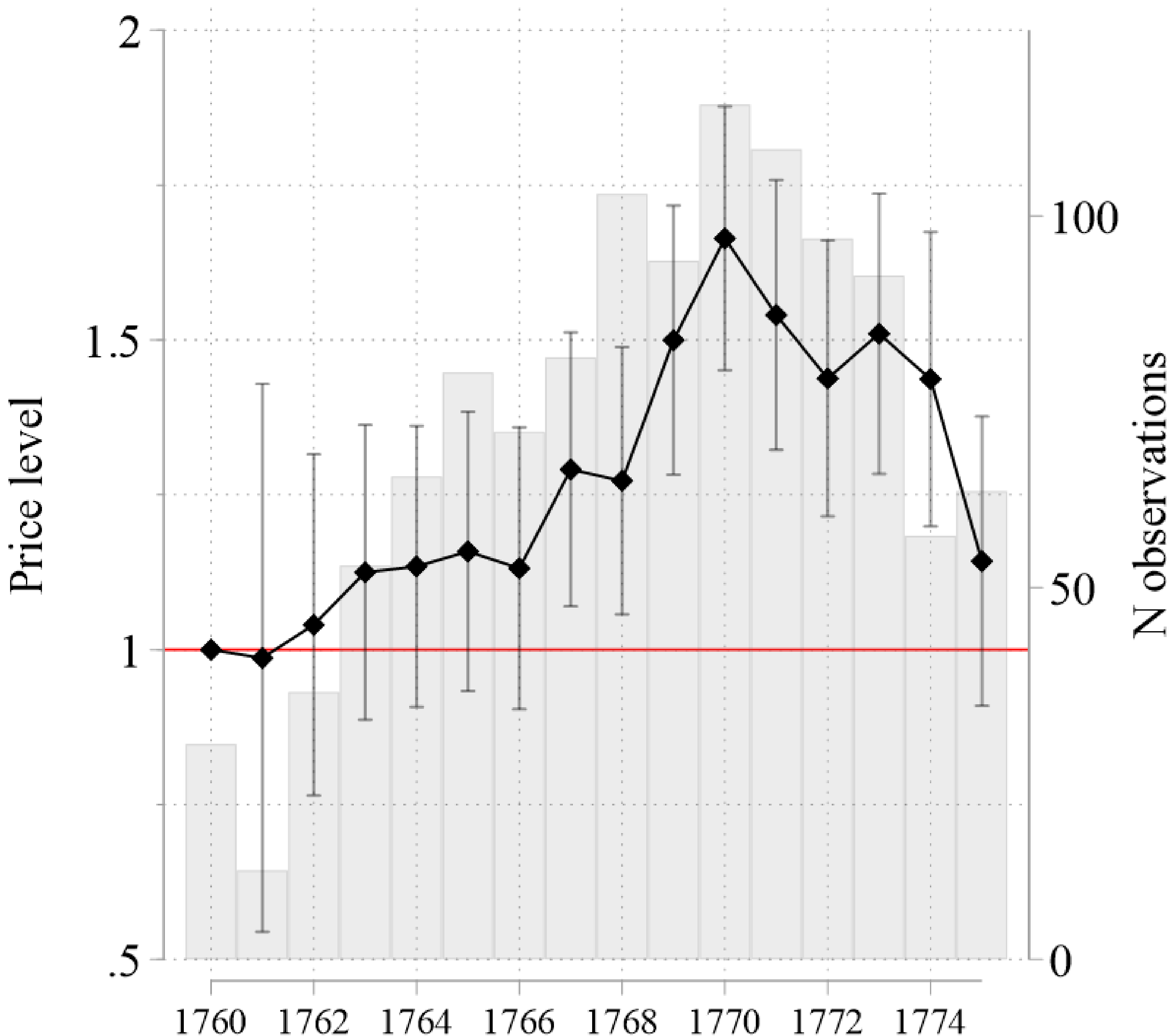



- Explanation: initially only high-reputation banks (substantial outside activities)
- Market more established over time → expected future profits increase
- Low-reputation banks can join (disciplined by future MBS profits)

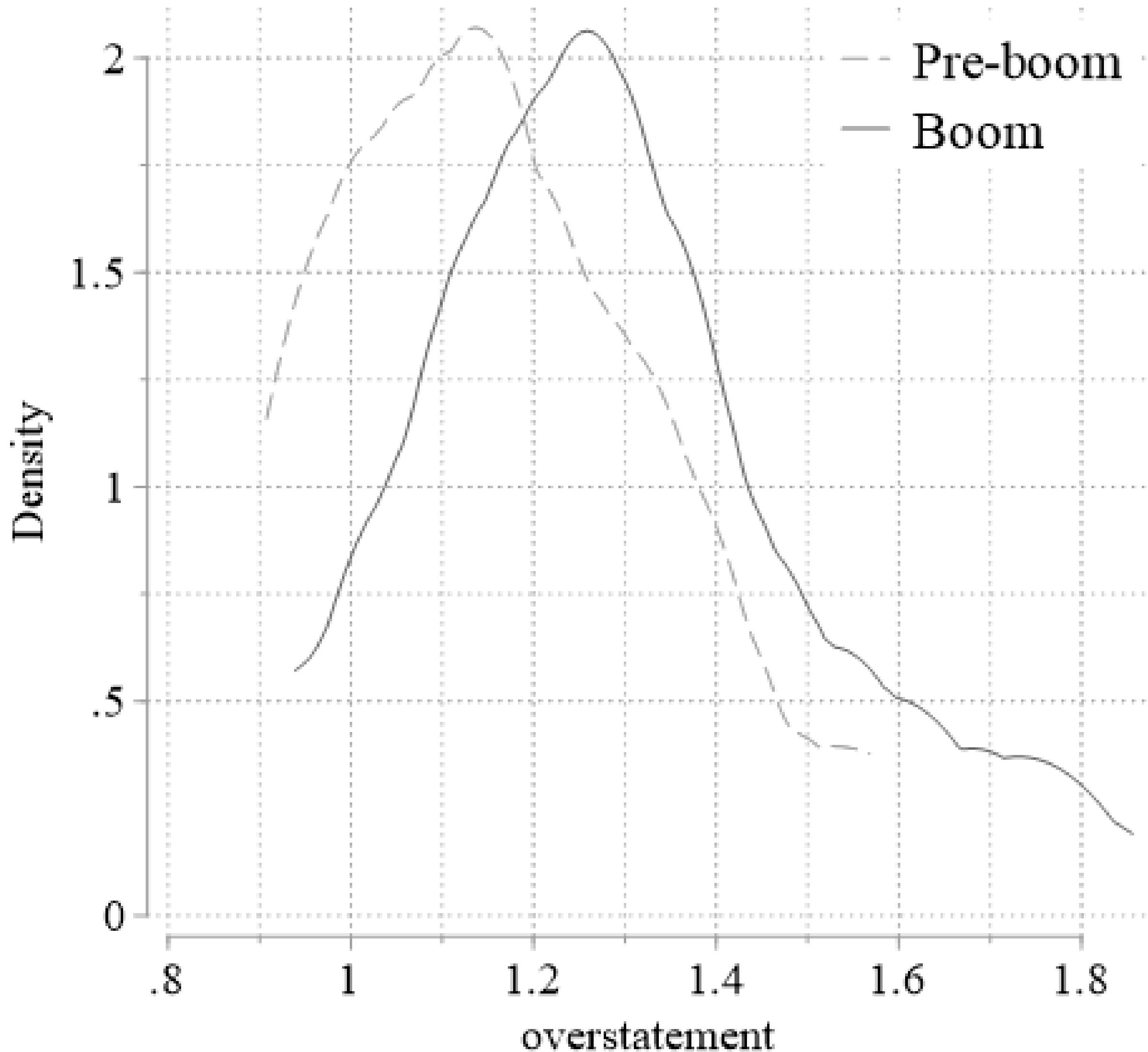
# Clustering LTVs at 5/8 during boom (1769-1770)



# Plantation valuation



# Appraisal overstatements



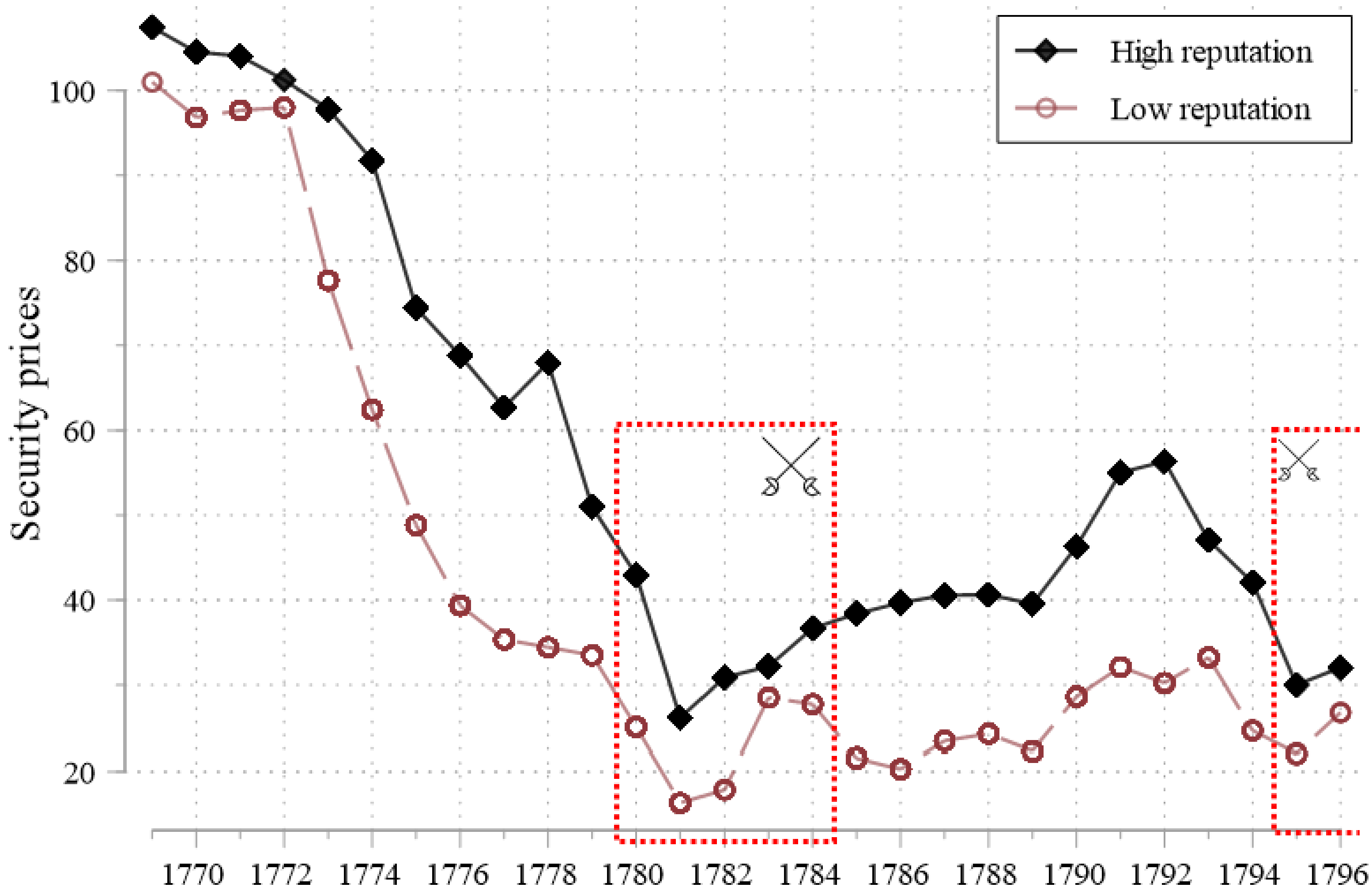
# Underlying mortgage quality

- Measure of planter's leverage: **LTF**: loan-to-fundamentals
  - Fundamentals: plantation components valued at 1756-1760 prices
  - → LTV adjusted for price changes in plantation components over time
- Measure of planter quality: **Non-elite borrower**
  - Borrower not part of colonial administration

| | High-reputation | | Low-reputation | | |
|---|---|---|---|---|---|
| | N | Mean | N | Mean | Mean difference |
| *Pre-boom* | | | | | |
| LTF | 40 | 0.90 | 49 | 0.95 | -0.05 (-0.69) |
| Non-elite borrower | 77 | 0.51 | 64 | 0.63 | -0.12 (-1.48) |
| Non-elite agent | 66 | 0.30 | 49 | 0.40 | -0.11 (-1.19) |
| *Boom* | | | | | |
| LTF | 15 | 1.19 | 100 | 1.45 | -0.26* (-1.88) |
| Non-elite borrower | 29 | 0.26 | 113 | 0.61 | -0.35** (-3.58) |
| Non-elite agent | 26 | 0.33 | 112 | 0.54 | -0.22** (-2.08) |

- Explanation: banks observe impending market collapse before investors
- Low-reputation bankers (limited outside business) now little to lose

# Bust: MBS prices



# MBS prices & mediation analysis

| | (1) Price | (2) Price | (3) Price | (4) Price | (5) Price |
|---|---|---|---|---|---|
| High-reputation (Off. val. ≥ median) | 17.46*** | 11.87*** | 10.27*** | 7.26** | 4.73 |
| | (3.42) | (5.02) | (3.66) | (2.40) | (1.22) |
| Nonelite Agent | | | -6.38 | -7.12* | -7.06* |
| | | | (-1.54) | (-1.86) | (-1.78) |
| Nonelite Borrower | | | | -8.25 | -9.97* |
| | | | | (-1.57) | (-1.93) |
| LTF | | | | | -6.93 |
| | | | | | (-1.13) |
| Joint ACME | | 5.59 | 7.19 | 10.20 | 12.74 |
| [p-value] | | [ 0.19] | [ 0.13] | [ 0.10] | [ 0.06] |
| ACME | | 5.59 | 1.60 | 3.01 | 2.53 |
| | | [ 0.19] | [ 0.24] | [ 0.20] | [ 0.17] |
| Auction Year | Yes | Yes | Yes | Yes | Yes |
| Origination Year | No | Yes | Yes | Yes | Yes |
| Weights | MBS | MBS | MBS | MBS | MBS |
| N clusters | 46 | 46 | 46 | 46 | 46 |
| *N* | 4605 | 4605 | 4605 | 4605 | 4605 |
| $R^2$ | 0.72 | 0.78 | 0.78 | 0.79 | 0.79 |

# Heterogeneous exposure to reputational losses (1)

- Large share in short-term profits after death business partner
  - Death of a partner → heirs have claims on future profits
  - Example Van de Poll & Co.
    - Managed by only one partner after the death of brother
    - Agreement nephew becomes partner when coming of age and share in partnership's profits
    - Managing partner gets profits in the short-run; has to share them in the future.

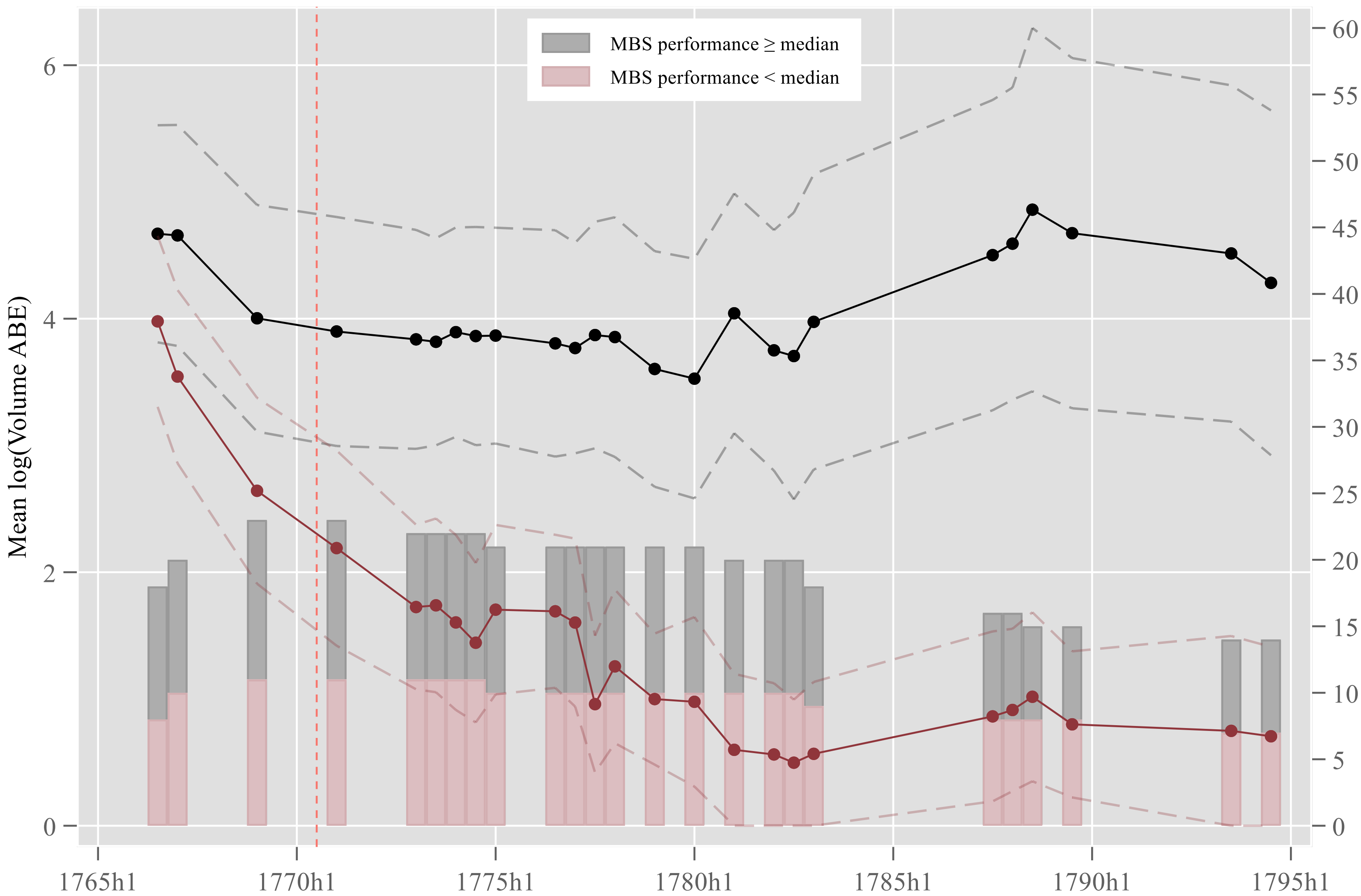
- Shielded personal assets: married into wealth
  - Pre-nubs shield wealth from unlimited liability
  - Negative effects from reputational losses mitigated by wife's (independent) wealth → lower (effective) risk aversion

# Heterogeneous exposure to reputational losses (2)

| | High-reputation | | Low-reputation | | | |
|---|---|---|---|---|---|---|
| | N | Mean | N | Mean | Diff. | t-stat |
| Short-term profits | 16 | 0.25 | 30 | 0.23 | 0.02 | 0.12 |
| Married wealth | 16 | 0.55 | 30 | 0.48 | 0.07 | 0.57 |

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| | Price | Price | Price | Price | Price |
| Office value | 28.99*** | 28.42*** | 30.92*** | 27.20*** | 40.00*** |
| | (6.49) | (6.17) | (6.33) | (6.75) | (4.75) |
| Heterogeneity variable | | -8.12** | -9.38*** | -7.98* | -8.99** |
| | | (-2.17) | (-3.04) | (-2.06) | (-2.38) |
| Heterogeneity variable*Office value | | | -28.19* | | -24.91* |
| | | | (-1.90) | | (-2.01) |
| Variable | | Short-term profits | Short-term profits | Married wealth | Married wealth |
| Year | Yes | Yes | Yes | Yes | Yes |
| Weights | Bank | Bank | Bank | Bank | Bank |
| N clusters | 23 | 23 | 23 | 23 | 23 |
| *N* | 4605 | 4605 | 4605 | 4605 | 4605 |
| $R^2$ | 0.74 | 0.76 | 0.76 | 0.76 | 0.76 |

# Reputational damage



# Alternative explanations – Skill

| | High-reputation | | Low-reputation | | |
|---|---|---|---|---|---|
| | N | Mean | N | Mean | Mean dif. |
| Firm age | 19 | 14.0 | 18 | 7.8 | 6.17 (0.67) |
| Partner age | 19 | 45.9 | 18 | 37.9 | 8.01 (0.95) |
| N Surinam deeds | 19 | 8.5 | 18 | 8.1 | 0.47 (0.00) |
| Surinam background (1/0) | 19 | 0.37 | 18 | 0.17 | 0.20 (1.38) |

| | (1) Price | (2) Price | (3) Price | (4) Price | (5) Price | (6) Price | (7) Price | (8) Price | (9) Price |
|---|---|---|---|---|---|---|---|---|---|
| High-reputation | $15.07^{***}$ | | $14.36^{***}$ | | $12.32^{***}$ | | $14.75^{***}$ | | $14.44^{***}$ |
| | (3.59) | | (3.35) | | (3.37) | | (3.61) | | (3.57) |
| Skill | | $3.04^{*}$ | 0.79 | $7.59^{***}$ | $5.59^{***}$ | $3.51^{*}$ | $3.19^{*}$ | 8.84 | 7.19 |
| | | (1.84) | (0.55) | (3.21) | (3.45) | (1.99) | (2.06) | (1.55) | (1.67) |
| Skill variable | | Log(Firm age) | | Log(Partner Age) | | Log(N Surinam deeds) | | Surinam background (1/0) | |
| *N* | 4605 | 4605 | 4605 | 4605 | 4605 | 4605 | 4605 | 4605 | 4605 |
| $R^2$ | 0.73 | 0.68 | 0.73 | 0.71 | 0.75 | 0.68 | 0.74 | 0.68 | 0.73 |

# Conclusions

- Bank reputation improves quality and performance of opaque securities, but only if bankers have:
  - Low discount rate (no outsized share in short-term profits after death partner)
  - Significant personal exposure (not married into wealth)

- As market establishes over time, low-reputation bankers enter (exposing investors to losses)
  - Behavioral explanation? → market dominated by sophisticated investors
  - Rational explanation? → banks observe impending market collapse before investors do; low-reputation banks have little to lose and start misbehaving (earlier, they cared about continuing in MBS market)

- Implications for the theory:
  - No evidence for ambiguous effects of reputation *per se*
  - High reputation bankers keep behaving, even at the height of the boom