Unraveling Information Sharing in Consumer Credit Markets

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TransUnion (the data provider) has the right to review the research before dissemination to ensure it accurately describes TransUnion data, does not disclose confidential information, and does not contain material it deems to be misleading or false regarding TransUnion, TransUnion's partners, affiliates or customer base, or the consumer lending industry. Calculated (or derived) based on credit data provided by TransUnion through a relationship with the Kilts Center for Marketing at The University of Chicago Booth School of Business. No individual firms are identified in these data.

Breakdown in information sharing

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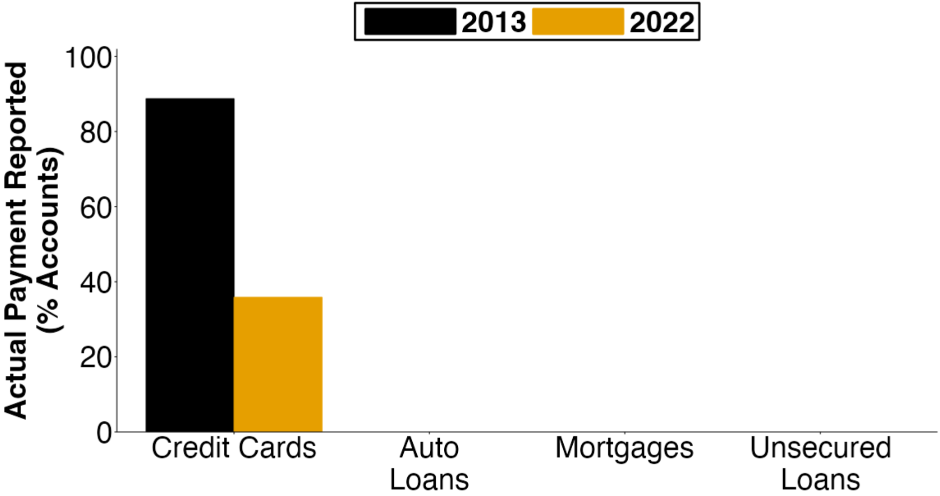
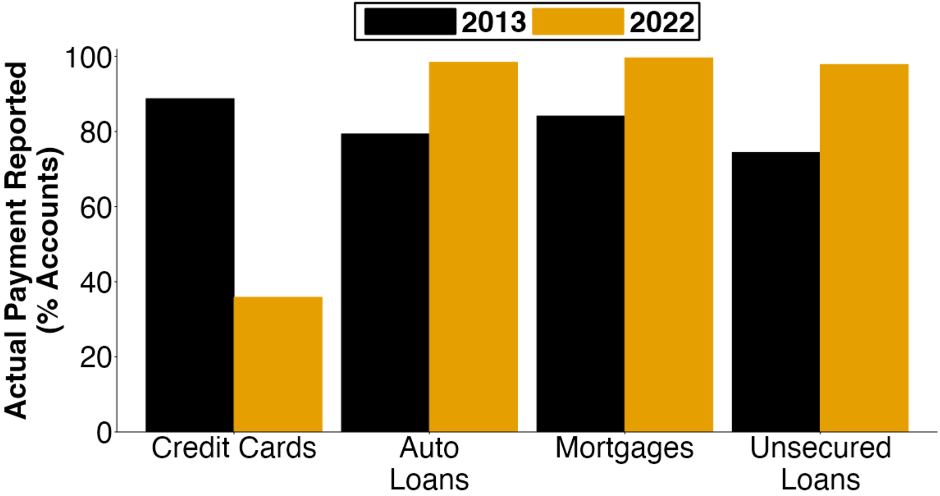


Breakdown in information sharing in credit cards but not in other credit products



Key Contributions

1. **Empirically document fragility of information sharing in highly developed market**

   - Information sharing sensitive to innovations enabling targeting profitable customers
     (e.g., Diamond, 84; Ramakrishan & Thakor, 84; Pagano & Japelli, 93; Raith, 96; Bouckaert & Degryse, 06; Bergemann & Bonatti, 19; Jones & Tonetti, 20)

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   - Card tenure varies across and within credit score $\rightarrow$ need to measure lifetime profits

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4. **What information is missing in YOUR credit report and why missing?**

Four Parts to Paper

1. **Unraveling Information Sharing**
2. **Consumer Credit Profitability**
3. **Selection in Credit Card Lenders Sharing Information**
4. **Effects of Mandating Information Sharing**

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Data: TransUnion US consumer credit reports

Part 1. Unraveling Information Sharing

Describe breakdown of sharing information on actual payments in US consumer credit markets

Institutional details of innovation ("Trended Data")

"The most important tool developed…since the credit score"

- Innovation harnesses actual payments for revealing profitable consumers to target marketing
- Unraveling an unintended response to innovation

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Difference-in-differences: innovation $\rightarrow$ information sharing

- $\downarrow$ 65 p.p. in information sharing for credit cards vs. auto loans

Framework for consumer credit profitability

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Measurement error by not observing actual payments data

- Credit card spending $R^2 = 0.51$
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Predict profitability in credit cards, auto loans, & unsecured loans

- Actual payments information $\uparrow$ predicting lifetime profits:
  $+31\%$ interchange net of rewards
  $+4\%$ financing charges (interest $+$ fees) net of charge-offs

Part 3. Selection in Credit Card Lenders Sharing Information

Higher profitability & higher spending firms stop sharing information

- +31% mean and 41% variance spending
- Worst residual types remain sharing information (Akerlof-esque)

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Difference-in-differences: innovation $\rightarrow$ switching

- Heterogeneous exposure by % card balances with lenders who share information
- More exposed $\rightarrow$ more information revealed $\rightarrow$ +13% new credit cards openings

Part 4. Effects of Mandating Information Sharing: Evidence from Credit Card Limits

Effects of mandating sharing information on credit card limits

- Mandate by Federal Trade Commission
- Heterogeneous exposure by institutional feature of utilization

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Effects of mandating sharing information on credit card limits

- Mandate by Federal Trade Commission
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- $\uparrow$ 23 point credit score moving from 0 to 100% exposure
- $\uparrow$ competition with substitution from inside to outside lenders

Roadmap

1. **Unraveling Information Sharing**
2. **Consumer Credit Profitability**
3. **Selection in Credit Card Lenders Sharing Information**
4. **Effects of Mandating Information Sharing**

Thank you!

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