

Know Thyself: Free Credit Reports and The Retail Mortgage Market

AFA Ph.D. Student Poster Session at the 2021 Annual Meeting

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Introduction

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 - ▶ Despite costs: Application fee (~\$300–400), ↑ rejection probability and interest rate.

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 - ▶ Discouraged consumers: ~15% of the U.S. households (SCF 1998–2007).
 - ▶ Discouraged SME Firms: Twice the number of firms who were rejected ([Freel et al. 2012](#)).
 - ▶ Latent demand, but many might be creditworthy.

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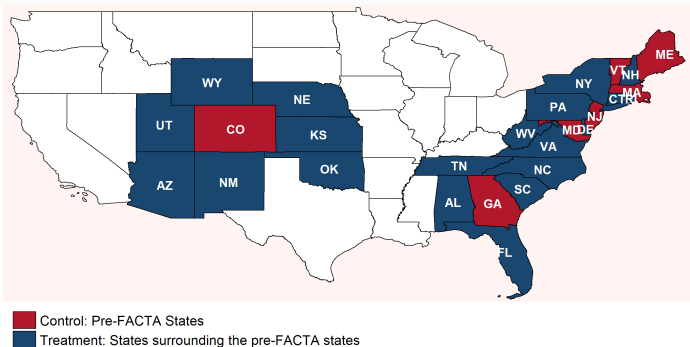
Research Question

Identify the effect of information provision to consumers at lower economic cost and **mortgage demand and approval ratio**.

- Enactment of the federal *Fair and Accurate Transactions Act of 2003*(FACTA) on December 4, 2003.
- Under FACTA, every consumer has a right to annual free credit report from each nationwide consumer reporting agency.
- Seven U.S. states **already** had free credit report laws (pre-FACTA states).
- I use a Difference-in-differences (DID) setting:
 - ▶ Control states: The seven Pre-FACTA states.
 - ▶ Treated states: States surrounding the Pre-FACTA states.
 - ▶ **Event:** Establishment of www.annualcreditreport.com in Jan 2005 to distribute Free Credit Reports.

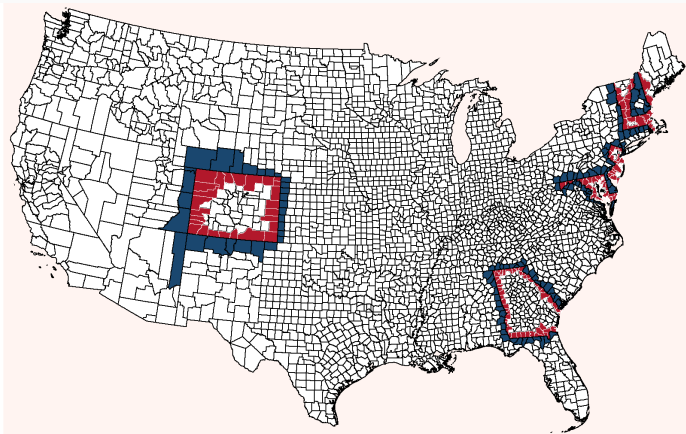
Natural Experiment: Illustration


Empirical Setting:




Natural Experiment: Illustration

Empirical Setting: Focus only on the bordering counties



 Control: Counties at the border of pre-FACTA States

 Treatment: Counties which belong to the bordering states and are adjacent to the control counties

Results

Result

$$Y_{icsjt} = \beta_0 + \beta_1 \text{Treatment}_{icsj} \times \text{Post}_t + \delta \times \text{Economic controls} + \alpha_i + \gamma_{jt} + \epsilon_{it}$$

Baseline Result

	(1)	(2)	(3)	(4)	(5)	(6)
	N	N	Aprv.	Aprv.	Δ HPI	Δ HPI
Treat \times Post	13.25*** (2.94)	15.42*** (3.65)	0.01** (2.40)	0.02*** (2.81)	1.74* (1.83)	1.82* (1.82)
Economic Controls	No	Yes	No	Yes	No	Yes
Census Tract FE	Yes	Yes	Yes	Yes	Yes	Yes
Border \times Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Cluster (County)	Yes	Yes	Yes	Yes	Yes	Yes
R ² (Adj.)	0.807	0.807	0.748	0.744	0.683	0.686
Observations	86832	84809	82691	80687	25391	25365

- Mortgage applications \uparrow by 13.8—16.0% (\$38.1 billion).
 - ▶ More consumers learned that they are creditworthy.
- Approval ratio \uparrow by 1–2 pp (~\$5.5 billion).
 - ▶ Improved borrower pool.

Takeaway:

- Good borrowers select-in. Bad borrowers exit/search suitable lenders.
 - \Rightarrow Increase in mortgage demand and improvement in borrower pool.

Result: Improvement in Borrower Pool: Subprime Population

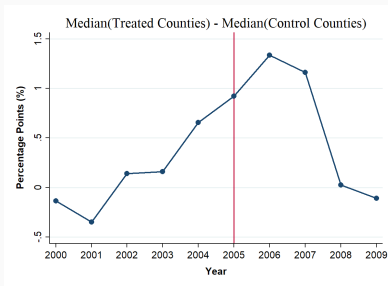


Figure 1. Median Subprime Population %

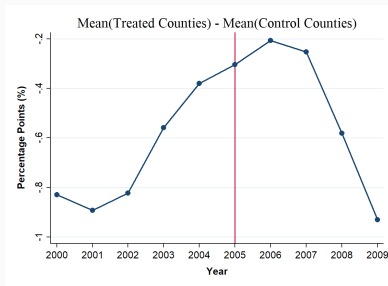


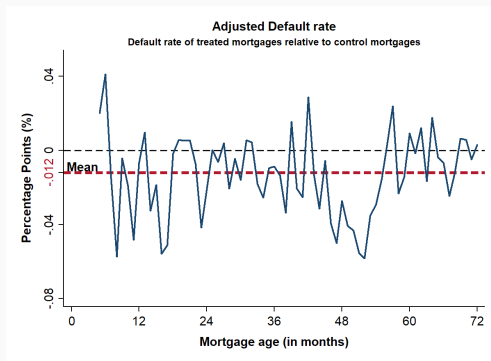
Figure 2. Mean Subprime Population %

$$\text{Median Difference} = \text{Median}(\text{Subprime \%})_{Treated} - \text{Median}(\text{Subprime \%})_{Control}$$

Takeaways:

- ↓ Sub-prime population % \Rightarrow Improved borrower pool.
- Treated areas saw improvement in borrower pool.

Result: Mortgage Default



$$\text{Adjusted default rate}_{age} = (\text{Def}_{2005,age} - \text{Def}_{2004,age})_{treated} - (\text{Def}_{2005,age} - \text{Def}_{2004,age})_{control}$$

where *Age*: months since origination, *Def*: Fraction of total mortgages of vintage year that defaults in a given month.

Takeaway: Lower *ex-post* default suggests improved borrower pool.

- Lower economic cost of credit reports \Rightarrow Improved mortgage market outcomes:
 - ▶ \uparrow in mortgage demand and approval ratio (better borrower pool).
 - ▶ More credit was originated to creditworthy borrowers.
 - ▶ \downarrow in mortgage defaults and subprime population fraction.
 - ▶ \uparrow in first-time homeowners and lender financials.
- Results are consistent with increase in consumer self-learning from credit reports.
- These findings equally apply to any general credit-related consumer decision-making.

Thank You

Any suggestions, questions, or comments are welcome.

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