“Fintech Lending: Financial Inclusion, Risk Pricing, and Alternative Information”

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Agenda

- Growth in Fintech Lending
- Objective
- Data
- Who Are Lending Club's Customers?
- Impact on Consumer Credit Access
- The Role of Alternative Information
- Risk Pricing
- Conclusions

Growth in Fintech Lending

- Consumer lending by Fintech firms reached $28.5 Billion in 2015, 12.5% of total consumer lending.
- Business lending by Fintech firms reached $5.6 Billion in 2015, 1.3% of total business lending.
- Fintech data -- based on a survey of 275 online lenders, conducted by University of Cambridge and University of Chicago.
- Fintech has been playing an increasing role in shaping financial landscapes. Banks have been concerned about the uneven playing field -- because Fintech lenders are not subject to the same rigorous oversight.

Objective

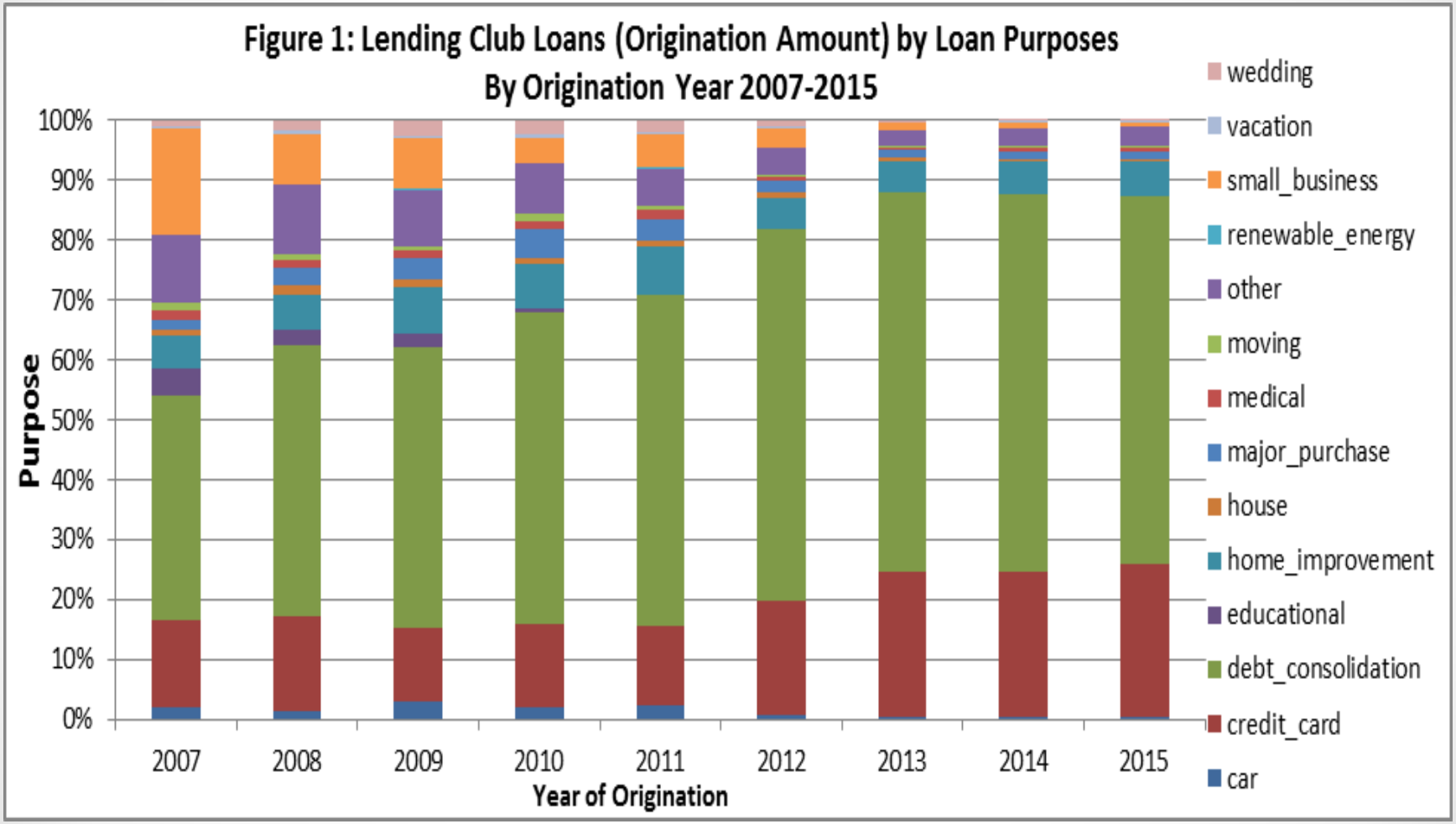
- Jagtiani and Lemieux (2016):
  - Technology has enabled lending -- increased the ability of large banks to provide small dollar loans to consumers and businesses.
  - Found an increase in bank lending in areas where larger banks do not have a physical presence
- In this paper, we explore the advantages/ disadvantages of loans made by a large Fintech lender and similar loans that were originated through traditional banking channels – pricing, credit access, etc.

Data

Data

- Fintech Loans -- Loan-level data from the Lending Club (consumer loan) platform – focusing on cards & debt consolidation loans
- Traditional (Similar) Loans -- Loan-level data from the Y-14M stress test data
- FRBNY Equifax Consumer Credit Panel
- FDIC Summary of Deposits database – for banking market concentration and bank branch information
- Economic factors -- from the Haver Analytics database

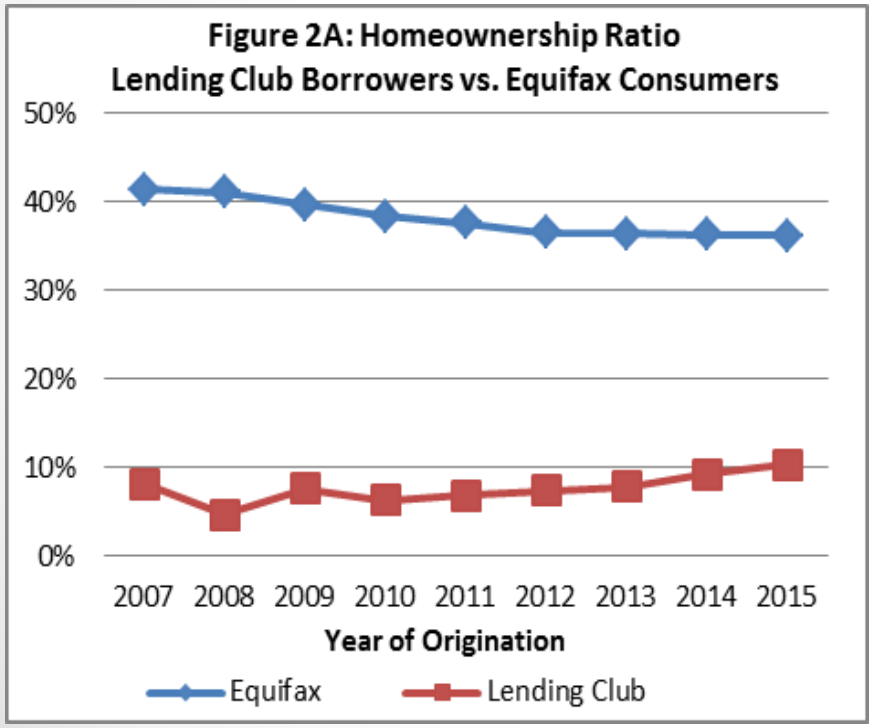
Composition of Lending Club Consumer Loans (2007-2015)



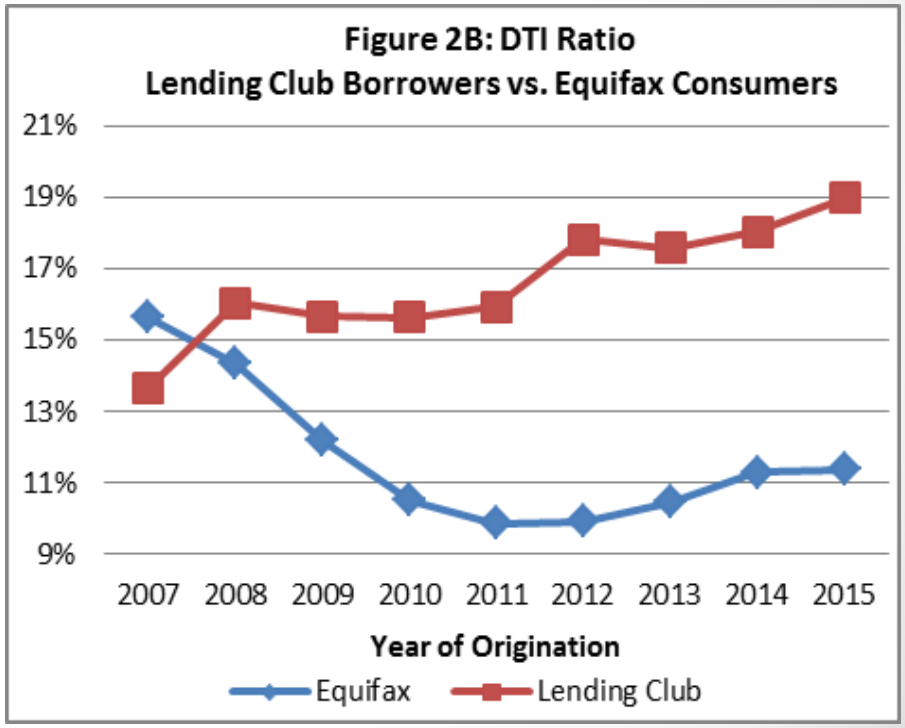
Who Are Lending Club's Customers?

Lending Club Borrowers vs. FRBNY Equifax Consumer Population

Home Ownership

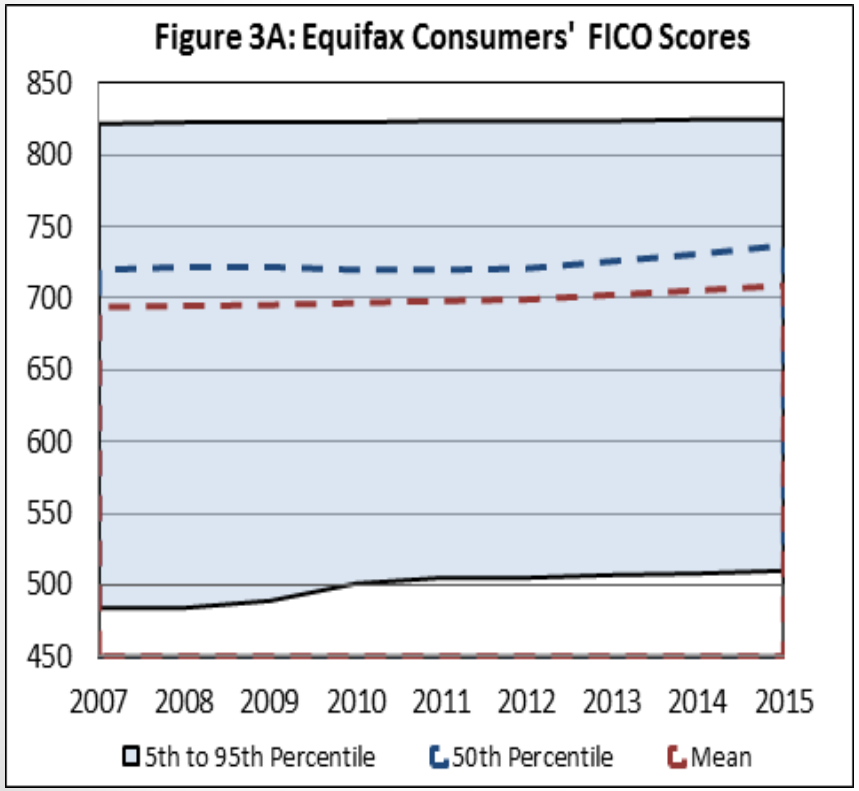


DTI Ratio

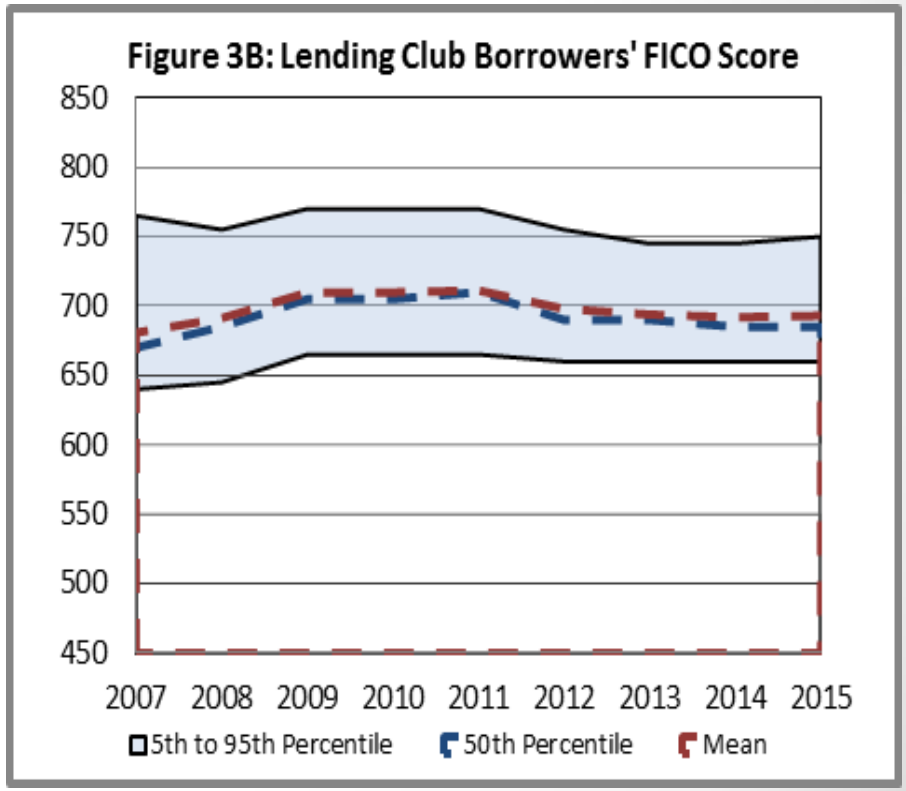


Lending Club Borrowers vs. Equifax Population: FICO Scores

Equifax



Lending Club

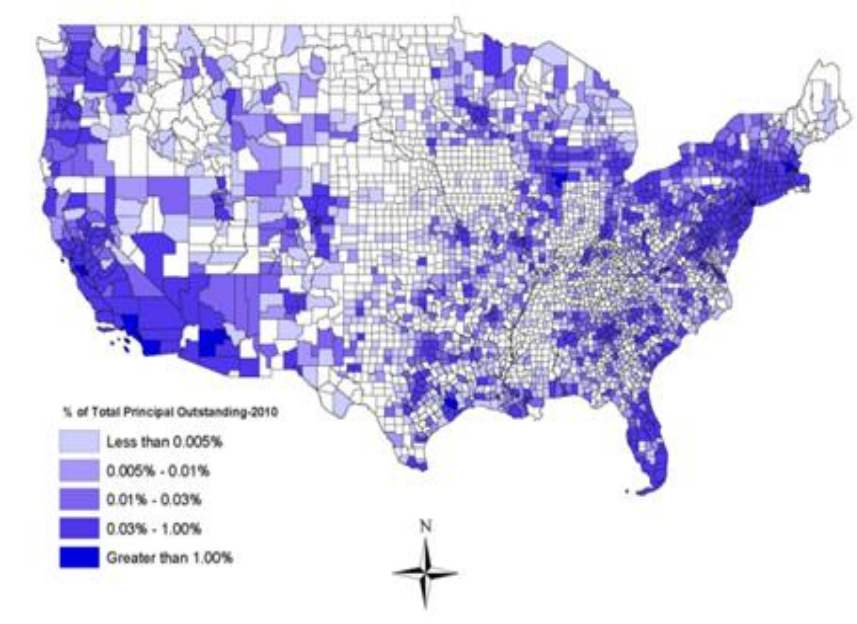


Impact on Consumer Credit Access

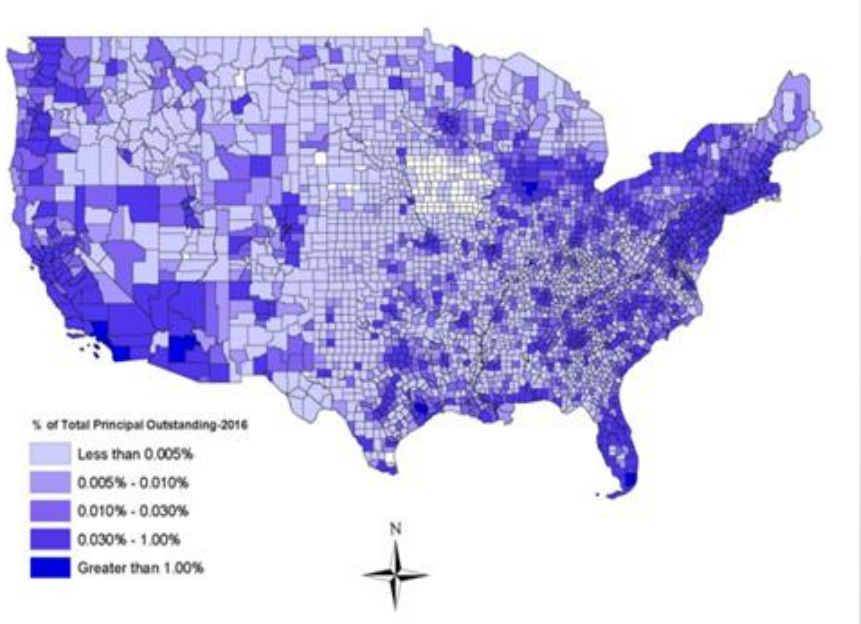
Geographic Distribution of Lending Club Portfolio (% Total Principal Outstanding)

Lending Club initially concentrated in Northeast and West Coast, today they have loans in every state.

As of 2010

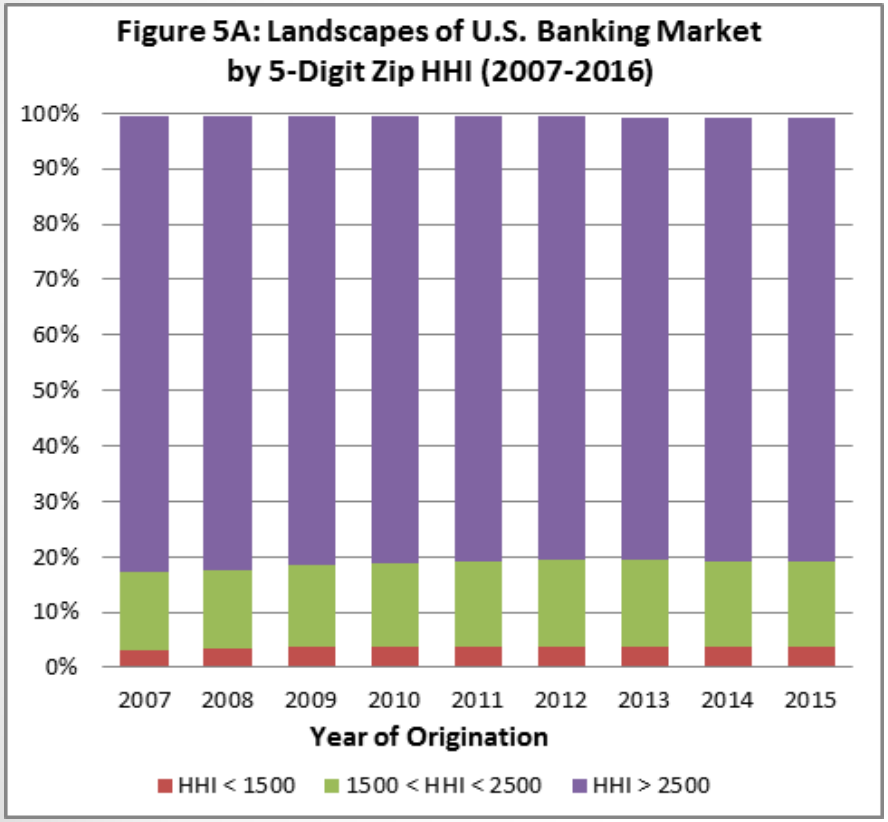


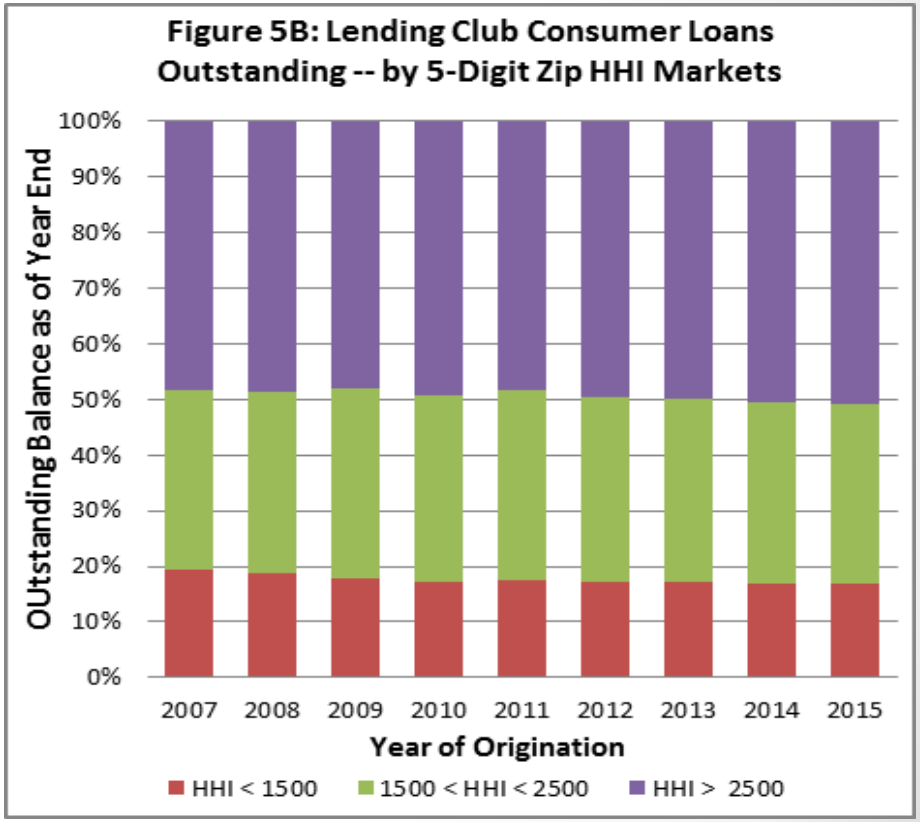
As of 2016



About 50% of Lending Club Loans are in Highly Concentrated Banking Markets

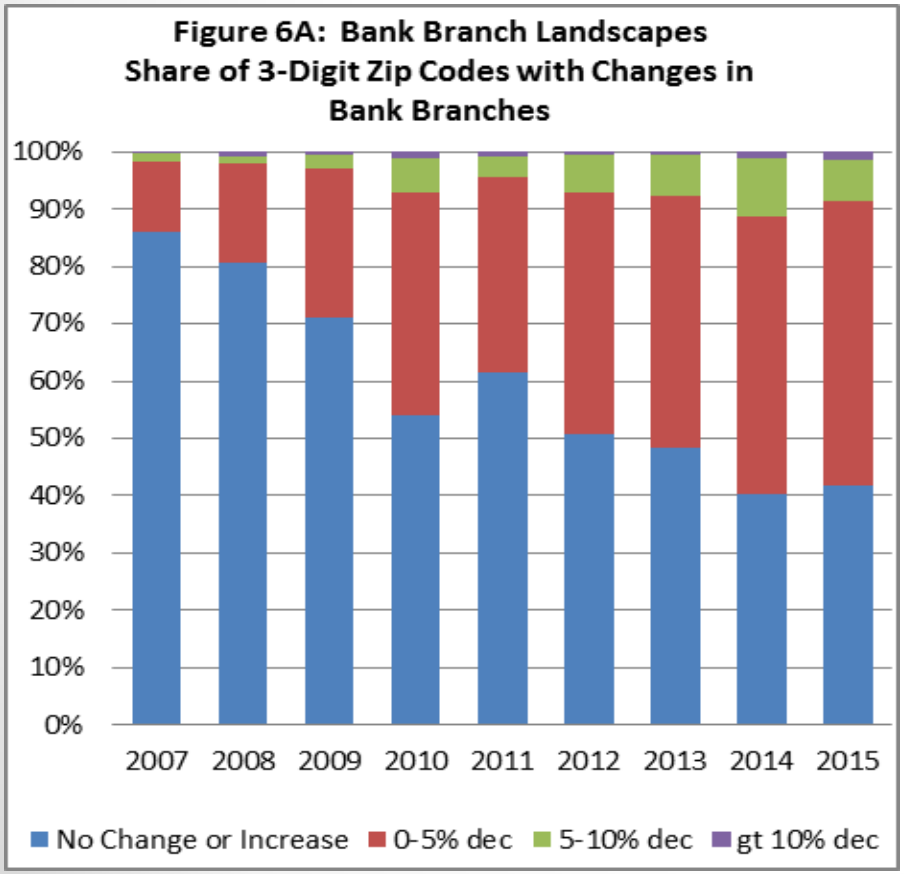
HHI based on Deposit Taking in 5-Digit Zip

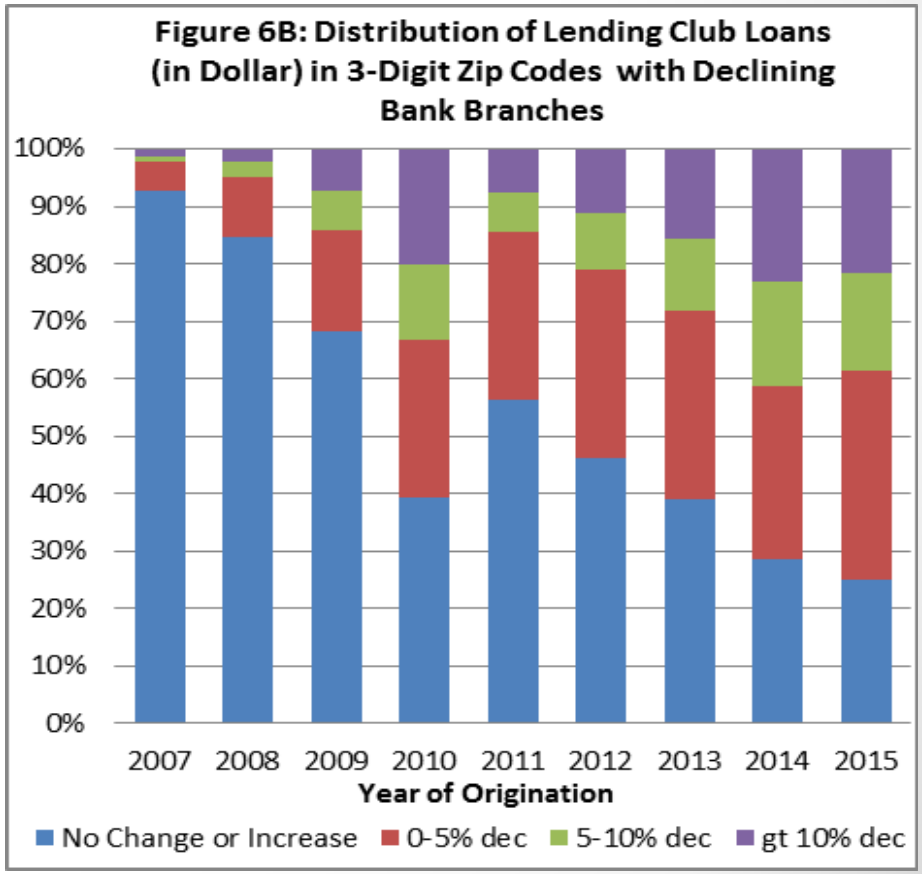




Increasingly, Lending Club is originating loans in areas where bank branches have declined.

In 2014-2015, 40% of Lending Club Loans are Originated in Areas with at least a 5% Decline in Bank Branches





Regression Result 1

- Lending Club penetrated areas that are underserved.
- The activities both in terms of loan accounts and loan amounts are positively related to the market concentration indicators.
- The decline in bank branching (within the zip code) is not statistically significant after controlling for other risk factors.
- The coefficients of the *D_HHI_1500 to 2500* and *D_HHI_2500+* indicators are significantly positive and with larger positive coefficient for the *D_HHI_2500+* indicator, after controlling for all other relevant factors that impact the lending activities.

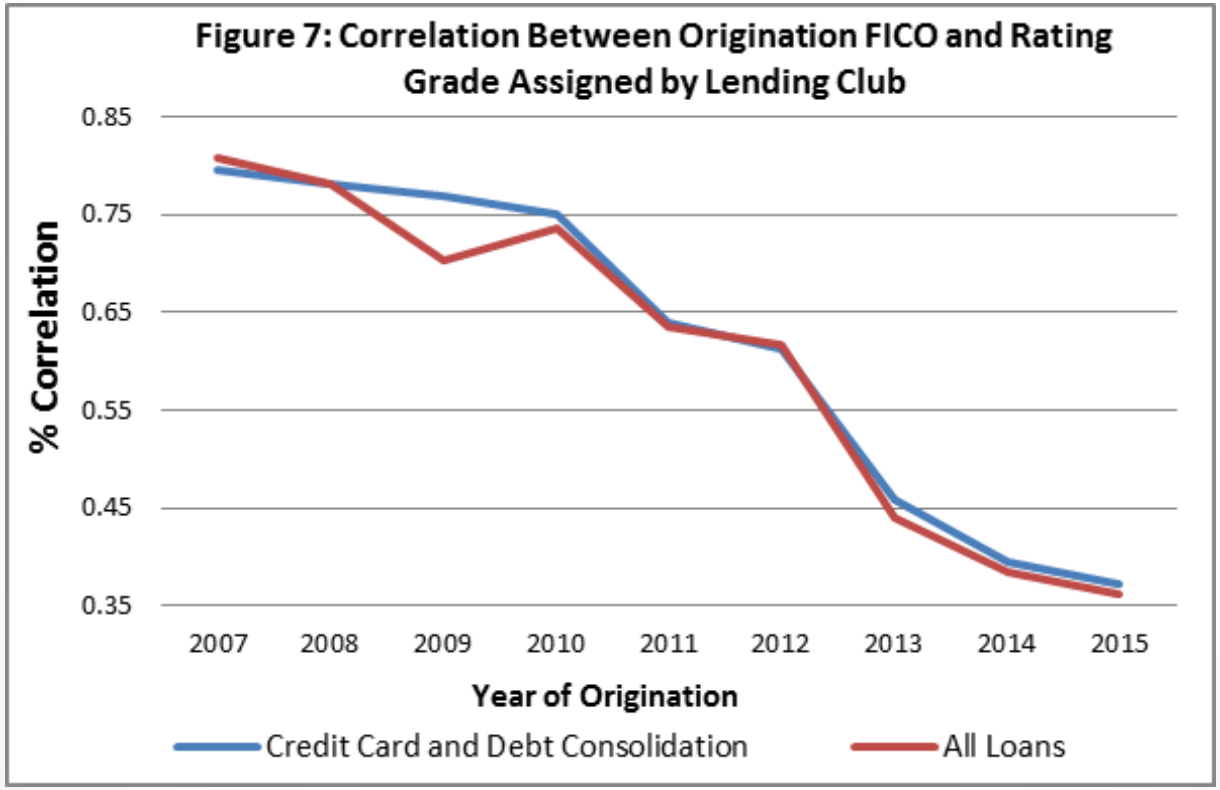
Role of Alternative Information

“By filling in more details of people’s financial lives, this information may paint a fuller and more accurate picture of their creditworthiness. So adding alternative data into the mix may make it possible to open up more affordable credit for millions of additional consumers…..”

Richard Cordray (March 2017)

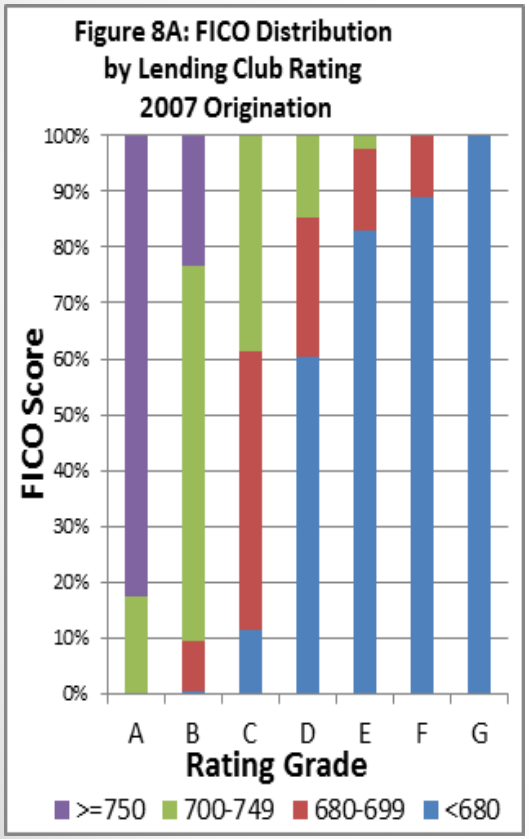
Increasing Role of Alternative Information (2007-2015)

There have been concerns about the use of alternative data by Fintech lenders and the impact this could have on financial inclusion.

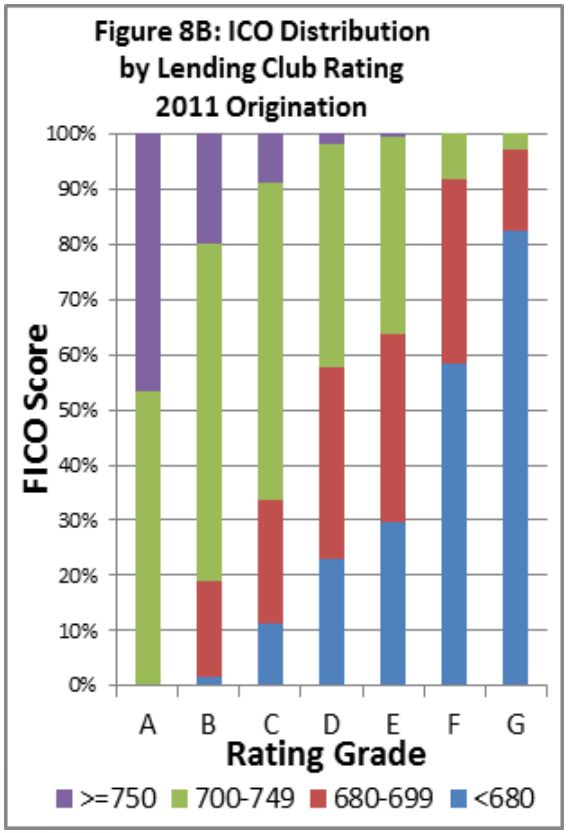


FICO vs. Rating Grades

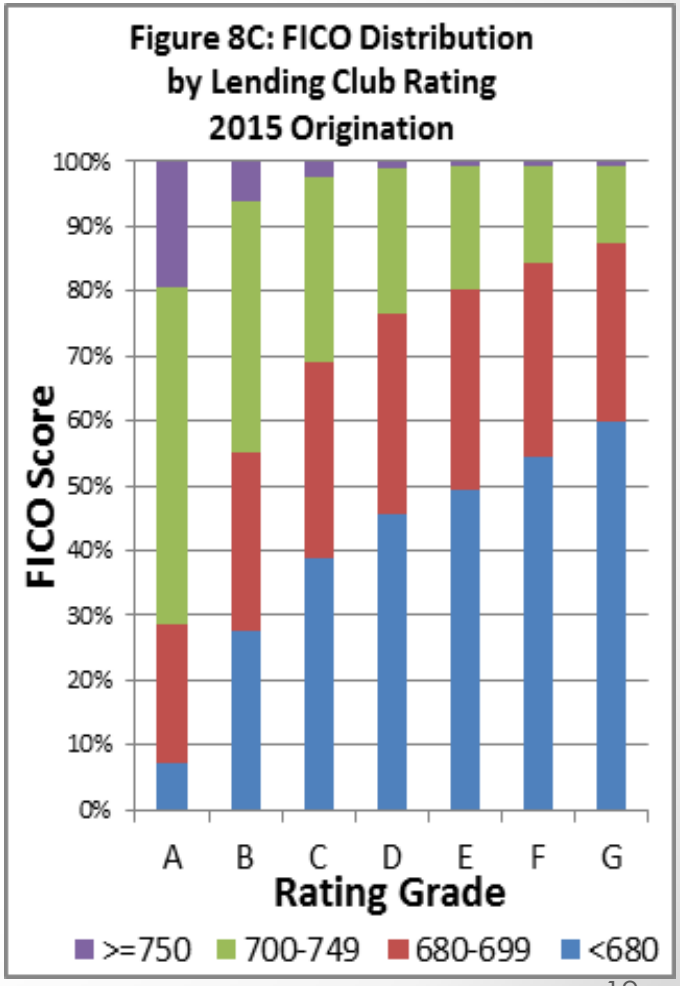
2007



2011



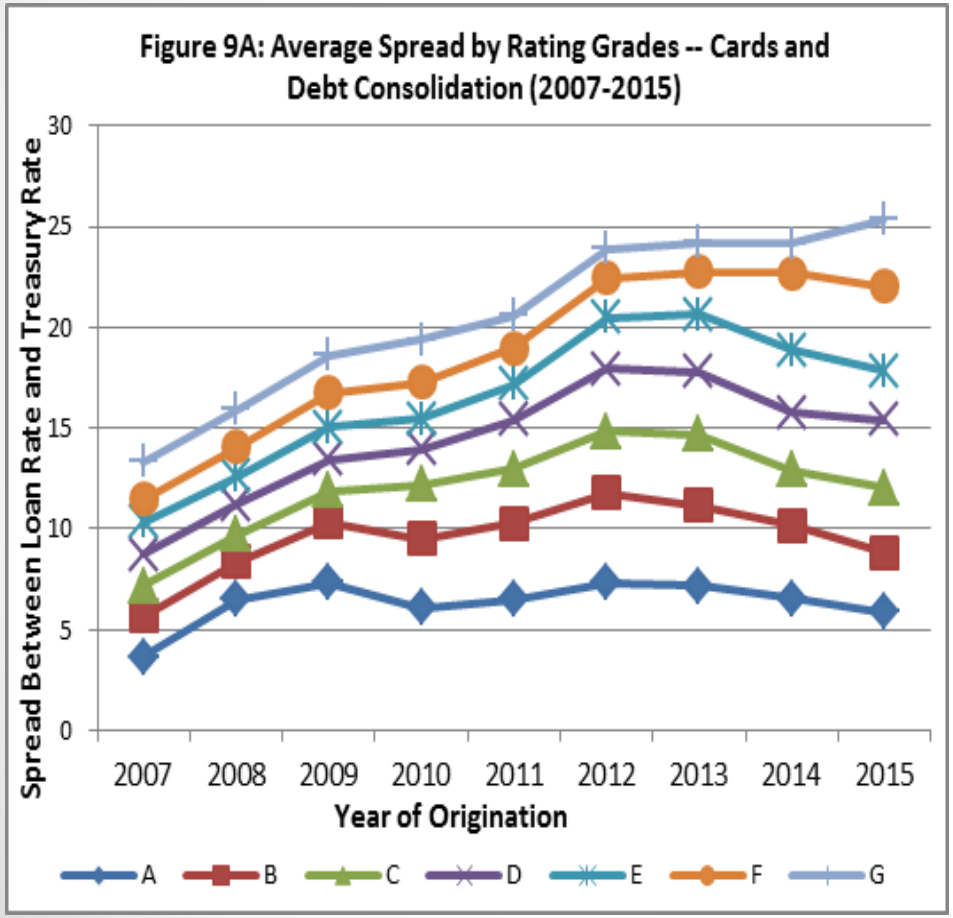
2015

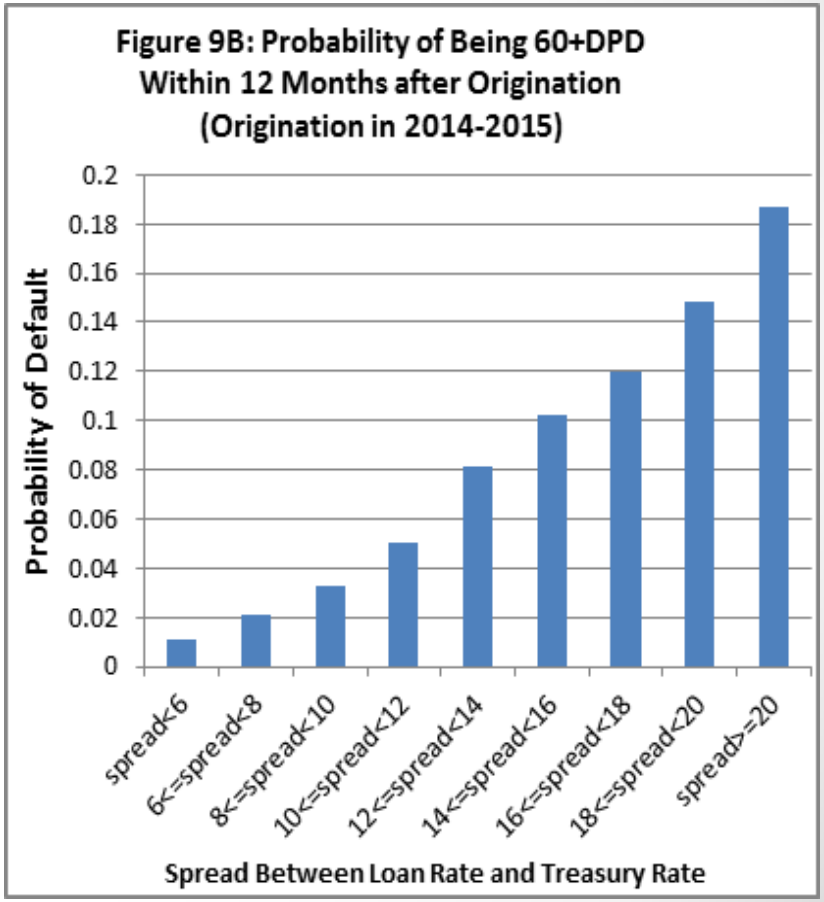


Risk Pricing

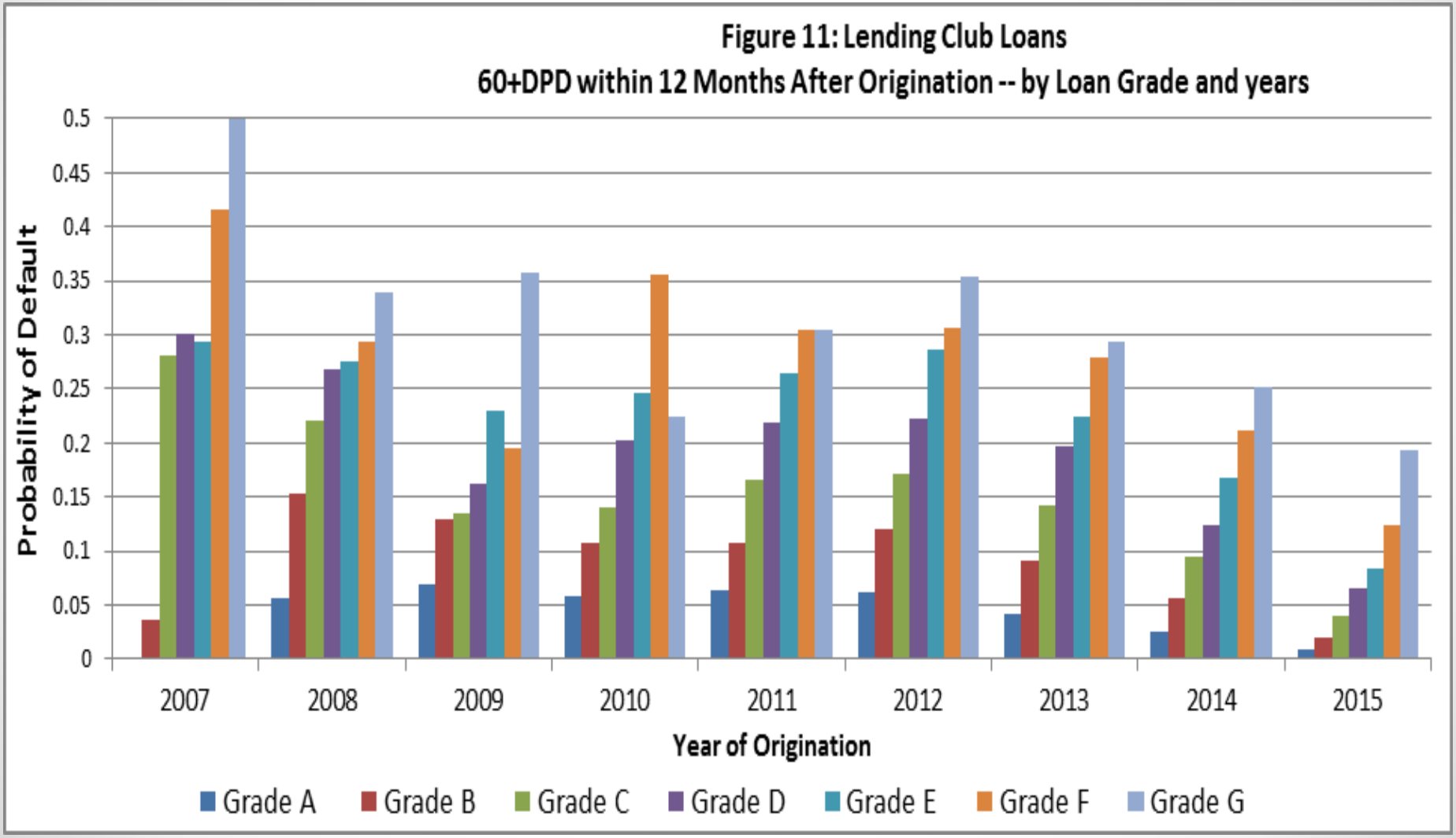
Rating Grades → Spreads → PD

Lending Club's interest rates are correlated to the probability of delinquency





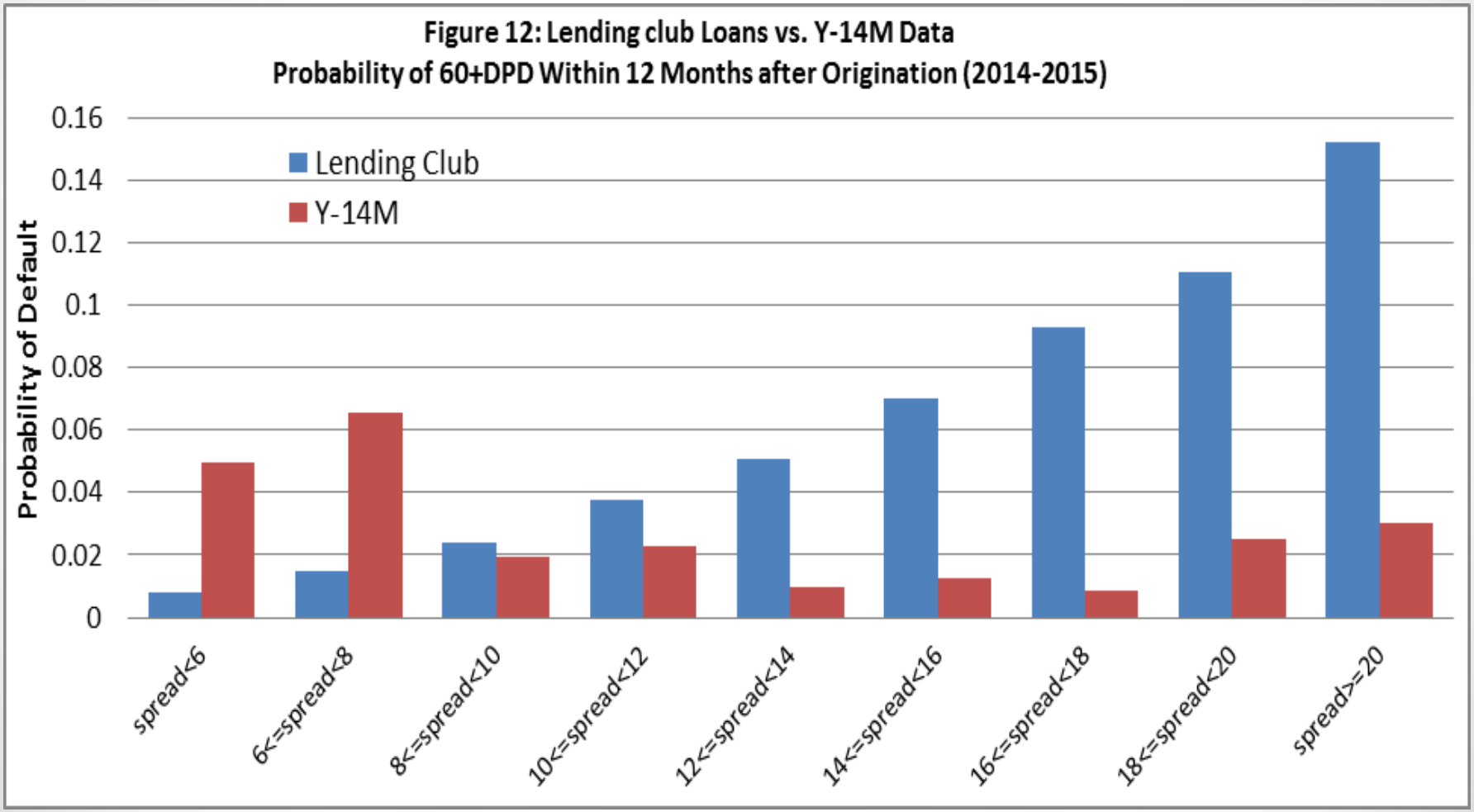
Improved Loan Quality – Smaller PD for All Loan Grades



Lending Club vs. CCAR Banks

For Loans Originated in 2014-2015

Smaller Spreads on Lending Club Loans



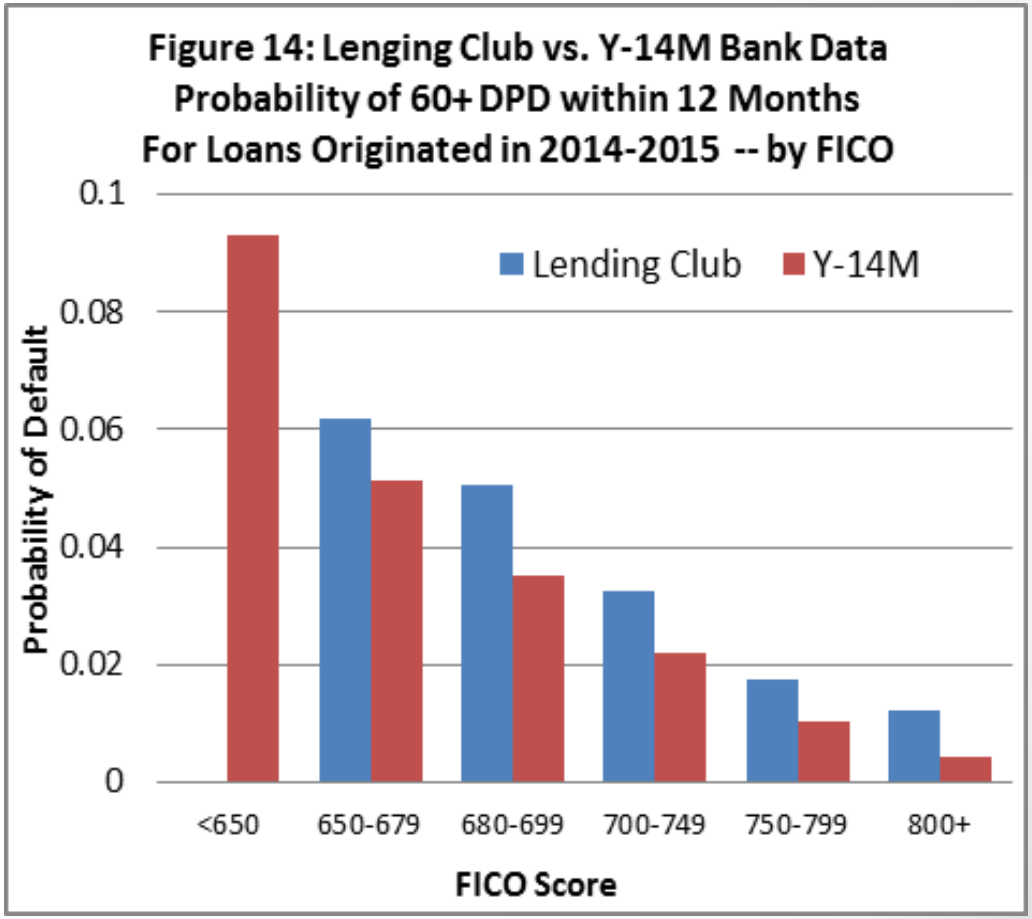
Regression Result 2

- **Table 2A**
  - Lending Club charges significantly higher spreads in regions with higher banking market concentration. Coefficients are significantly positive for areas with *1,500<HHI<2,500* and *HHI>2,500*
  - Lending Club loan grades are an important determinants of spreads for Lending Club loans
- **Table 2B**
  - banks also charge higher credit spreads in areas with greater degree of market concentration, with an *HHI>2,500*
  - FICO scores are an important determinants of spreads for credit card loans
- **More market power has allowed both banks and Fintech lenders to charge higher prices of credit.**
- **The goodness of fit measures were better for Lending Club equations (with loan grades) than for traditional bank credit card loans (with FICO scores).**

Controlling for FICO Scores, Lending Club Borrowers Are More Likely to Default

Borrowers in the same FICO bracket at Lending Club tend to be more risky, on average, than those who stick with credit card loans through traditional lending channels.

FICO Scores



Regression Result 3

- Data indicate that rating grades seem to do a good job of identifying riskier Lending Club borrowers.
- We explore this further using Logistic regression analysis to control for a number of additional factors (e.g., credit spreads, borrower's risk characteristics, and economic factors).
- Dependent variable is the probability that the loan becomes delinquent within 12 months following the origination date.
- **Results confirm that rating grades do a good job of predicting future loan defaults**

Takeaways (1)

- **Alternative Data Sources --** There is additional information in Lending Club's ratings that are not already incorporated in traditional risk factors (FICO) -- allowing some borrowers to be assigned better loan ratings and receive lower priced credit
- **Access to Credit --** Lending Club activities have penetrated areas that could benefit from additional credit supply – e.g. areas that lose bank branches and more concentrated banking markets
- **Loan Performance --** Lending Club borrowers are, on average, more risky than traditional borrowers given the same FICO scores.

Takeaways (2)

- **Risk Pricing:**
  - Rating grades have a decreasing correlation with FICO scores over the years
  - High correlation between interest rate spreads, Lending Club rating grades, and loan performance
  - Alternative data is being used and performing well
- **Funding Cost:** for the same risk of default, some consumers pay smaller spreads on loans from Lending Club than if the credit was priced solely on the basis of FICO scores
- **Partnership –** Increasingly, banks are finding ways to partner with Fintech lenders