Credit and the Real Economy

7th FDIC Consumer Research Symposium

October 13, 2017

Discussion of Argyle et.al. (2017) and Tobacman et.al. (2017)
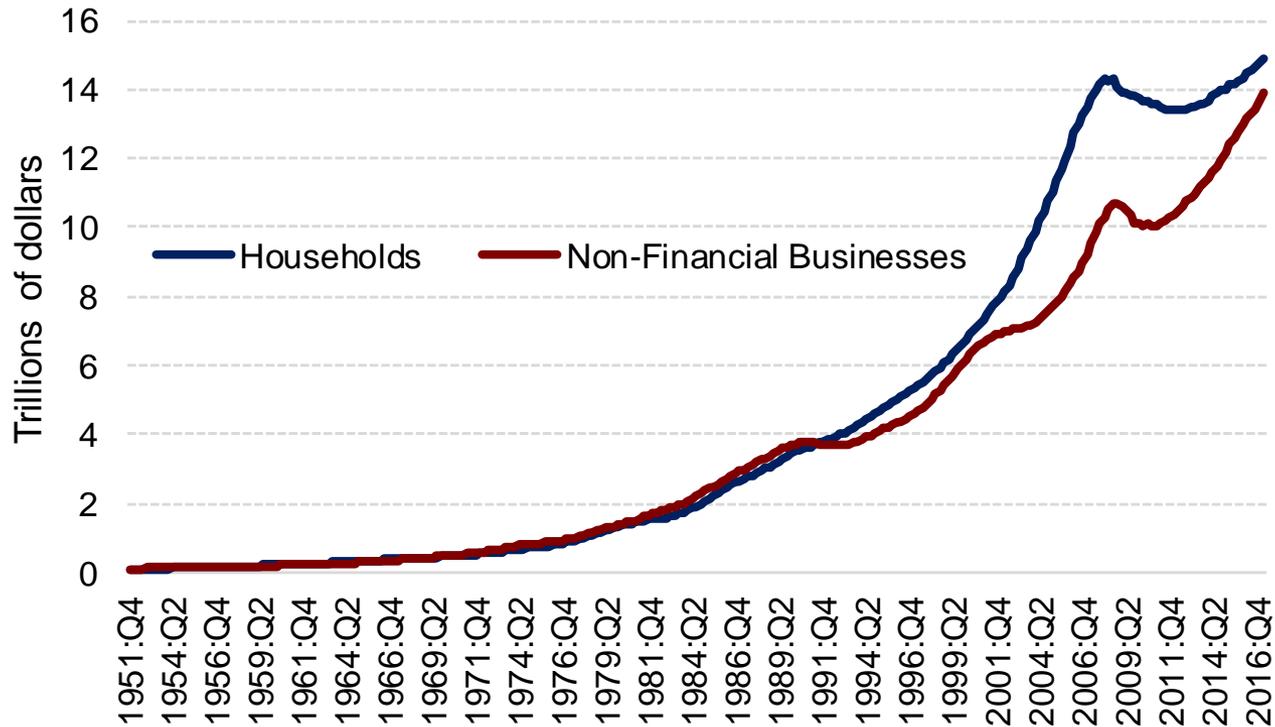
by

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The magnitude of household debt

Household debt $14.9 trillion vs Non-financial business debt $13.9 trillion (Financial Accounts of the US. FED. 2017 2Q).

Consumer credit and the real economy

➤ In principle:

      Consumer credit ⇄ Outcomes of the real economy

➤ The papers in this panel use credible methods to show that:

    ▪ Credit card outcomes ← unemployment.

    ▪ Loan prices → consumption of durable goods.

➤ Relevant questions, careful implementation.

➤ This discussion mostly on the interpretation and implications of the causal effects described above.
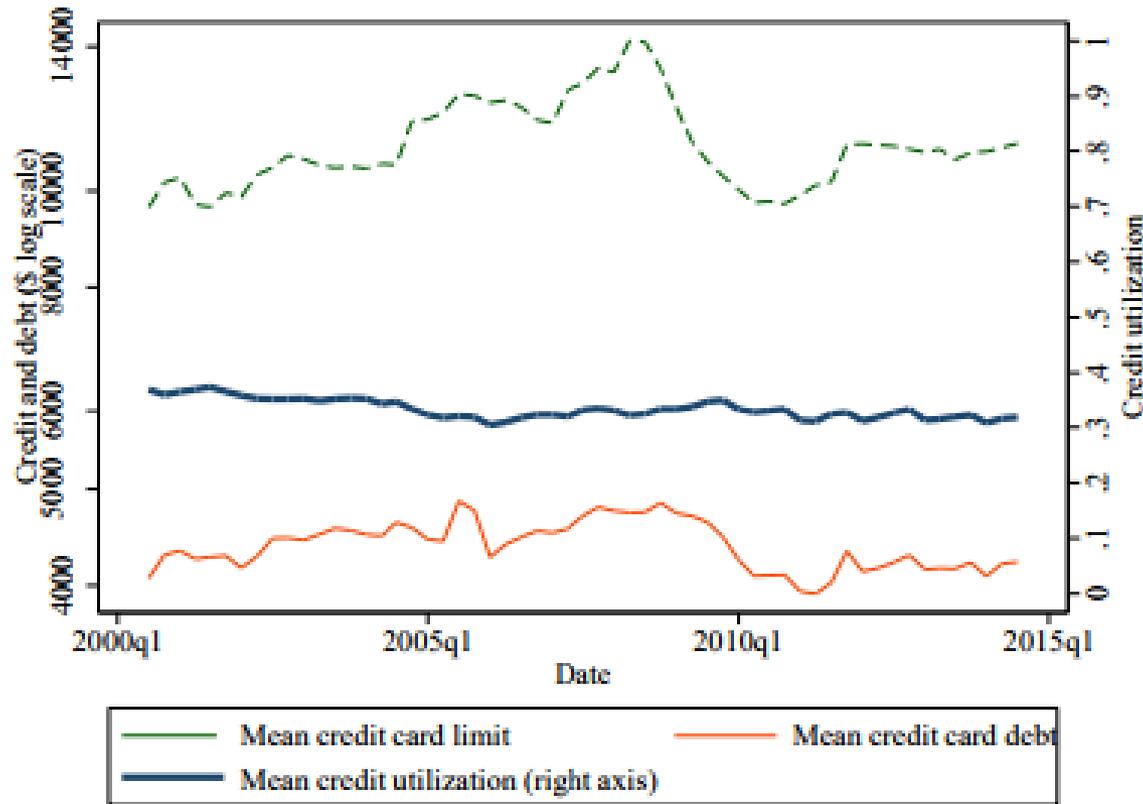
Rainy day credit

1. Micro story with very good identification: Bartik instrument to show that HOLDING EVERYTHING ELSE CONSTANT local employment shocks have:

➢ Negative effect on borrowing.

➢ Positive effect on purchases.

➢ Positive effect on payments.

➢ Negative effect on credit limits.

➢ 2. Macro story: Reconcile with aggregate trends. "Causes of the national [debt] cycle"?. "Credit Supply amplify consumption volatility driven by the business cycle"? "Countercyclical credit demand was massively dominated by procyclical credit supply". Not so clear evidence (in this paper).

Rainy day credit: the macro story.

Source: Fulford and Schuh 2015. CCP Equifax.

Rainy day credit: the macro story.

➢ During recession: unemployment **without** holding everything else constant.

➢ RECESION brings UNEMPLOYMENT + X

   X= lack of confidence in markets, lack of liquidity in banks, reduction in home equity.

➢ Authors argue evidence of "tightening credit when demand was especially high": latent demand (due to unemployment), and reduction in credit limits (due to X).

➢ But is there evidence (in this paper) of latent demand during the recession? Could X also mitigate demand for credit card debt?
   ▪ Specially given that utilization ratios did not increase in the aggregate.
   ▪ As an example: Reduction in home equality – less access to credit, better tighten up the belt and leave credit limit available (precautionary savings).

➢ This discussion will not focus on finding alternative macro stories, but instead suggest a focus towards micro story – comparative advantage.

Rainy day credit: the micro story - comparative advantage.

Increase in balances as private insurance:

➤ Lower payment, lower purchases. Flexibility of revolving credit. Smoothing consumption? Precautionary motive? Heterogeneity across utilization rates.

➤ Interaction with generosity of unemployment insurance across states. Or across industries that do not qualify for unemployment insurance: contract laborers.

Rainy day credit: the micro story - comparative advantage.

Positive relation between credit limit and unemployment.

➤ Identifying variation: increase or decrease in unemployment? – different interpretations.

➤ For now, assuming linearity: why are credit limits relatively larger for the unemployed? banks ability to identify long vs short term unemployment?

- Industries with transitory vs non-transitory changes.

Employment data at the county level. Credit data at account level.

➤ Who is driving the response in credit card outcomes?

- Cannot distinguish employed unemployed at individual level, but can look at credit rates, FICO scores, balances, credit limits, all at baseline.

Search Frictions

➤ Individuals with same FICO, same time and same space, receive different contract terms with different auto loan providers. Exp.: search costs.

- Less car and less credit.

➤ Correlate Proximity to Financial Institution (PFI) with predictions of search cost models.

- Gains for search. Less likely to take up high interest offers, with low interest offers are available.
- Multiple loan applications.
- Price dispersion.

➤ Areas with higher PFI, show less pass through of interest rates decreases (Bartik style instrument).

Mapping between search costs and PFI (one to one?)

Very convincing argument that PFI is related to search costs:

➢ Direct measures and theory predictions.

But could PFI also be related to other variables?

➢ Shift-share approach to get a causal effect of branch density. Can we use it to talk about the effects of search costs?

➢ Standard IO literature number of competitors affect probability of tacit collusion, which in turn may affect pass through of cost reductions.

Very convincing that search costs play a role in price structure in auto-loan industry.

Not so convincing that the causal effect of PFI on IR pass- through can be fully attributed to search costs.
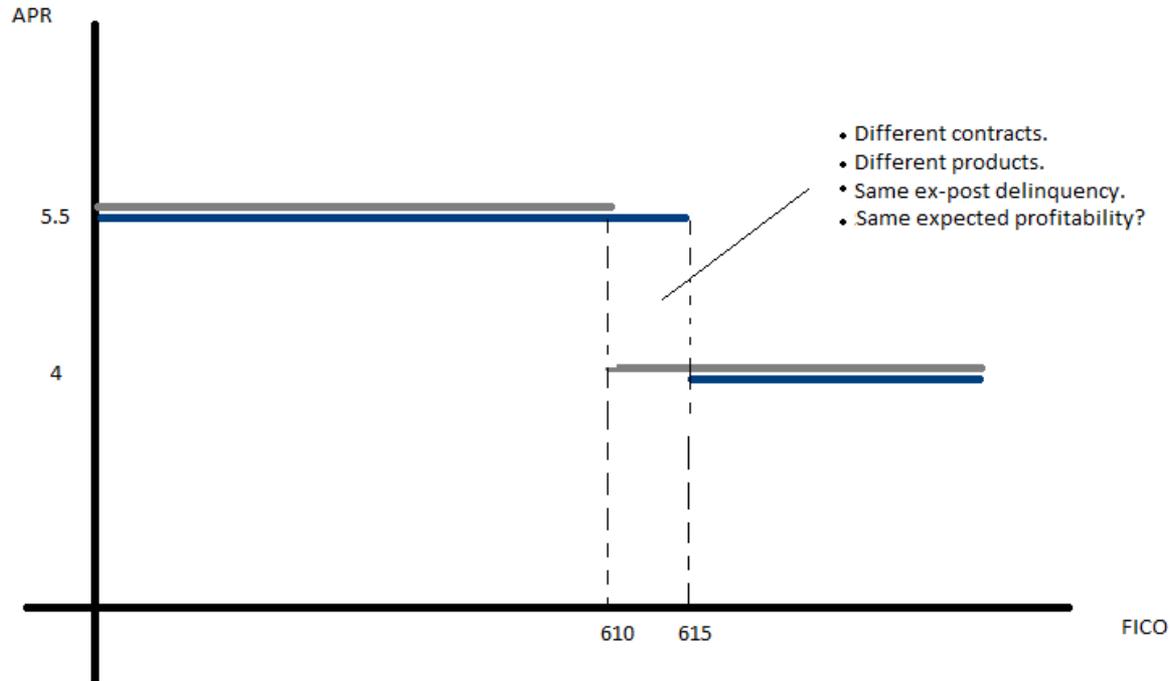
Cut-off rules in FICO score, and optimality of firm choice

➢ Agarwal et.al. 2016, Keys 2010, and others.

➢ Firms optimally choose number of cut-offs, cut-off values, and other variables. Fixed costs of developing score card.

➢ This paper – cut-off rules are not the same across providers.

Cut-off rules in FICO score, and optimality of firm choice

APR

- Different contracts.
- Different products.
- Same ex-post delinquency.
- Same expected profitability?

5.5

4

610   615

FICO

Consider user with 612, going to gray firm.

Pricing in the presence of search costs

Standard equilibrium with search costs:

S- Fraction of shoppers in FICO bin facing high interest rate. Go to cheaper provider.

(1-S) - Do not shop. Split equally across firms.

S*Margin(4)+(1-S)/2*Margin(4)= (1-S)/2*Margin(5.5)

Have a lower bound for S, and can recover Margin(.) from the data!

Overall

➢ Great papers, with rich datasets and clever identification techniques.

  ▪ Comments on interpretation and possible extensions.

➢ Better understanding of the relation between consumer credit, frictions in credit markets, and the real economy.