

Do Banks Pass through Credit Expansions? The Marginal Profitability of Consumer Lending During the Great Recession

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Motivation: Bank Lending Channel

Policy can stimulate real activity by increasing the supply of bank credit.

Question 1: Does an increase in the supply of loans lead to more borrowing?

Question 2: Do policies that affect cost of capital lead to an increase in the supply of loans?

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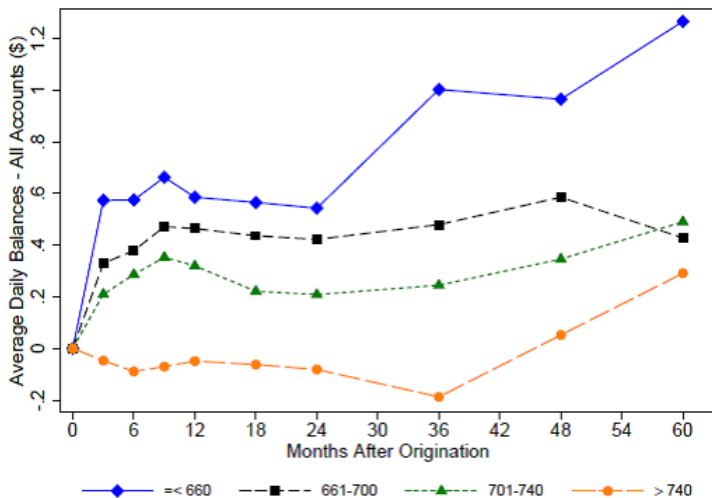
Question 2: Do policies that affect cost of capital lead to an increase in the supply of loans?

Innovation 1: Heterogeneous Household Response

The household response to changing credit conditions is larger for more constrained borrowers.

- The borrowing response to an increase in credit card limits is largest for low FICO score borrowers.
- Consumption responds more to changes in mortgage rates for borrowers with high mortgage debt (DiMaggio, Kermani, Ramcharan, 2014).
- Home equity borrowing is strongest for households in the bottom of the income distribution (Mian and Sufi, 2014).

Heterogeneity in MPB



Innovation 2: There are Other Costs to Lending

Banks face other lending costs in addition to the costs of funds.

- These costs mute the increase in credit supply from policy changes that lower the cost of funds.

These costs are biggest for low FICO score borrowers.

- Policy least effective where it might help the most.

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Estimating Pass-through

MPL is estimated using a model of what should affect MPL.

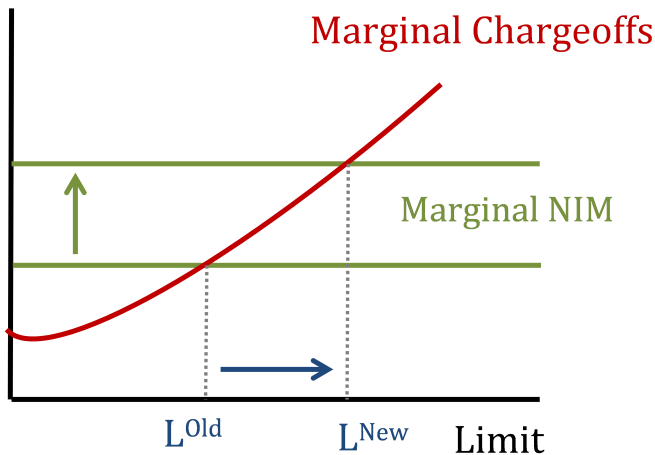
- Monopolistic bank chooses a credit limit to maximize profits facing elastic demand and increasing marginal chargeoffs.
- More direct approaches are fraught with problems.

A decrease in the cost of funds encourages the bank to increase limits in order to increase net interest margins (NIM).

- The optimal increase is larger if marginal chargeoffs do not increase quickly.

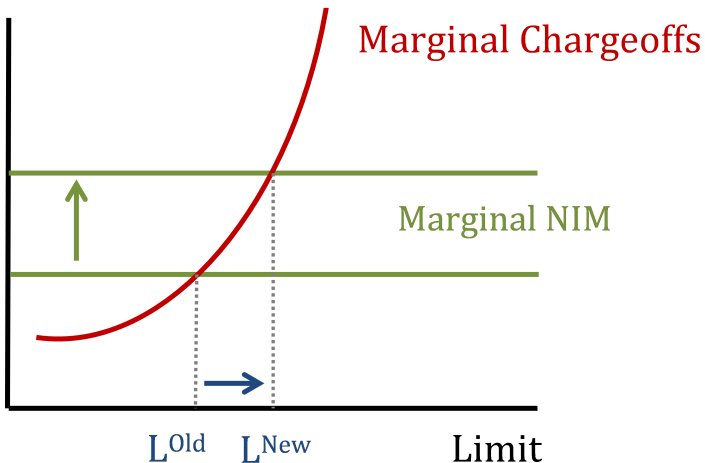
Changes in Marginal Chargeoffs Determine MPL

High FICO



Changes in Marginal Chargeoffs Determine MPL

Low FICO



Key Result

The marginal profitability of increasing limits decreases very quickly for low FICO score borrowers.

- Marginal chargeoffs increase quickly.
- Marginal fee revenue declines very quickly.

Seems like an information/incentive problem.

- For a large auto lender, it is the combination of a low FICO score and a large loan that triggers human screening.

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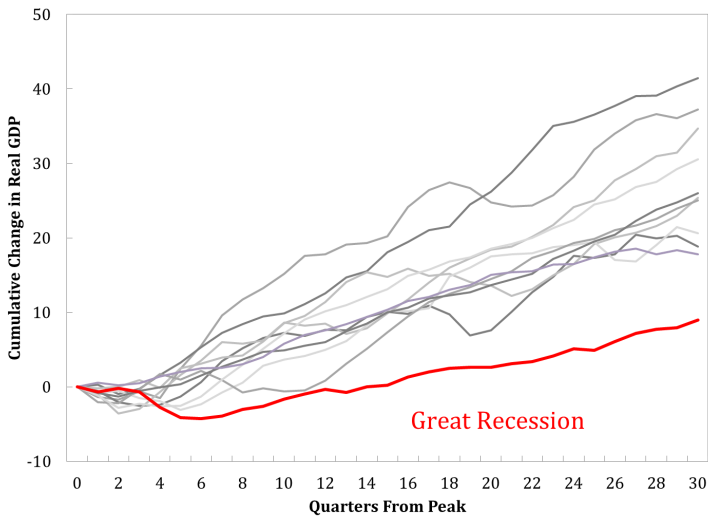
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Can this Explain the Great Recession?



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The result sheds doubt on the potency of the bank lending channel of monetary policy.

Is there evidence to suggest that this effect is particularly strong during this recession?

- Did the FICO distribution worsen substantially?
- Might MPBs or MPLs be different now?

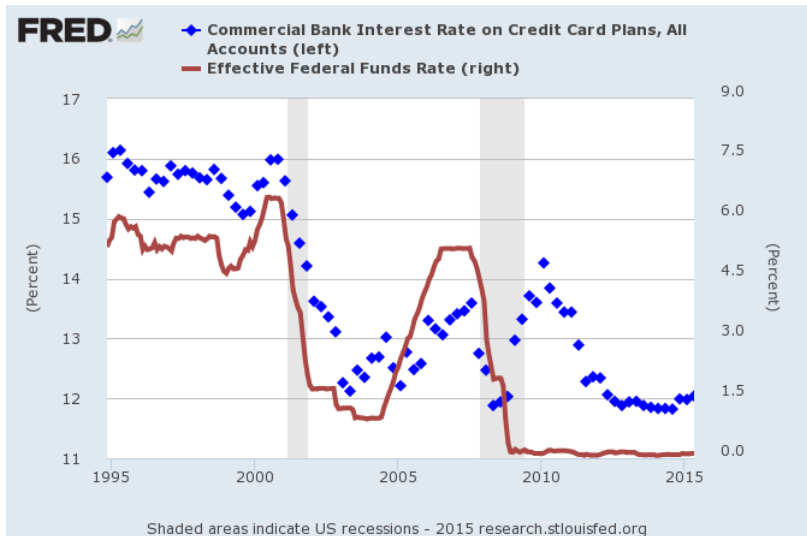
Does this Make Policy Totally Impotent?

Monetary and banking policy may still operate through other mechanisms.

Even through the bank lending channel.

- Higher credit limits may encourage more applications.
- I'm not convinced that there is no interest rate effect.

Does this Make Policy Totally Impotent?



Alternative Policy Options?

The results suggest targeted policies may be useful.

More research is needed to identify best targets.

- E.g. Counter-cyclical risk-based capital requirements?
- E.g. Lenders with different lending technologies?
- E.g. Borrowers with high MPB or low MPL?

Conclusion

Banks lend to those who don't spend!

Extra for Authors

- As you can see from my discussion, I like best the results on MPL. You need MPB to estimate MPL, and MPB is interesting in its own right (although somewhat less novel), but I find the real innovation to be the estimates of how marginal costs, revenue, and profits change with limits and how this can be use to estimate pass through. I think these results get somewhat shortchanged in the current version of the paper.
- I recommend adding more discussion of figure A2. I suppose its included to suggest that there is little correlation between changes in fed funds and credit card rates, but I don't see the correlation reported anywhere. Over recent periods, they look correlated to my eye, perhaps with some lag.

Extra for Authors

- I find the change in marginal fee revenue interesting and less intuitive than the change in marginal chargeoffs. I can see how adverse selection could create the strongly increasing marginal chargeoffs, but I don't have a good sense about why marginal fee revenue would be so steeply decreasing.
- I find the discussion of model fit quite useful. It seems like an alternative estimation strategy is to estimate the model parameters that best match the observed limits. Given the nearly zero marginal profits at the existing limits, I suspect this would lead to similar results, although one colleague of mine suggests that small changes in estimates can sometimes lead to large changes in measures of model fit. Perhaps there is a way to quantify whether the model fits well?

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- It seems like weighting the find the change in marginal fee revenue interesting and less intuitive than the change in marginal chargeoffs. I can see how adverse selection could create the strongly increasing marginal chargeoffs, but I don't have a good sense about why marginal fee revenue would be so steeply decreasing.
- I recommend explaining a bit more exactly how you define a discontinuity? I suspect you have a formal rule for identifying a “jump” but I couldn't find it.
- Treating the treatment effects as data seems to understate standard errors since you dont capture the sampling variation in the estimate of the treatment effect.

Extra for Authors

- I became curious about other sources of heterogeneity in the MPB, MPL. I was curious how it might change over calendar time, since there were some macro changes over the sample despite little change in monetary policy. I was also curious about heterogeneity across banks, wondering whether some banks have a lower MPL due to a different lending technology.
- I recommend adding a source to some of the points made in the first full paragraph on page 4 (on the first contribution). Perhaps all is related to the SCF, but it's not clear.
- Page 22, first full paragraph: "Alternative" needs an "ly."