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## **A Quantitative Model of High-Cost Consumer Credit**

(Job Market Paper)

High-cost consumer credit products (e.g., payday loans, pawn loans, or title loans) are used by low-wealth and low-income households that lack access to the traditional financial system. These credit markets in the US are subject to regulations that range from outright bans and limits on borrowing to interest rate caps and rollover limits. This paper studies the welfare consequences of such regulations.

Borrowers may be willing to borrow at high interest rates during bad times (e.g., health shocks, unemployment), but they may also be tempted to consume in the present more than what is desirable for them in the long run. In the first case, the optimal policy would want to preserve access to credit; in the second case, the optimal policy would restrict borrowing by households with self-control problems. I study this trade-off with endogenous interest rates that reflect default risk at the individual level.

I develop a dynamic general equilibrium model that features three key ingredients: (i) uninsurable idiosyncratic risk in income and expenditures; (ii) heterogeneity in preferences, with patient and impatient exponential discounters and a third group facing temptation and self-control problems; (iii) and risk-based pricing by lenders. All households will borrow in response to adverse income or expenditure shocks, while households with self-control problems overborrow in all circumstances. The pricing of lenders can either exacerbate overborrowing or limit it, which in turn affects the efficacy and optimality of regulations.

I estimate the model using the generalized method of moments. I use two data sources: 100-million payday lending transactions and a no-borrowing incentive experiment. Households with temptation preferences value not being able to borrow in the future, so they have high valuations for the incentive program; exponential discounters have lower valuations since they weakly suffer from not being able to borrow. I use the valuations of the no-borrowing incentive to identify the fraction of households that have temptation and self-control issues.

I find that one-third of high-cost borrowers suffer from temptation and self-control issues, while the remaining two-thirds are exponential discounters. Regulatory borrowing limits and interest rate caps reduce the welfare of all households in the estimated model. This is due to tight price schedules from the lenders already limiting overborrowing by temptation households. Standard exponential households never gain from such policies. Thus, the case for regulation of high-cost credit due to self-control problems is not supported by the model.

JEL: G51, E21

Keywords: Consumer Credit, Default, Temptation, Payday Loans