Soft Liquidity Constraints and Consumption: Evidence from Macro Prudential Policy in Turkey

By Agarwal, Hadzic, Song, Yildirim

Discussion by Tullio Jappelli

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Aim of the paper

- Regulation increases **minimum payment** (from 20 to 25-40 in 3 years), depending on individual credit card limit.

- Individuals must pay **50% of monthly balance** at least 3 times a year.

- Announced in December 2010, implemented gradually in June 2011 and completed in 2014.

- Authors estimate **impact on debt balance and credit card spending** of restrictions in credit card payments.

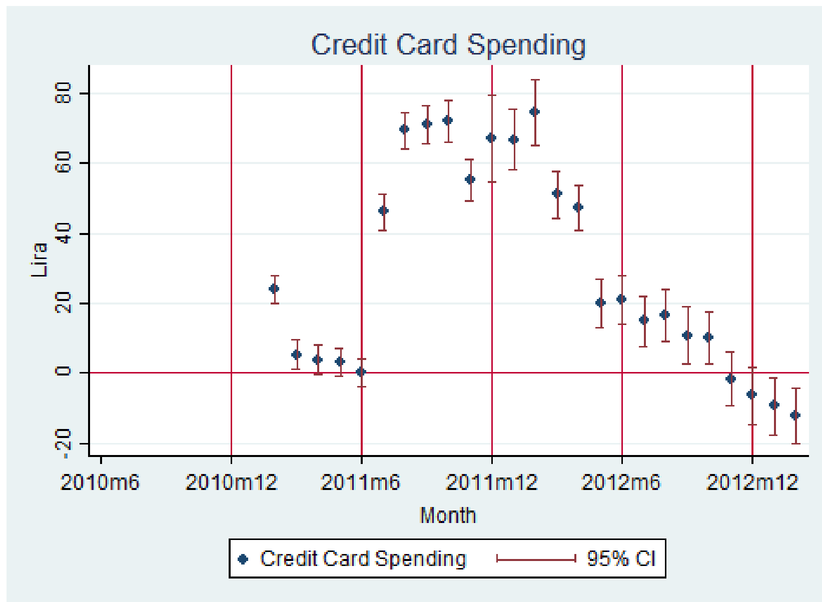
- And the **announcement effect**.

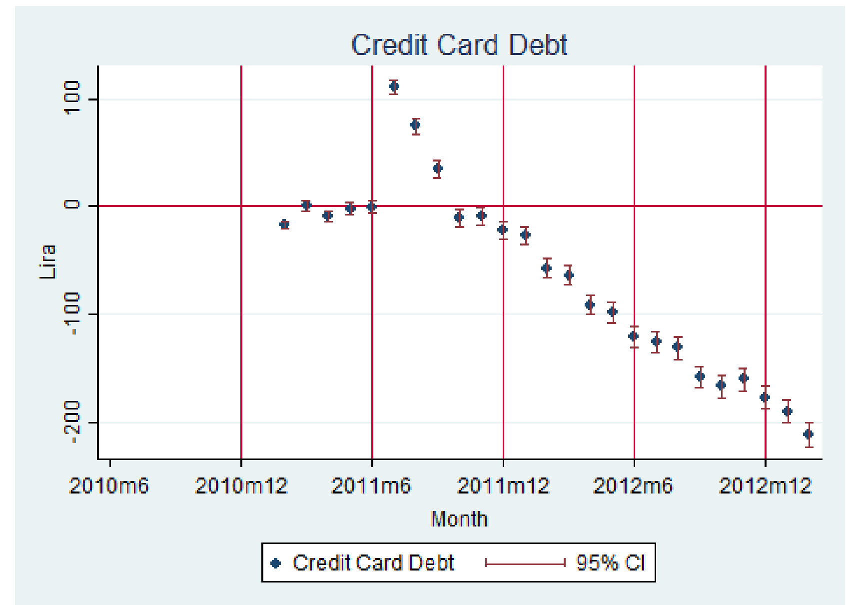
Findings: regressions analysis

- Sample of credit card holders in major Turkish bank runs from January 2010 to March 2013.

- Spending and debt increase in the first 6 months
- Increase in spending is concentrated on durables
- Afterwards spending and debt fall
- Effect is “across the board”, but largest for those with high credit card limits

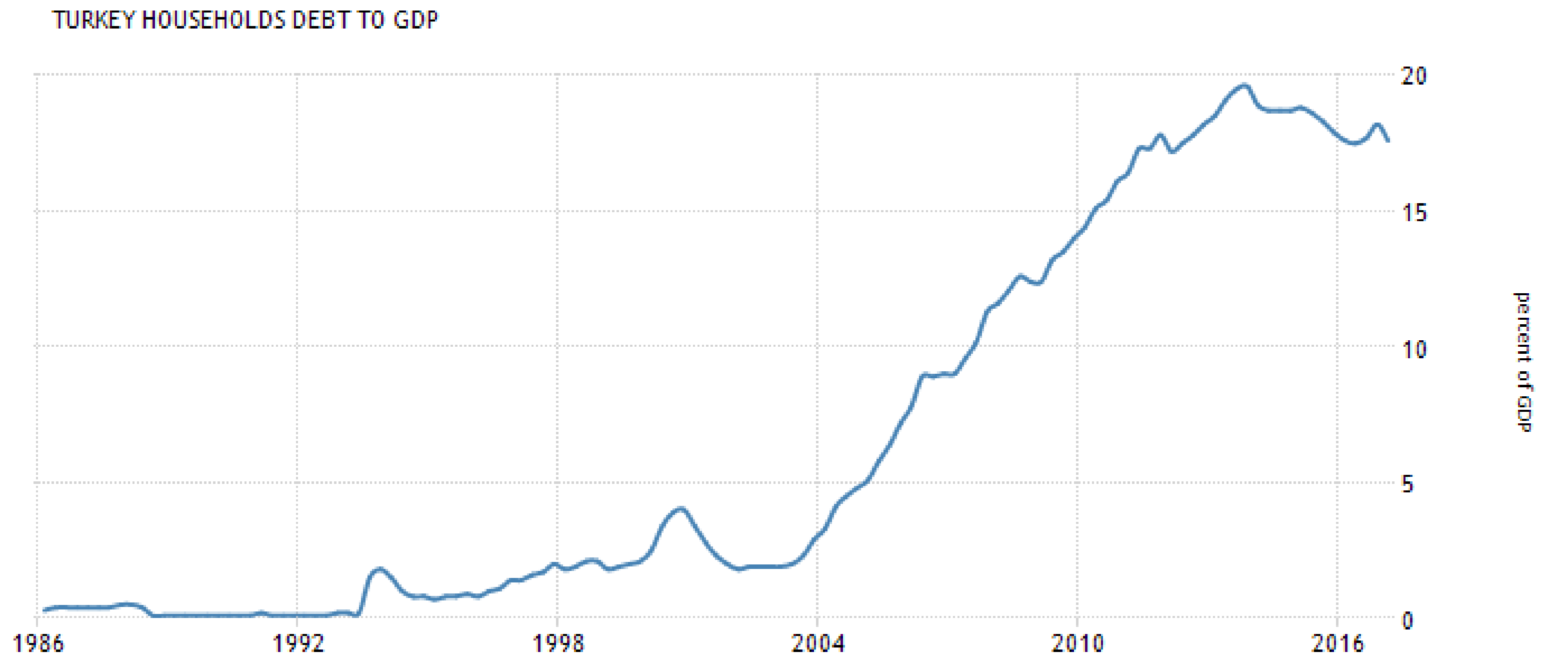
Findings: event study analysis





Credit card debt balance falls in the long run (about $50) . Consumption increases temporarily after the policy change. Not much change after three years.

Household credit: impressive growth



Credit cards

- Yearly interest rate 30% (inflation about 8% from 2000)
- Monthly balance: about $150
- Credit limit: about $1000
- Monthly spending: about $80
- 20% minimum monthly payment: $30
- High penalties for late payments

- 80% pay full balance every month and are not charged any interest: "**transactors**"

- 10% pay the minimum, and 10% between minimum and full, incurring in high interest fees and sometimes penalties (if pay below minimum): "**revolvers**"

- The reform impacts between 10% and 20% of borrowers.

“The most common mistakes using a credit card”

- The 7 most common mistakes : N2 Paying the minimum
- The 10 worst credit card mistakes: N1 Making only minimum payments
- The 11 most common credit score mistakes: N3. Making minimum payments
- The 4 biggest mistakes: N2. Making minimum payments
- The 8 common credit mistakes: N2. Making minimum payments
- Another common mistake (N.3 o N.4) is “withdraw cash with a credit card”
- The best customer is one who pays every month, but carries a balance.

Anchoring and financial sophistication

- Making only minimum or near minimum payments increases the chance to incur in late and over-the-limit fees. It also implies high interest payments.
- Credit card mismanagement is usually associated with lack of self-control, poor financial sophistication, aggressive marketing by credit card companies.
- **Cost misperception?** Some people pay the minimum **even if they could afford to pay more.**
- **Anchoring**: The minimum is usually prominently displayed on a monthly statement and some customers might pay that amount out of habit or ignorance.
- **Would be useful to show the monthly statement of the bank.**
- For instance, CARD Act (2009) mandated that monthly statements include amount that would amortize the existing balance over the next three years.

The effect of the reform

- Reform makes it more difficult for consumers to pile up credit card debt.

- Implemented to stop growth of household debt, or to cope with common mistakes? Are there other, more effective ways to stop growth of household credit?

- “Please, be sensitive in taking credit cards. They are the biggest source of the interest rate lobby. Live within your income and do not be used by this lobby. Members of the lobby may take what you have.” Erdogan (2013)

Does raising minimum payments always make households more liquidity constrained?

- Impact on debt balance of “revolvers”: obvious. Impact on consumption of “revolvers”: not obvious.

1. Need to show that “revolvers” are truly liquidity constrained, and not acting by habits or mistakes.

2. The reform does not reduce overall amount that people can borrow, or the interest:

   2.1. It reduces debt maturity, increasing monthly payment. Transitory effect? Borrowing from other sources?

   2.2. It reduces the interest burden. Positive income effect, that might increase spending after a transition. It is also permanent. At 30% interest rate, and monthly balance of $150, the reduction in interest payments could be a gain of $60 per year for low income people.

3. Additional implication (not tested): Some people may borrow more than the IBC. Do delinquency rates increase after the reform?

Treatment and control groups

- Validity of the empirical strategy rests on the assumption that the dynamics of spending and debt for “transactors” provides a valid counterfactual for the dynamics of spending and debt for “revolvers”, in the absence of a change in payment limits.

- This assumption requires that the sample of “revolvers” does not differ from the sample of “transactors” in terms of unobservable characteristics that would affect outcomes differently.

But here the treatment group depends on 3 choice variables:

- minimum payment
- credit limit (stronger impact for those with high credit limit)
- payment of 50% at least 3 times a year

- Furthermore, groups interact. For instance, cash-in-advance treatment is 1 if someone pays <50% of monthly balance 3 or more times in the year before policy is implemented.

Treatment and control groups

- The “treated” group is presumably a sample of people with low-income, unstable income, poor financial literacy, trapped into credit cards with high interest rate charges.

- Can you distinguish between anchoring and truly liquidity constrained consumers?

- if it is **anchoring,** they will bunch at the new minimum every time it is raised, but will not reduce consumption;
- if it is truly **liquidity constrained**, they will be either delinquent, or bunch to the new minimum reducing consumption, at last in the short-run.

- Descriptive statistics on the fraction of people that bunch at the minimum every month would be useful.

Don’t rush to regressions….

- Report more descriptive statistics on the sample of “treated” and non treated consumers.
- Present the distribution of the sample according to credit limits.
- Present the distribution of the sample according to payment ratios.

Suggestion

- January 2010: data starts.
- December 2010: policy announced.
- June 2011: Minimum Payment phased in gradually.
- September 2011: Cash-on-Hand phased in, based on previous 12 months.
- March 2013: data ends – MP phased in (from 20 to 28%).
- January 2014: MP completed (to 40% for highest credit limits).

- Compute cash balances, spending **and interest payments** in the first 6 months of the data. Define treatment groups in this sample. Consider 2 groups:

- Those that will face Cash-on-Hand constraint
- Those that, in addition to Cash-on-Hand, will face Minimum Payment constraint
- Omit the transitional years, and run the simple regression:

$$\Delta y = b_0 + b_1 \times \text{Revolvers} + b_2 \times \text{Post} + b_3 \times \text{Revolvers} \times \text{Post} + \varepsilon$$

- Where LHS is change in debt; change in cash balance; change in interest payments.

Three approaches to cope with lack of financial sophistication and mistakes

- Financial education – but does it work? Probably not
- Financial license, like for cars, for the most dangerous products (such as credit cards with 30% interest, high penalty rates, and low minimum payments).
- Regulate financial products (Turkey approach).

In terms of policy implications, where does this paper stand?