LIQUIDITY AND CREDIT CONSTRAINTS, DEBTS, AND THE SAVING BEHAVIOR OF THE MIDDLE CLASS

MAUDE TOUSSAINT-COMEAU
FEDERAL RESERVE BANK OF CHICAGO

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Renewing the Promise of the Middle Class

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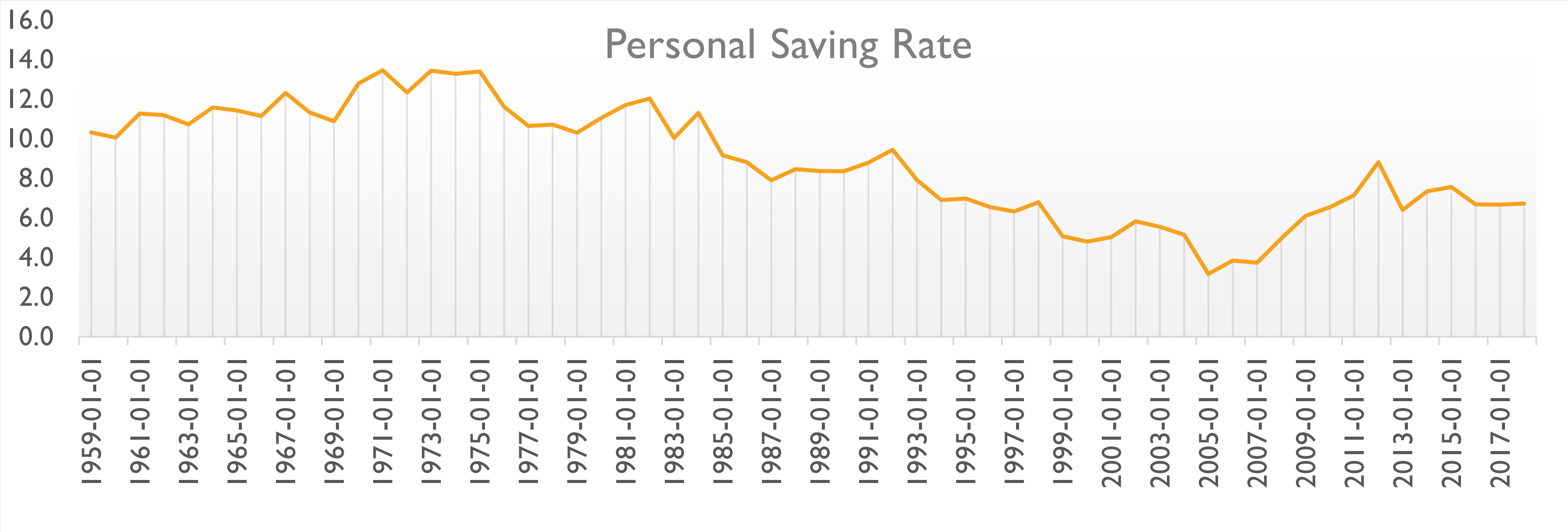
Motivation of the Study

- Having adequate savings is essential for families to respond to risks against adverse financial shocks and reduce the costs of future uncertainty on their wellbeing.
- For much of the last three decades, U.S. households have been reducing their savings.



Source: FRED

DATA

- The Survey of Consumer Finances (SCF) allows analyzing issues related to the financial security of households, across the full socioeconomic spectrum.

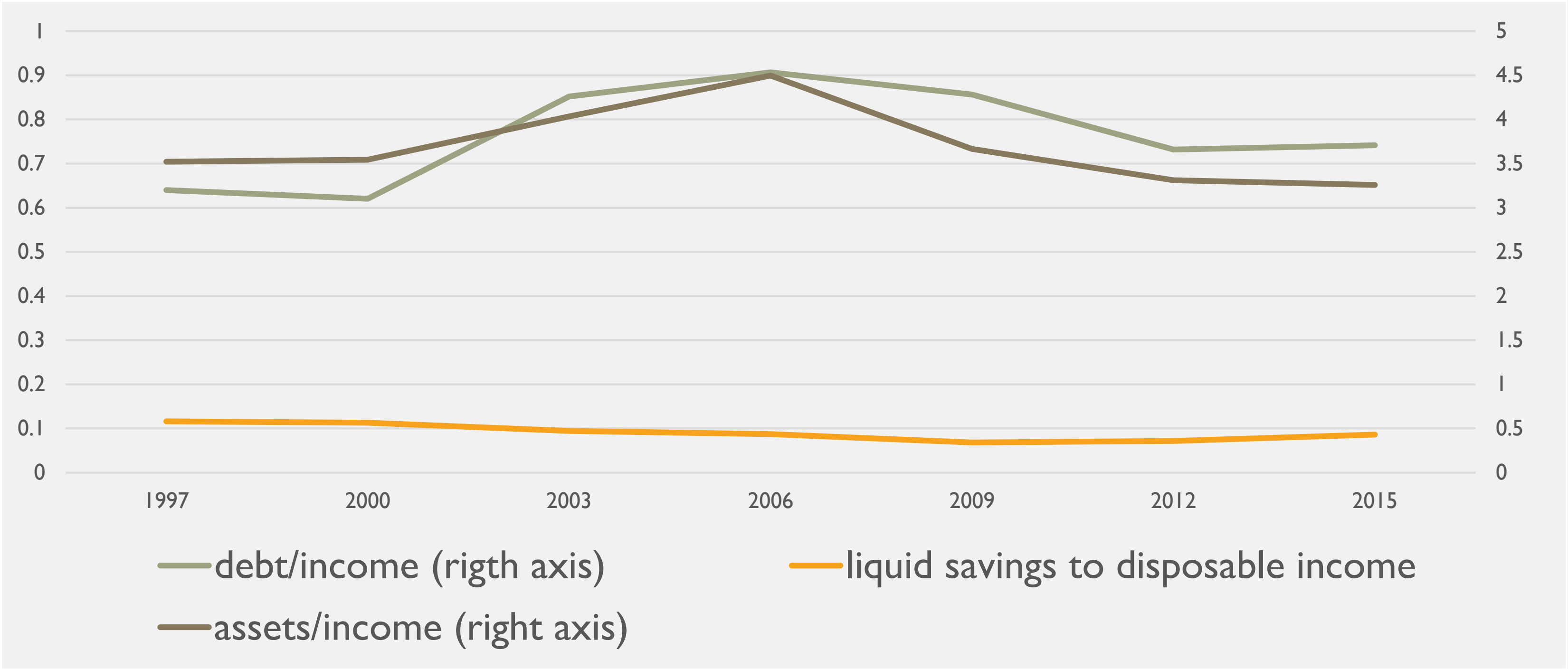
- Multi-year cross-sectional waves of the SCF 1995, 1998, 2001, 2004, 2010, 2013, and 2016 allow assessing trends in the size of the middle class and capturing important shifting dynamics in income, wealth, debt, and saving, both before and after the Great Recession.

- The SCF data allows identifying the degree of liquidity tightness based on information on whether households want credit but are not able to get it or are discouraged from applying for credit.

- The SCF data allows measuring how costly additional liquidity is, based on information on interest rates, account balances, and debt payment.

DATA ANALYSIS

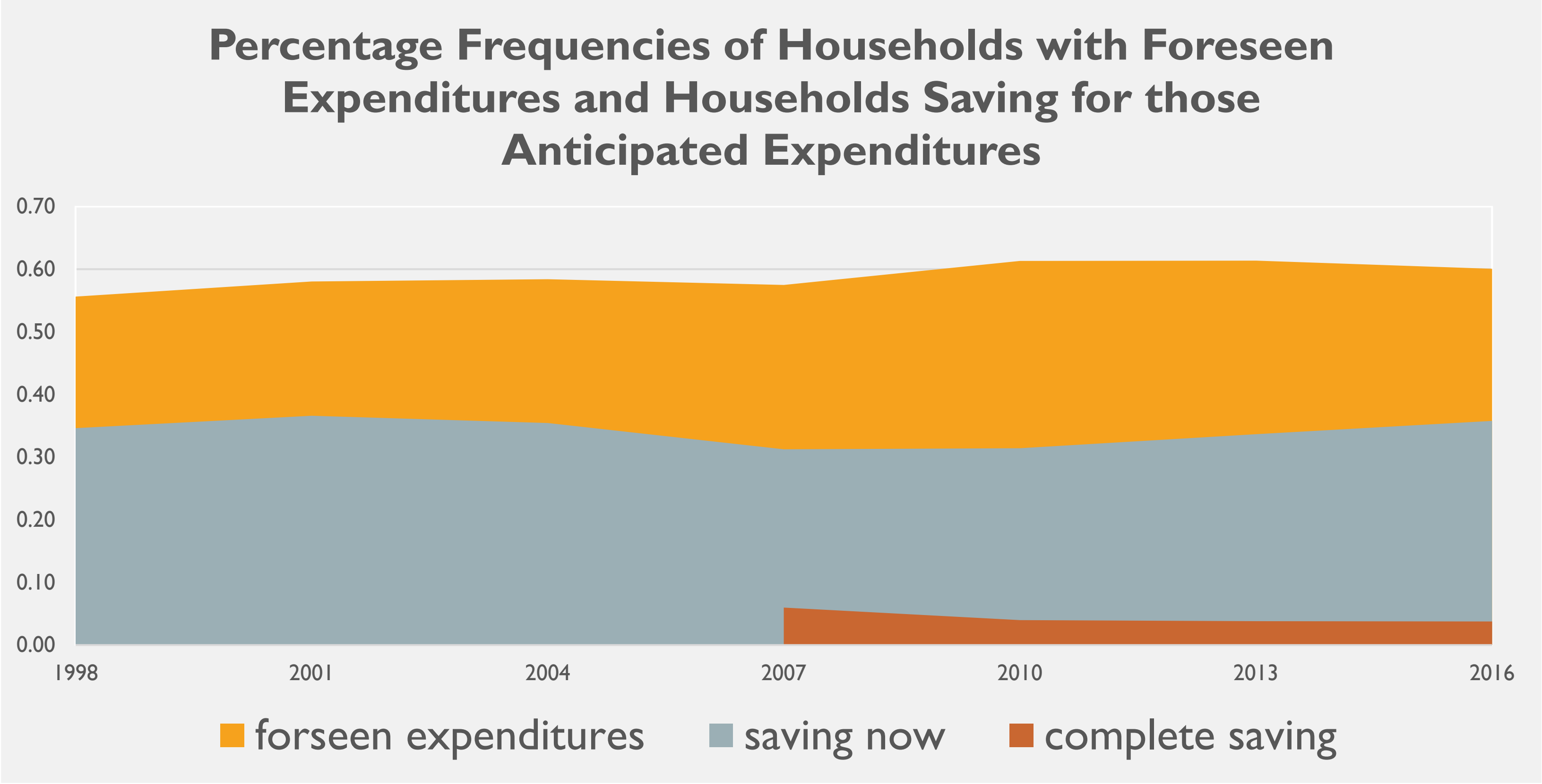
- U.S. households' debt increased aggressively before the financial crisis, although, the value of assets also rose.
- Households generally have low levels of liquid savings relative to their disposable income (indicative of liquidity constraints).



Source: Author's calculations based on SCF and TAXISM

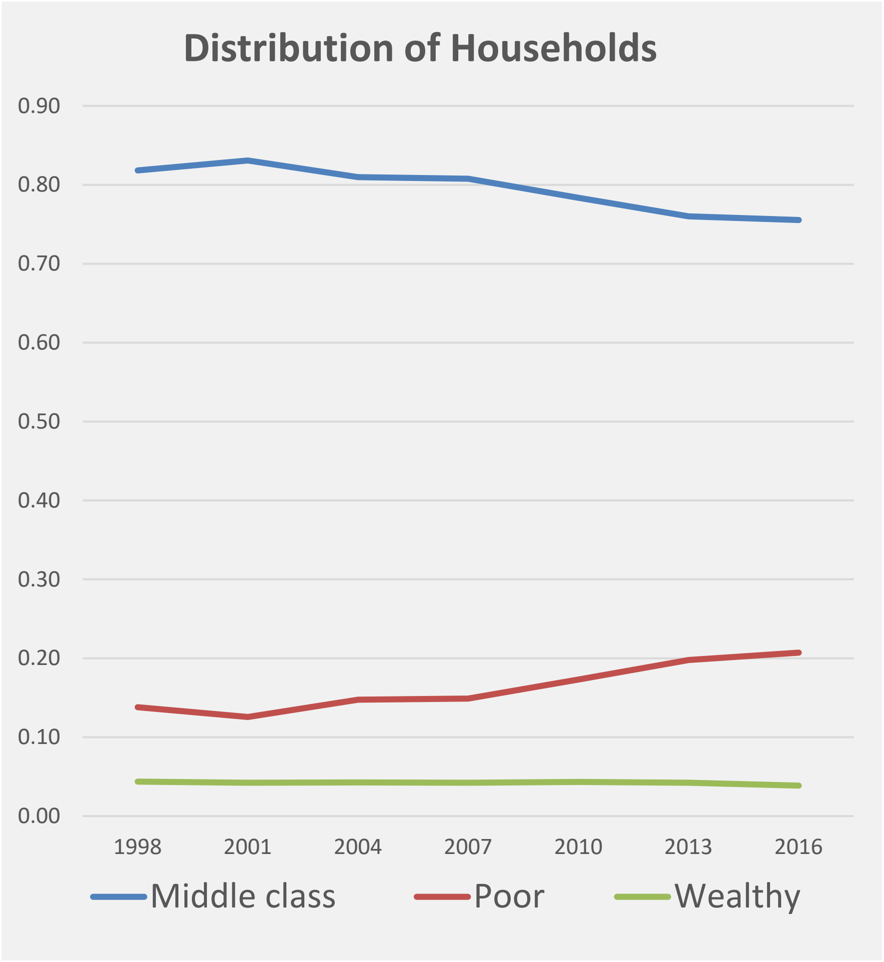
DATA ANALYSIS

- Savings appear to be less than optimal. There is a gap between people wanting to save and whether they are saving.



Source: SCF

Data Analysis



Source: Author's calculations based on SCF and TAXISM

THEORETICAL BACKGROUND

- The life-cycle model of consumption provides a contextual framework to examine the relationship between liquidity constraints and saving motives through the credit channel.
- Consumption theory suggests that consumers who face liquidity/credit constraints (have no access to credit) should have a higher level of precautionary saving. Empirical evidence, however, has produced mixed results.
- New researches are theorizing that consumers who face debt at increasing costs (soft credit constraints) would have lower levels of precautionary savings.
- High debt-payment to disposable income ratio is an indicator of liquidity/credit constraints (Johnson and Li, 2010).

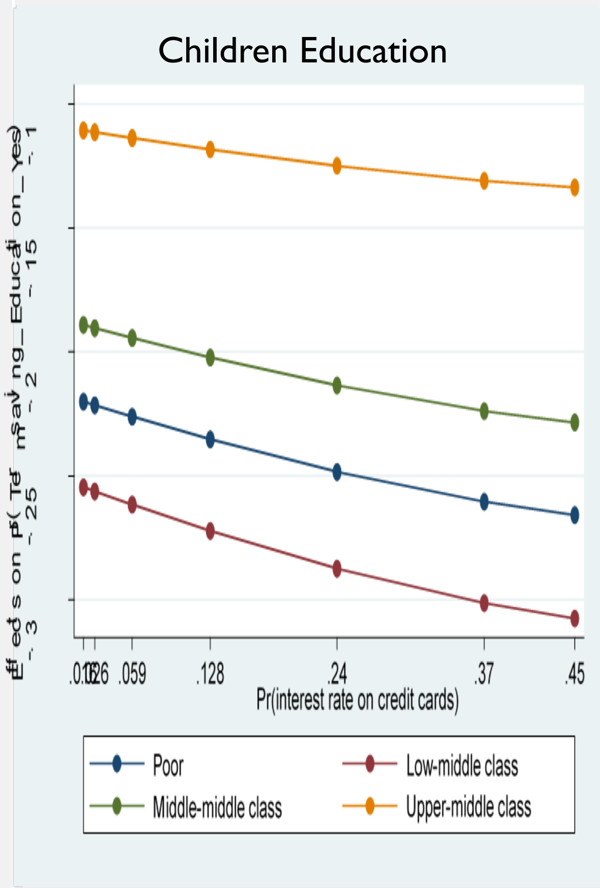
Empirical Regression Results: Determinants of liquidity tightness or Constraint Incidences (Marginal Effects Estimates of a Probit model)

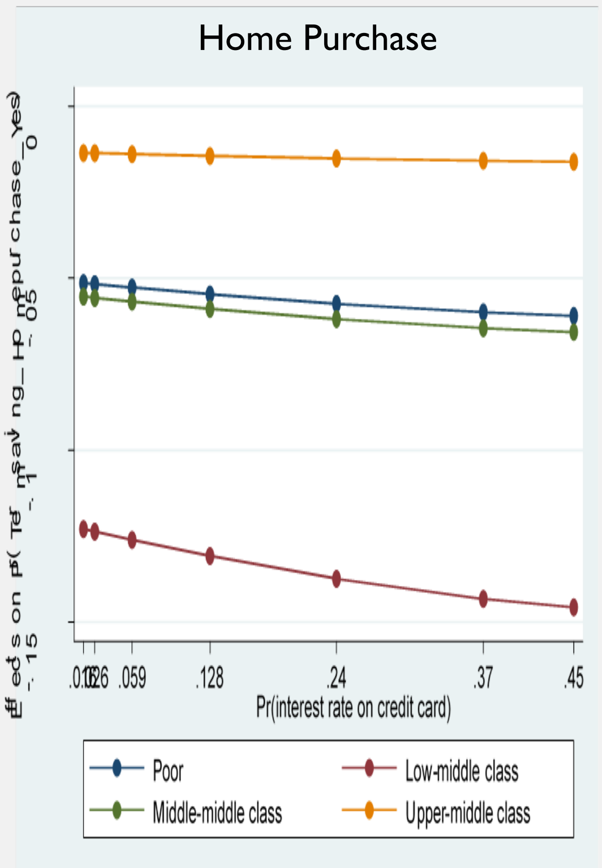
Variable	High Interest Credit Cards	High Monthly Debt Payment to Income	Denied Credit and Discouraged
Socioeconomic status			
Poor	0.07***	0.24***	0.41***
Low-middle class	0.04***	0.31***	0.36***
Middle-middle class	-0.02	0.35***	0.28***
Upper-middle class	-0.06***	0.28***	0.17***
Race/ethnicity			
Black	0.04***	0.02**	0.12***
Hispanic	0.06***	-0.02	0.02**
Asian	0.04***	0.02	0.02
Demographic/other controls			
Age	-0.01	0.05***	0
College education	-0.03***	0.02***	-0.03***
Family size	0.01**	0.02***	0.04***
Homeowner	-0.06***	0.53***	-0.12***
Single	0.01	0.02***	0.05***
Employed	0.00	0.07***	-0.02***
Self-employed	0.02	0.06***	0
Year-fixed effects			
R-Square	0.19	0.21	0.12
Percent Predicted	0.62	0.56	0.21
Observations	100,624	136,147	136,147

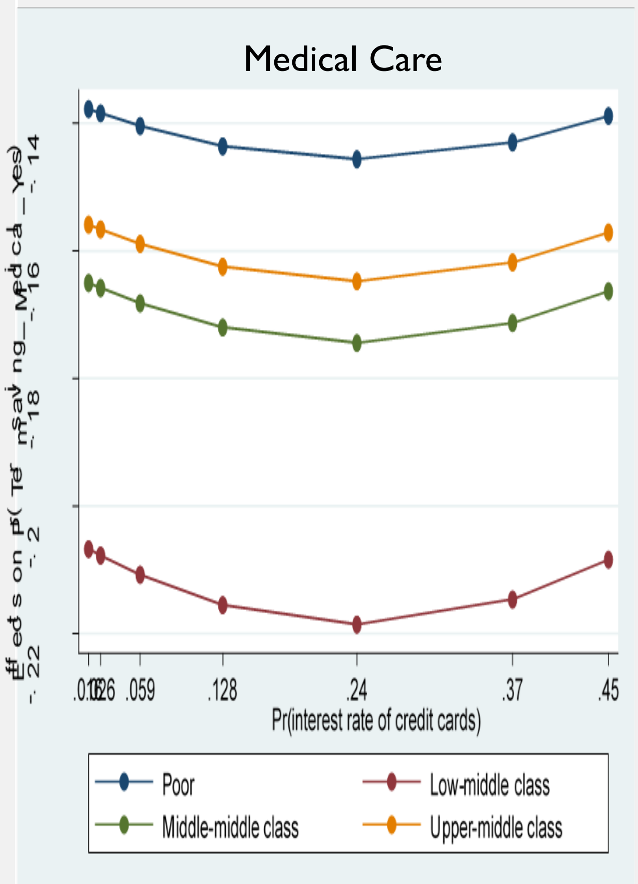
Empirical Regression Results: Determinants of Term Saving for Foreseeable Expenditures (Marginal effects estimates, two-steps regime switching method)

	Children Education		Home Purchase		Medical Expenses	
Variable	Do not add debt	Add debt costs	Do not add debt	Add debt costs	Do not add debt	Add debt costs
Constraints (predicted)	-0.15	-0.36***	-0.003	-0.43***	-0.34	-0.67***
Poor	-0.38***	-0.25***	-0.23**	-0.01	-0.26**	-0.07
Low-middle class	-0.32***	-0.31***	-0.21**	-0.12	-0.25***	-0.18
Middle-middle class	-0.27***	-0.21***	-0.12	-0.05	-0.2***	-0.15
Upper-middle class	-0.16***	-0.13***	-0.05	-0.01	-0.18***	-0.16***
black	0.11***	0.13***	0.05	0.11***	0.1	0.18***
Hispanic	0.05***	0.05*	0.08***	0.11***	0.09**	0.18
Asian	0.06***	0.06*	0.05	0.06	0.13*	0.16**
ln(income)	0.09***	0.09***	0.06***	0.05***	0.06***	0.06***
Ln(permanent income)	-0.16	-0.16***	0.16	0.08	0.16	0.14
St.d.[(ln(income)]	0	0.00***	0	0.00	0	0.00**
Age	0.04	0.10	0.03	0.07	-0.13	-0.14
College education	0.07***	0.07***	0.02	0.01	0.07***	0.09***
Family size	-0.03	-0.04***	-0.03	-0.01	-0.05*	-0.07***
Homeowner	0.01	0.02***	-0.04	-0.06***	0.02	0.05
Single	-0.03	-0.01	-0.01	0.04	-0.03	-0.02
Employed	0.06***	0.04	0.14***	0.13***	0.09***	0.10**
Self-employed	0.02	0.01	0.12***	0.13***	0.1***	0.14**
Percent predicted	--	0.70	--	0.66	--	0.55
R-Square	0.11	0.09	0.05	0.04	0.08	0.06
Observations	34,033	34,033	20,427	20,427	12,154	12,154

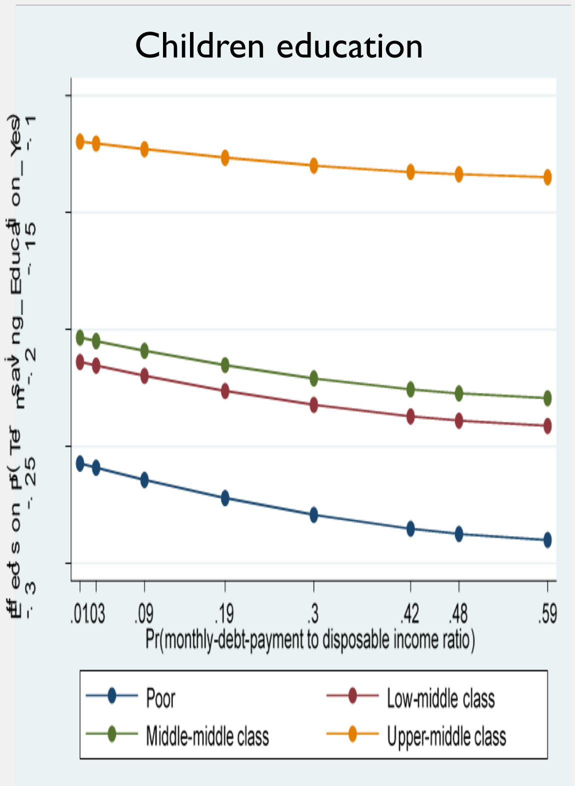
EMPIRICAL RESULTS
MARGINAL EFFECTS OF INTEREST RATE OF CREDIT CARDS ON SAVING FOR VARIOUS FORESEEABLE MOTIVES

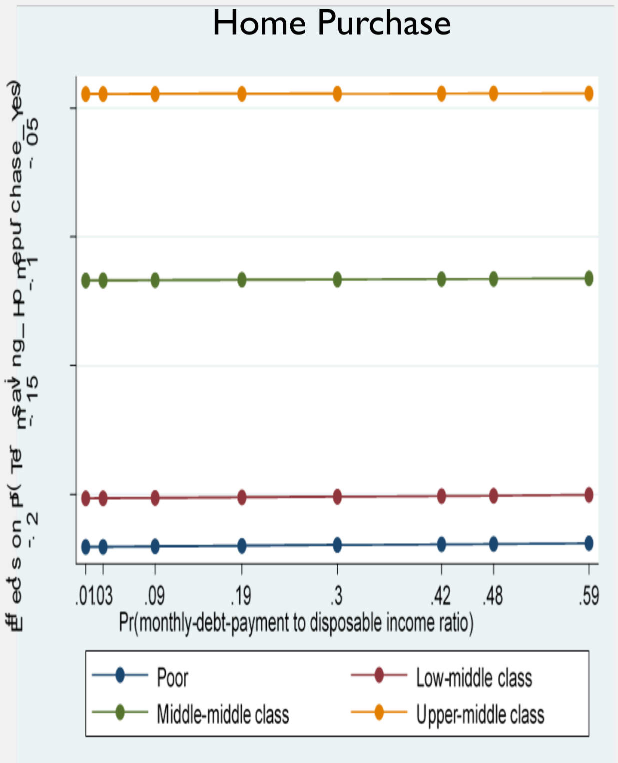


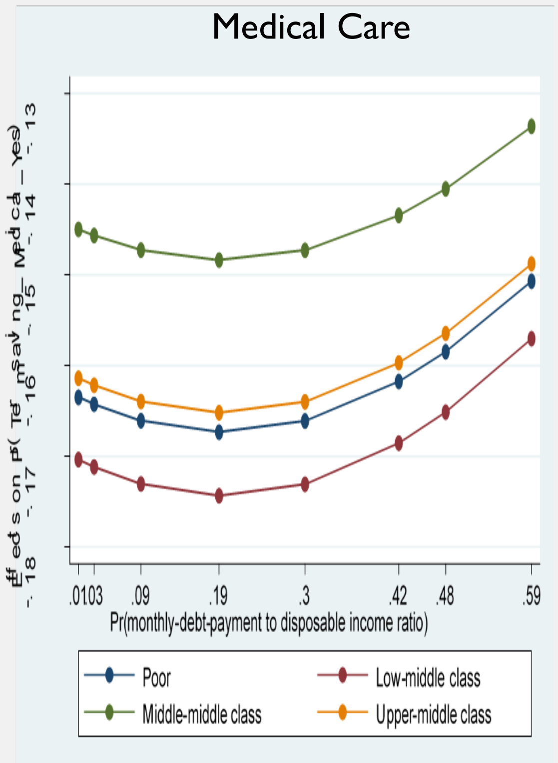




EMPIRICAL RESULTS
MARGINAL EFFECTS OF MONTHLY-DEBT-PAYMENT TO DISPOSABLE INCOME RATIO ON SAVING FOR VARIOUS FORESEEABLE MOTIVES







POLICY IMPLICATIONS

- Liquidity constraint is important for resolving various macroeconomic policy questions, such as the size of the multiplier from tax cuts and the effectiveness of fiscal policies to stimulate the economy (previous research).

- IMPLICATIONS OF FINDINGS IN THIS STUDY

- Increased variance in income shocks and debt have led to liquidity constraints that impact the future wellbeing of the middle class.
- Relevant for policies that seek to address the ability of households to face spending for education and that seek to promote homeownership.
- The issues raised regarding debt bring the question as to which ways are best to approach wealth building, whether to facilitate access to credit or promote saving?
- The findings on the effects of accessing additional liquidity with credit cards are relevant for policies that address competition in the credit market which might affect the costs of borrowing.