Understanding Loan Aversion

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Motivation

- Some concern that prospective college students avoid borrowing to the detriment of their investment in human capital
- If students are credit constrained and avoid borrowing, it may lead to
  - Enrolling part time instead of full time
  - Delaying enrollment
  - Attending a two-year instead of a four-year college
  - Working too many hours while enrolled

These actions can reduce the likelihood that students will persist and complete B.A.s (DesJardins, Ahlburg, & McCall 2006; Stinebrickner & Stinebrickner 2003; Long & Kurleander, 2009; Monaghan & Attewell, 2014)

Research Questions

1. How might behavioral economics be used to better understand how students think about borrowing and repayment?
   - Default Options
   - Time-Inconsistent Preferences
   - Framing/ Labeling Effects
   - Choice Overload/ Complexity
2. To what extent is loan aversion present among high school students, community college students and adults not enrolled in college?
   - What is the relationship between different measures of loan aversion?
   - Does loan aversion vary by individual characteristics?

Default Options

- "Official" endorsement of choice
  - Organ donation, car insurance plan choices, consent to receive e-mail marketing, retirement savings outcomes
  - Automatic enrollment in employee savings plans have the largest impact on participation for those workers who have the least amount of financial sophistication (Choi et al., 2004)

Make One Form of Income-Contingent Repayment the Default Option

- Fewer loan defaults
- Improve job matching

Time-Inconsistent Preferences

- People discount future income inconsistently over time
- Present bias, "myopic"
  - Use precommitment devices to help them with longer term planning

Move to a Uniform Passive Repayment System
  - Auto-debit; Paycheck withholding
  - Pre-commitment device for future benefits
  - Requires collaboration of the Treasure and DoE

Framing/ Labeling Effects

- How choices are presented affects people's selections
- Gain/ Loss asymmetry
  - An increase in income (such as a tax rebate) framed as a gain from the current state is likely to be spent, whereas an increase framed as a return to a previous state is likely to be saved (Epley et al., 2004)

- Students are willing to accept a financial aid package with a grant but do not accept one with the same amount of a grant and an optional loan (Palameta & Voyer, 2010)
- Loan forgiveness framed as a tuition subsidy increased public interest law take-up (Field, 2009)
- Students prefer a "income share agreement" and avoid "loans" (Caetano, Palacios & Patrinos, 2011)

Survey Question

Suppose you need $10,000 to finance a one-year education program. In one year you will join the work force. How do you prefer to finance your education? (Choose one.)

- ❑ **60 monthly payments of $200**. If in any month your income is below $2,000, then you only have to pay 10% of your income that month.

- ❑ **60 monthly payments equal to 10% of your income**. If in any month your income is larger than $2,000, then you only have to pay $200 in that month.

Caetano, Palacios & Patrinos, 2011

Treatment Condition

Suppose you need $10,000 to finance a one-year education program. In one year you will join the work force. How do you prefer to finance your education? (Choose one.)

❑ **Loan**: 60 monthly payments of $200. If in any month your income is below $2,000, then you only have to pay 10% of your income that month.

❑ **Income Share Agreement**: 60 monthly payments equal to 10% of your income. If in any month your income is larger than $2,000, then you only have to pay $200 in that month.

Caetano, Palacios & Patrinos, 2011

Probability of choosing an income-share agreement over a financially equivalent contract labeled a loan

	(1)	**(2)**	**(3)**
	High School Sample	Community College Sample	Adult Sample
Treatment	0.109***	0.0739**	0.0116
	(0.0198)	(0.0230)	(0.0346)
School Fixed Effects	Yes	Yes	
Constant	0.841***	0.446***	0.481***
	(0.104)	(0.0183)	(0.0958)
Observations	1,697	3,118	843
R-squared	0.032	0.017	0.017

Choice Architecture & Complexity

Choice architecture

- Faced with too much choice, consumers experience cognitive overload, i.e. classic jam study (Bottie & Iyengar, 2006)
- Faced with complex decisions about investment, people do not choose optimally (Iyengar, Jiang and Huberman, 2004; Cronqvist & Thaler, 2004)

Complexity

- The complexity of the financial aid system creates a barrier to student access (Dynarski & Scott-Clayton, 2007)
- Financial Aid Rules for qualification and monthly payments can be difficult to understand
  - Definition of financial hardship
  - Qualifications for different repayment periods
  - Enrollment requirements while borrowing

Reduce the Number of Repayment Options to One Form of Income-Contingent Repayment and One Form of Standard Repayment

Loan Aversion

Why are students loan averse?
- Risk Aversion
- Preferences against borrowing
  - Previous experiences in credit markets, cultural distaste for debt, personal preference
  - Revealed vs. normative preferences
  - Revealed preferences can be altered by environmental factors

- A handful of empirical studies find evidence of loan aversion (Callender and Jackson, 2005; Field, 2009; Caetano, Palacios and Patrinos, 2011; Palameta and Voyer, 2010; Goldrick-Rab and Kelchen, 2013)

- Some studies find that loan aversion particularly affects minority and/or low-income students (Caetano, Palacios and Patrinos, 2011; Palameta and Voyer, 2010; Goldrick-Rab and Kelchen, 2013)

Measuring Loan Aversion

Not much consensus in the literature on how to define or measure loan aversion

1. **Attitudes** (5 option Likert scale from strongly disagree to strongly agree) *(Similar to Callender & Jackson, 2005)*
   - You should always save up first before buying something.
   - Owing money is basically wrong.
   - There is no excuse for borrowing money.

2. **Borrow for Education**
   - Do you think it's okay to borrow money to buy or pay for education? (yes, no, don't know)

3. **Aid Packages** *(Similar to Palameta & Voyer, 2010)*
   - Would you prefer $25 cash in one week or $1,000 grant once in college?
   - Would you prefer $25 cash in one week or $1,000 grant + $1,000 loan once in college?

Data

- Collected survey data across 3 populations
  - High School Seniors (1,648)
  - Community College Students (3,760)
  - Adults (20's and 30's) without a college degree and not enrolled in college (843)
- High schools were randomly sampled among subset of racially diverse schools from multiple states (KY, TN, TX, MA, IL MI)
  - Sampling goal to achieve racial and socioeconomic diversity
- CC: TX, IL, MI, TN
- Adults: Qualtrics

Restrict our analytical sample size to those without missing responses

Questions related to
- Demographics
- Educational expectations
- Loan aversion measures

Does loan aversion exist?

	HS Sample	CC Sample	Adult Sample
You should always save up before you buy something. (Agree or Strongly Agree)	0.8993	0.8777	0.8707
Owing money is basically wrong. (Agree or Strongly Agree)	0.3198	0.2223	0.5896
There is no excuse for borrowing money. (Agree or Strongly Agree)	0.1159	0.0798	0.1234
Attitudes Scale	1.3890 (0.7960)	1.2250 (0.7406)	1.6180 (0.8420)

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Do you think it's okay to borrow for education? (No or I don't know)	0.2175	0.0915	0.1969

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Do you think it's okay to borrow for education? (No or I don't know)	0.2175	0.0915	0.1969
Avoid Loan Packages	0.4169	0.3479	0.2705
N	1,648	3,760	843

Are the measures related?

High School Sample	Attitudes towards borrowing	Belief about borrowing for education	Avoid financial aid packages with loans
Attitudes towards borrowing	1.000		
Belief about borrowing for education	0.2469	1.000	
Avoid financial aid packages with loans	0.0739	0.0896	1.000

- The different measures not well correlated
- We may not be measuring the same underlying construct or that loan aversion has different dimensions
- Has implications for how we interpret the evidence for loan aversion presented in previous literature

Does loan aversion vary by subgroup?

- Low Income Status: no difference
- Gender: Women are less likely to be loan averse on the attitudes and borrowing for education measures (effect sizes of .23-.29)
- Adult sample less loan averse than other two
- Parents attended college less loan averse
- Race: Relative to white students
  - Hispanic students are more loan averse on all measures in HS sample
  - Asian students are less loan averse on borrowing for education

Conclusions & Policy Relevance

- Loan aversion does appear to exist among respondents in our three samples, and it varies across subgroups
- However, the population of respondents classified as "loan averse" varies across measures of loan aversion
- Existence of IBR should solve risk aversion problem
  - Students should be given targeted information at the time of decision making (Dynarski and Kreisman, 2013)
  - Minimal amounts of assistance from trained professionals may help students make more optimal financial aid-related decisions (Bettinger & Long et al., 2012)

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