Financial stress and future preference

TTPI Conference on Behavioural Economics and Public Policy
9th and 10th August, 2018

A/Prof Nicholas Biddle (with Madhur Mehta and Wahyu Setiawan)
ANU Centre for Social Research and Methods

- Key social policy question:
    - How do we balance incentives and complexity?

- The case for incentives

- The old (new) poor laws (1834, from Wikipedia)
    - No able-bodied person was to receive money or other help from the Poor Law authorities except in a workhouse.
    - Conditions in workhouses were to be made harsh to discourage people from claiming

- The new (new) poor laws
    - 'You need to do approved activities to keep getting your income support payment and increase your chances of finding work'
    - 'To meet your requirements, you need to apply for jobs, or do training or study'
    - https://www.humanservices.gov.au/customer/enablers/mutual-obligation-requirements

- The case for complexity

- 'Bad Decisions Don't Make You Poor. Being Poor Makes for Bad Decisions' – Matthew Yglesias, Slate, September 3rd, 2013

- Limited-resource model of self-control.
  - Individuals have a finite amount of self-control which can be used to undertake costly behaviour that leads to long-term benefits (like education or savings) or to avoid pleasurable behaviour that leads to long-term costs (like alcohol consumption or risky behaviour).
  - 'Because the poor must overcome more urges and make difficult decisions more often than others, they are more likely to over-eat, overspend and enact more problematic behaviors' (Vohs 2013: 970).

- Scarcity (Mullainathan and Shafir 2013)
  - 'Scarcity directly reduces bandwidth – not a person's inherent capacity but how much of that capacity is currently available to use' (47)
  - 'Having to fill out forms is a potential snag for everyone, a chance to procrastinate and forget. But with their bandwidth taxed, and perhaps a bit of stigma attached, it is a bigger snag for low-income people' (221)

Australian National University

- ## Mani et al. (2013)
    - Tested cognitive capacity with and without making financial stress salient
    - Invoking financial imperatives was shown to negatively impact on test scores for those with low income but not those with high income
    - Limits: 'The causal attribution made possible by laboratory studies comes at the expense of some external validity.'

Raven's Matrices

Cognitive Control
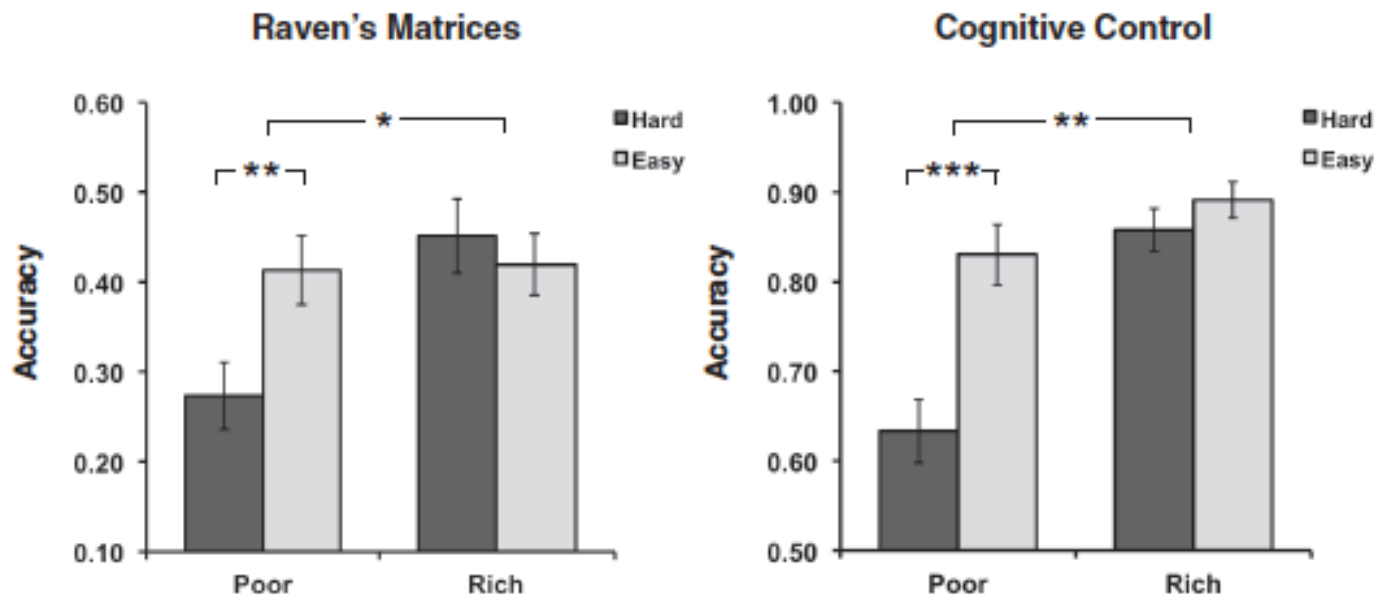
- ## Outcome 1 – Future preference
  - Most important when planning savings and spending
  - The next week; the next few months; the next year; the next 2 to 4 years; the next 5 to 10 years; More than 10 years ahead
- ## Outcome 2 – Financial risk
  - Which of the following statements comes closest to describing the amount of financial risk that you are willing to take with your spare cash?
  - Takes substantial risks; Takes above-average risks ; Takes average financial risks; Not willing to take financial risks

- ## Main explanatory variable – Raise $3k
  - Suppose you had only one week to raise $3000 for an emergency. Which of the following best describes how hard it would be for you to get that money?
  - Could easily raise emergency funds; Could raise emergency funds, but it would involve some sacrifice; Would have to do something drastic to raise emergency funds; Couldn't raise emergency funds
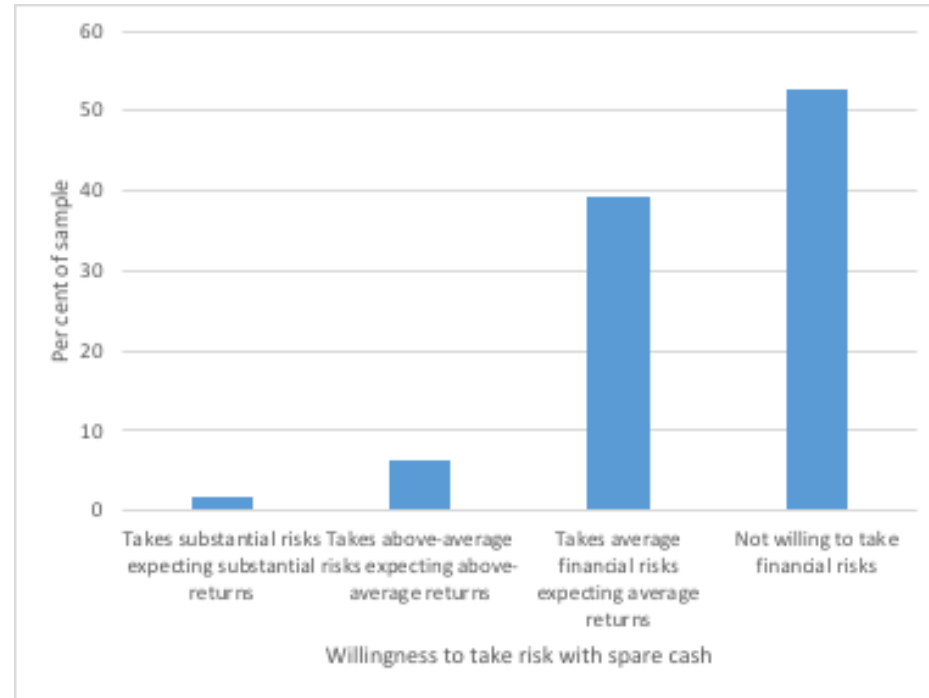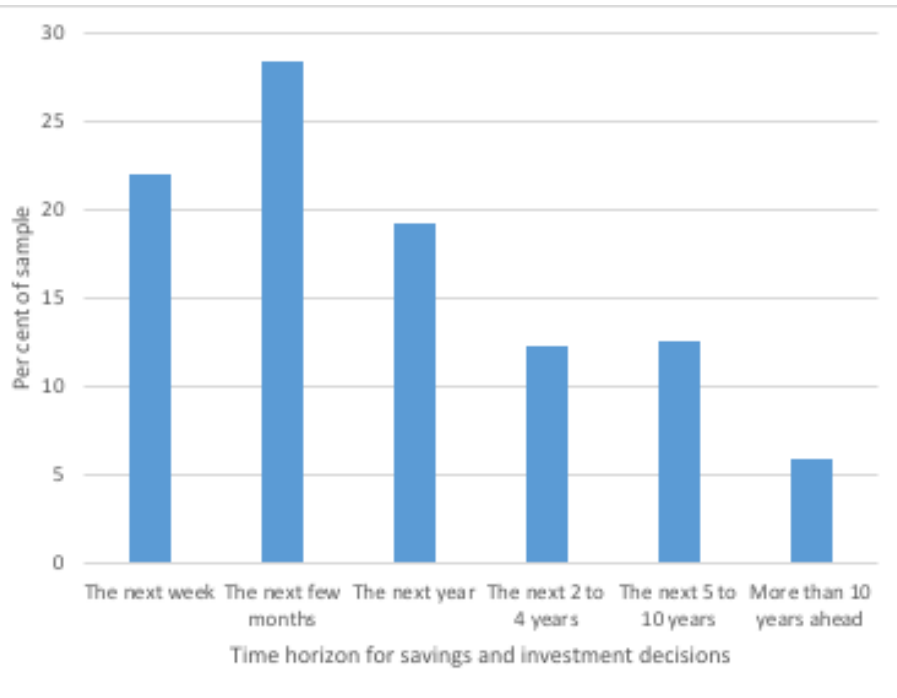
- ## Pooled lagged dependent variable model

- $Pref^*_{i,t+1} = f(\beta_0 + \beta_1 X_{i,t} + \beta_2 Pref_{i,t} + \beta_3 Raise3k_{i,t} + \beta_4 Raise3k_{i,t+1} + \beta_5 \Delta Inc_{i,t-t+1} + \varepsilon_i)$

- $Risk^*_{i,t+1} = f(\beta_0 + \beta_1 X_{i,t} + \beta_2 Risk_{i,t} + \beta_3 Raise3k_{i,t} + \beta_4 Raise3k_{i,t+1} + \beta_5 \Delta Inc_{i,t-t+1} + \varepsilon_i)$

- ## Other control variables

  - Age, Indigenous status, sex, Country of birth

- ## Fixed effects model

- $Pref^*_{i,t} = f(\beta_0 + \beta_1 Raise3k_{i,t} + \beta_2 Inc_{i,t} + \varepsilon_i + u_{it})$

- $Risk^*_{i,t} = f(\beta_0 + \beta_1 Raise3k_{i,t} + \beta_2 Inc_{i,t} + \varepsilon_i + u_{it})$

- ## Waves used in analysis

  - Outcomes and explanatory variables available in W2, W4, W6, W8, W10, W12 and W14

- Modelling results
    - Fixed effects and pooled model shows that there is a significant association between changes in financial stress and changes in future/risk preference.
    - Association is stronger for future preference.
    - Income has an (additional) association with future preference but not risk preference

- Summary statistics on future preference
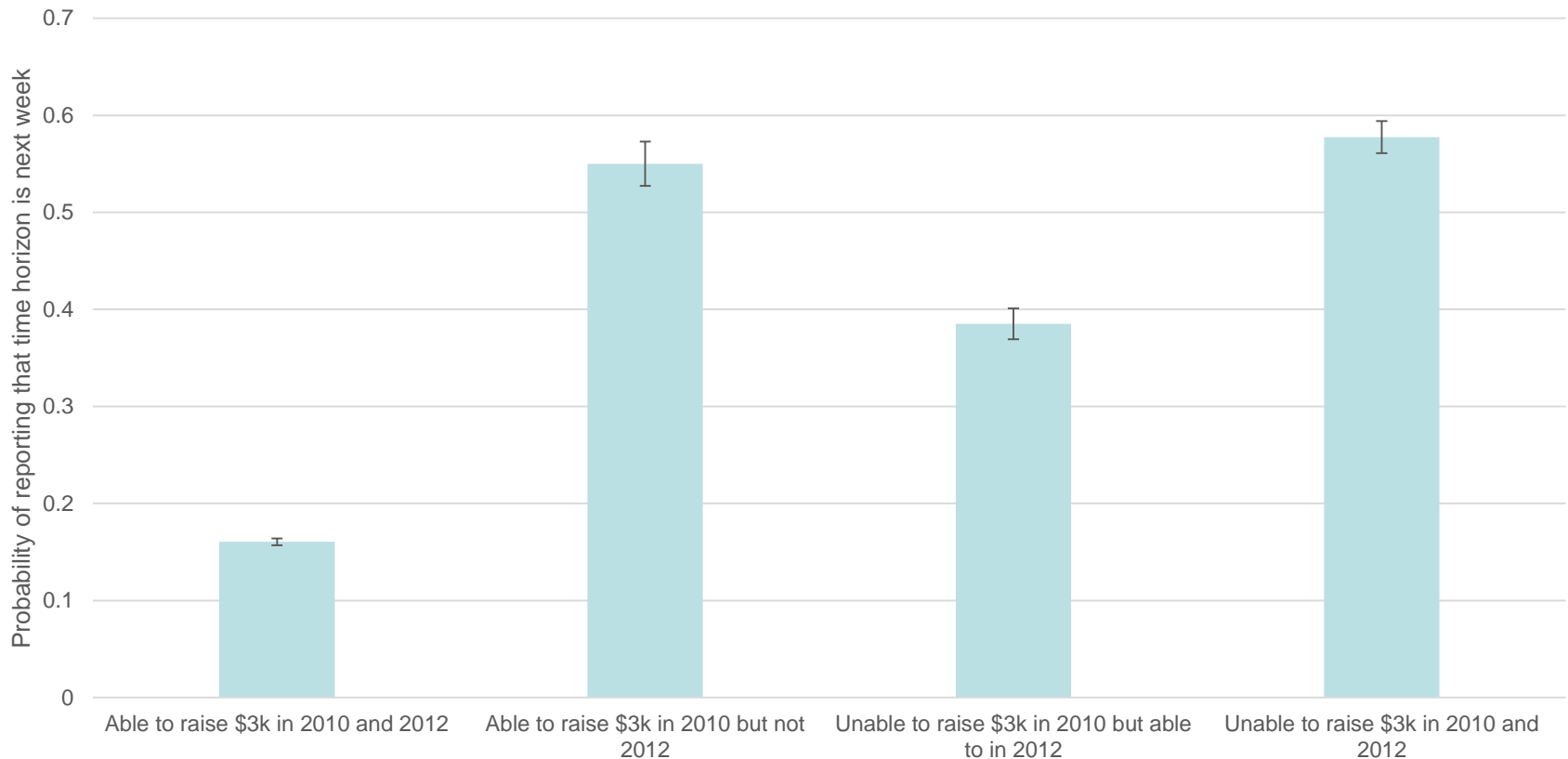
- Policy design benefits from different data sources
  - Qualitative – Low internal validity, low external validity, low measurement error – Theory generating
  - Lab – High internal validity, low external validity, small measurement error – Theory testing
  - Field – Moderate internal validity, moderate external validity, large measurement error – Theory testing
  - Observational (esp longitudinal) – Moderate internal validity, high external validity, low measurement error – Theory confirming

- (ceteris paribus) we want people in the social security system to be future planning and not (overly) risk averse
- Lab, field and observational data suggests that complexity, scarcity and financial stress can negatively impact on the above
  - Robo-debt
  - Income conditionality
  - Childcare benefits and forecasting of financial year income
  - Jobsearch requirements

nicholas.biddle@anu.edu.au

- Biddle, N., (2011). "Income, work and Indigenous livelihoods" in Measures of Indigenous wellbeing and their determinants across the lifecourse: 2011 CAEPR Online Lecture Series.

- Koh, T. Y. (2012). "KEY IDEAS IN BEHAVIOURAL ECONOMICS—AND WHAT THEY MEAN FOR POLICY DESIGN." Behavioural Economics and Policy Design: Examples from Singapore World Scientific Publishing Company, Singapore.

- Mani, A., S. Mullainathan, E. Shafir and J. Zhao (2013). "Poverty impedes cognitive function." science 341(6149): 976-980.

- Mullainathan, S. and E. Shafir (2013). Scarcity: Why having too little means so much, Macmillan.

- Vohs, K. D. (2013). "The poor's poor mental power." Science 341(6149): 969-970.