A Quantitative Assessment of Heterogeneous Altruism on Family Transfers

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Introduction

Context: transfers are quantitatively significant throughout the child's lifecycle

- Parent-child transfers average around 2% of total income
- US unemployment spending comprises 0.82% of total income
- Share of parents who give transfers is approximately 15-20%
- Transfers are given/received at all points in the lifecycle

Quantitative macro life cycle models incorporate inter-vivos transfers via altruism:

- Standard: one altruism parameter
- Cross-sectional patterns of transfers not studied

This paper:

- Document cross-sectional patterns in transfers
- Highlight essential model features and challenges to rationalizing key patterns

Preview of Main Findings

Key cross-sectional patterns:

- The extensive margin is important: most parents do not give transfers
- Transfers depend on child incomes, but not as much as parent incomes and assets

Model features and challenges:

- Homogeneous altruism: overstates positive transfers and misses cross-section
- Heterogeneity in altruism: among the (1) average transfer, (2) extensive margin, and (3) cross-sectional pattern
  - Low altruism: rationalizes (1) and (2)
  - High altruism: rationalizes (2) and (3)

Heterogeneity in altruism is important for modelling transfers

- Challenging to jointly match all three moments

Data: Health and Retirement Study (HRS)

Panel data from UMichigan and the National Institute of Aging

- 1992-Present, 14 bi-annual waves
- For transfers: use HRS Family File - transformed by RAND
- $\sim$ 150,000 parent-child pairs among all waves, roughly one third are active in 2018

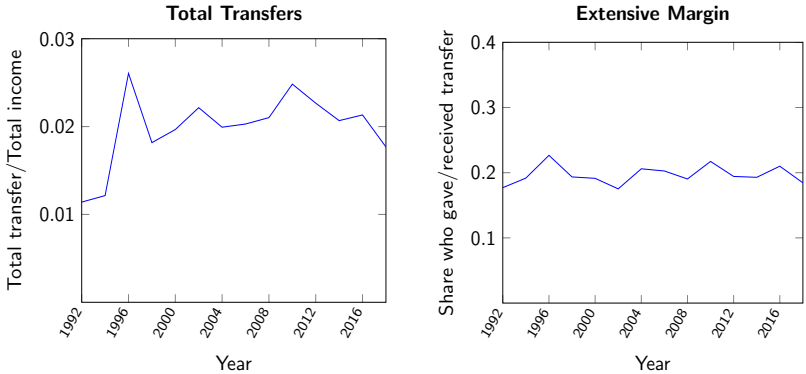
Terminology

- Extensive margin: likelihood of giving/receiving a transfer
- Intensive margin: average transfer conditional on giving/receiving a transfer

Transfers have financial value and are observed above \$500

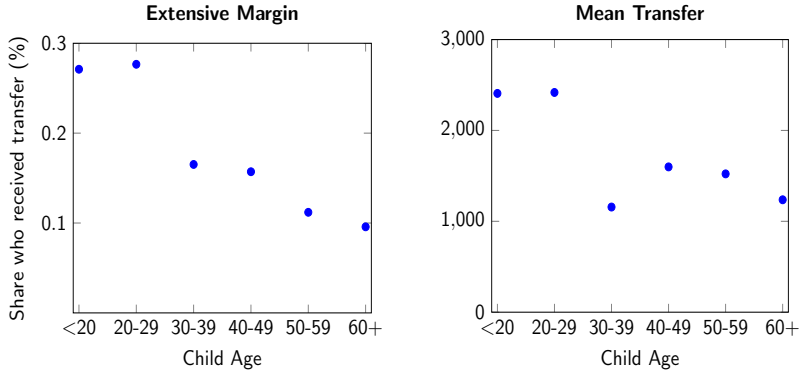
Why not SCF or PSID?

Time-series Transfers: 1992-2018



- Transfers have been relatively consistent over time in both aggregate and extensive margin
- Transfers average approximately 2% of total income

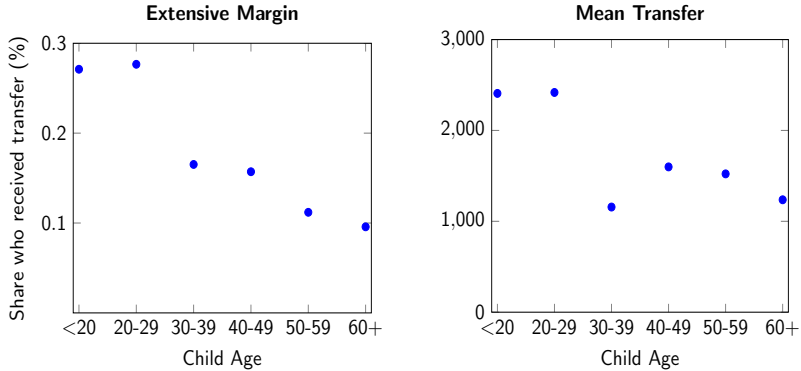
Lifecycle Transfers: 2018



- Children receive transfers across the entire lifecycle
- Approximately 67% of transfers are received after age 30

Are transfers persistent?

Lifecycle Transfers: 2018



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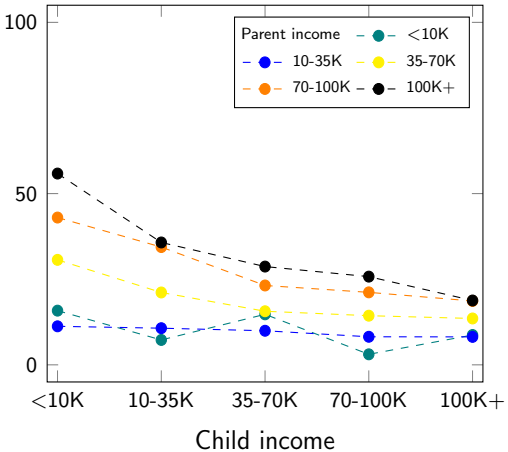
Next: transfers relative to parent and child incomes

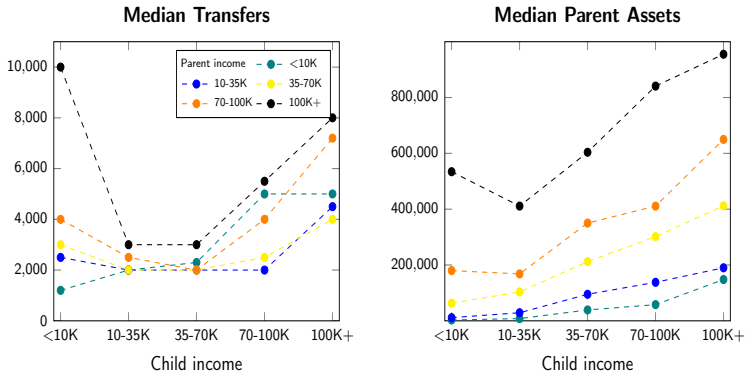
Are transfers persistent?

Extensive Margin (%): 2018 HRS Sample



- High-income parents are more likely to give transfers
- Parents are most likely to give transfers to low-income children

Intensive Margin



- Conditional on giving a transfer, most parents increase transfers with child incomes
- Transfers are increasing in parent incomes
- Child incomes and parent assets are positively correlated

Literature

Empirical

McGarry & Schoeni (1995): inter-vivos transfers are unequal within households and progressive in child income

McGarry (1999): transfers are negatively correlated with child income, bequests are uncorrelated

Hochguertel & Ohlsson (2009): transfers are only partially compensatory for income differences

McGarry (2016): controlling for individual-specific effects reduces relationship between transfers and child income by 1/3

- Parent assets are primarily used as a control for transfers
- No investigation of parent assets and child incomes

Quantitative

Akin & Leukhina (2015): self interest based risk sharing model

Slavik & Wiseman (2017): dynamic moral hazard model

Model

- Single period: saving generates utility via warm-glow
- Endowments (e_p, e_k) and parental assets (a) are exogenous
- Parents make choose a transfer and saving: t, a'
- By substitution, choosing t, a' also determines c_p, c_k

$$\max_{t,a'} \frac{c_p^{1-\sigma}}{1-\sigma} + \nu \frac{c_k^{1-\sigma}}{1-\sigma} + \frac{\psi_1(\psi_2 + a')^{1-\sigma}}{1-\sigma}$$

subject to

$$c_p = e_p + a - a' - t$$
$$c_k = e_k + t$$

where

- ν is a measure of altruism
- ψ_1 is the overall preference for saving among parents
- ψ_2 is the degree to which saving is a luxury good

Calibration

- Parents have either ν level of altruism or none at all
- Two parameters of interest: ν and the share of parents who are altruistic, γ

Internal Parameters

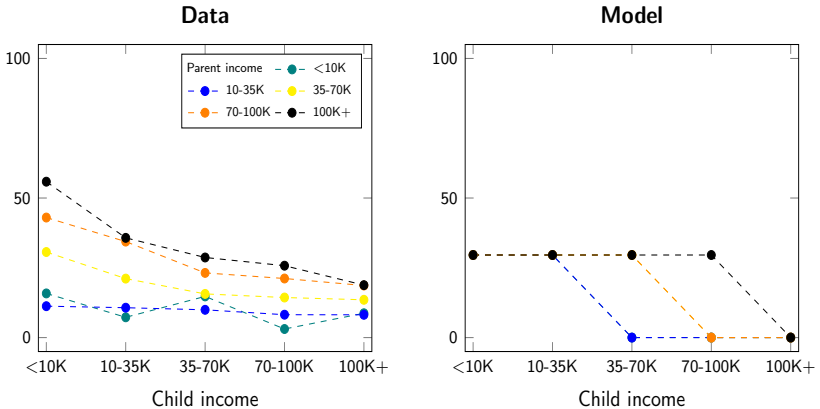
Parameter		Value	Target	Model	Data
ν	Altruism	0.00306	Average transfer	0.0375	0.0375
γ	Altruism share	0.25919	Extensive margin	0.1933	0.1933

External Parameters

Parameter		Value	Source
σ	Risk aversion	2	Literature
t_ℓ	Transfer threshold	0.0134	Data
ψ_1	Saving preference	2.726	Jones & Li (2022)
ψ_2	Saving non-linearity	13.4	Jones & Li (2022)

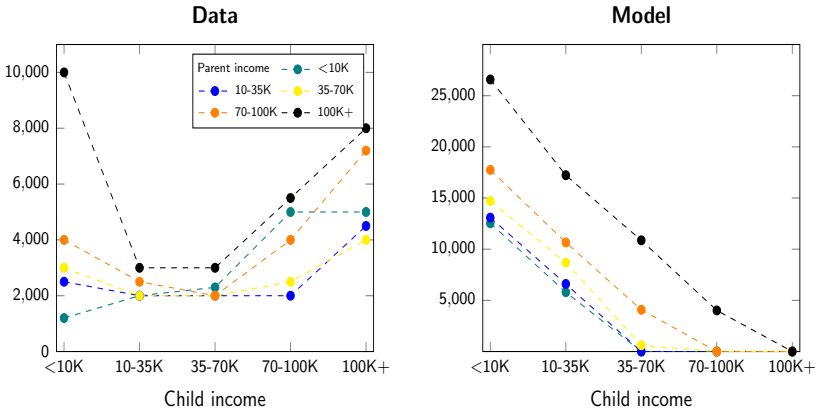
- Exclude $t < t_\ell$: threshold amount in the model survey ($500)

Results: Extensive Margin



Extensive margin is increasing in parent incomes and decreasing in child incomes

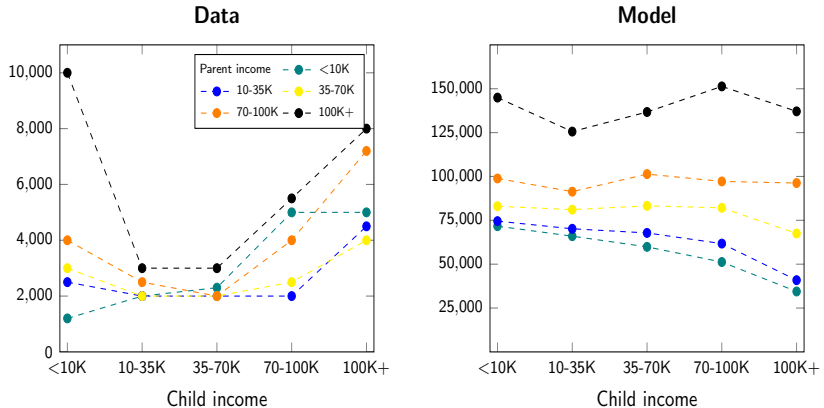
Results: Intensive Margin



Intensive margin is increasing in parent incomes and decreasing in child incomes

Results: Cross-section ($\nu = .1$)

Increasing ν beyond the calibrated value allows the model to account for the cross-sectional trend in the intensive margin



Intensive margin is increasing with respect to child income for middle-income children

Conclusion

1. Document transfers with respect to parent assets, parent income, and child income
   - Extensive margin is increasing in parent income and decreasing in child income
   - Intensive margin is increasing in both parent and child incomes
   - Parent assets are positively correlated with child income

2. Calibrate model of altruism and transfers
   - Model matches key dynamics in the extensive margin
   - With sufficiently high altruism, intensive margin can be increasing in some parent and child incomes

Thank you

SCF, PSID, & HRS

SCF

- Repeated cross-section with a focus on assets
- Tracks roughly 6500 households
- Transfers are reported on the recipient-side as bequests

PSID

- Panel data beginning in 1968
- Approximately 18,000 individuals across 5000 households
- Transfers are not tracked in the main survey
- 2 cross-sectional supplements: 1988 and 2013

HRS

- Panel data beginning 1992
- Approximately 20,000 individuals in each wave
- Transfers are reported in every wave (1992-2018)

Back

Transfers: Persistence

Approximately 40% of parents give three or more transfers

Parents who give multiple transfers (relative to a single transfer):

- Give larger transfers on average; for example:
  - For parents who give 2 transfers, the average amount is $2245
  - For parents who give 5 transfers, the average amount is $5545
- Have higher income and assets
- Are in better health

Children who receive multiple transfers have more education

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