

Consumption Inequality and Household Risk Sharing: A Life-Cycle Perspective in a Rural Developing Economy

Mutita Ariyavutikul (Benz), Puey Ungphakorn Institute for Economic Research (PIER), Bangkok,
Minchung Hsu, National Graduate Institute for Policy Studies (GRIPS), Tokyo

Introduction & Main Finding in a Nutshell

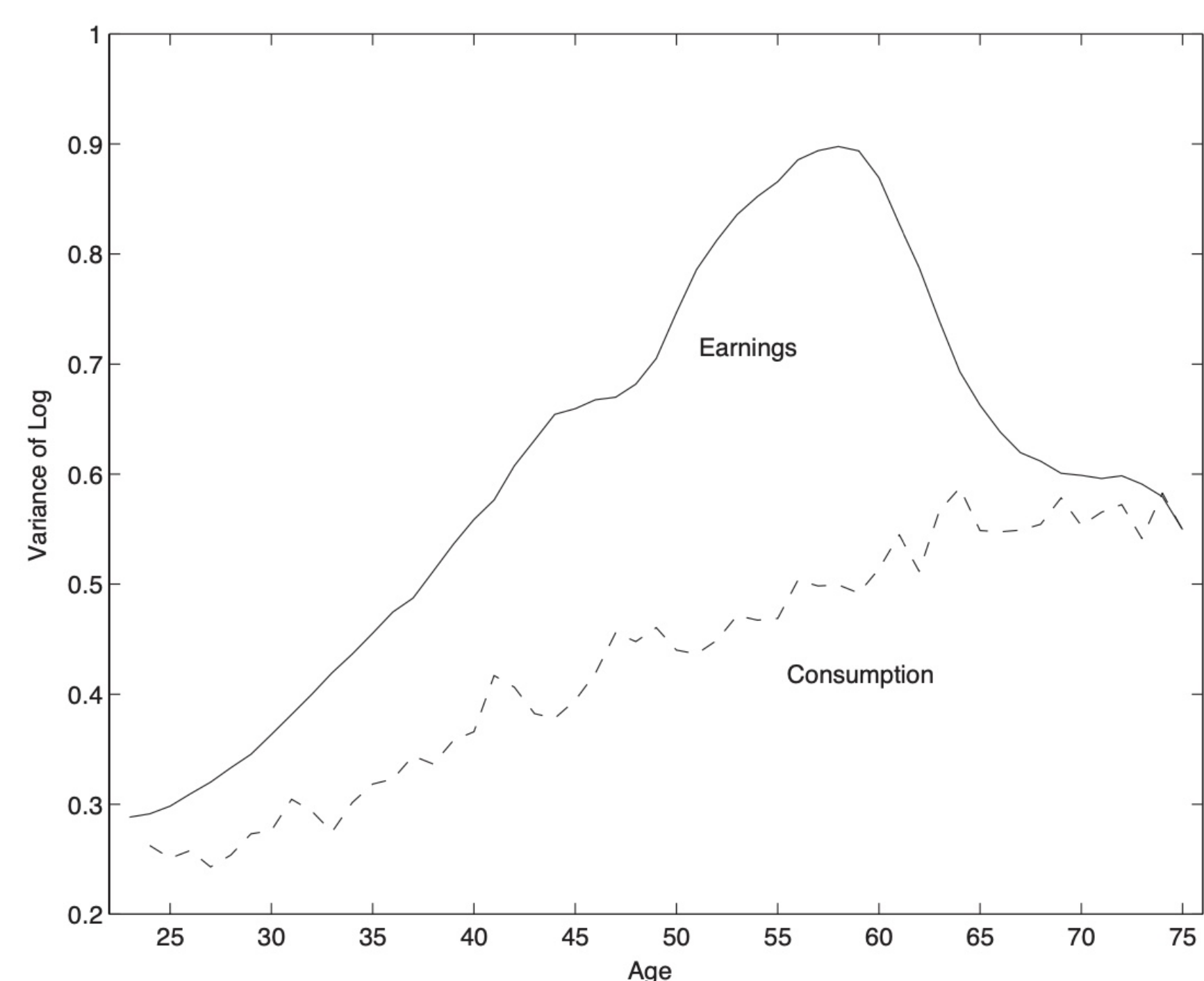
- Understanding the dynamics of economic inequality over age is important for various economic studies and policy design.
- Patterns of earnings/consumption inequalities are informative about how much insurance or the ability of risk-sharing households have in a society.
- Developed countries are studied more, such as the US.
- We found that private network transfers is important: Once it's eliminated the consumption inequality increases from 1.80% at ages 46–50 to about 8.75% at ages 71–75.

Definition - Ability of Risk Sharing

- A Life-Cycle Perspective
 - Consider an economy with ex-ante identical agents facing idiosyncratic income shocks, including persistent and transitory components
 - Income inequality increases over time due to the persistent shocks
 - Inequality patterns over age reflect the degree of consumption insurance
 - **Zero Insurance**: No means for consumption smoothing available – consumption inequality will mimic earnings inequality over age.
 - **Full insurance**: Able to fully smooth the consumption – consumption inequality will be constant over age regardless of income inequality
 - In reality, it usually **lies in the between (partial insurance)**.

Introduction – the US Case

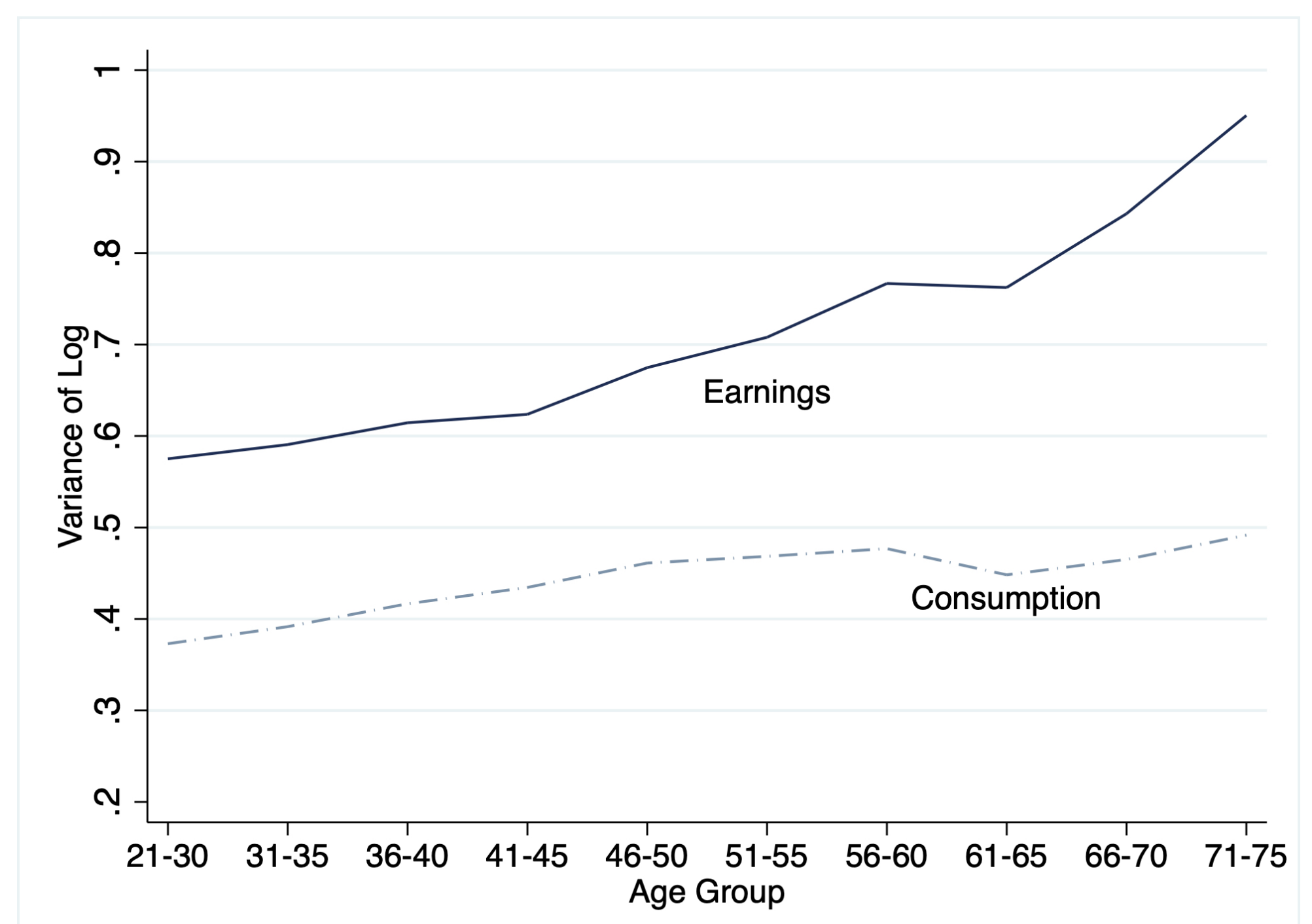
- Storesletten, Telmer, and Yaron (2004, JME)
- Based on Deaton and Paxson (1994), using PSID (1969–1992) and CEX (1980–1990) in the US.



Questions of Interest

- How do income inequality and consumption inequality evolve over the life cycle in a rural developing economy?
- What are possible the insurance mechanisms for the rural households?
 - Private transfers via household network as informal insurance devices v.s. Public transfers
- What are the roles of these insurance channels?
 - A structural life-cycle model allows us to quantify the contribution of savings, public transfers, and private networks to risk sharing.

Result: Rural Thailand



Who Receives/Gives Transfers?

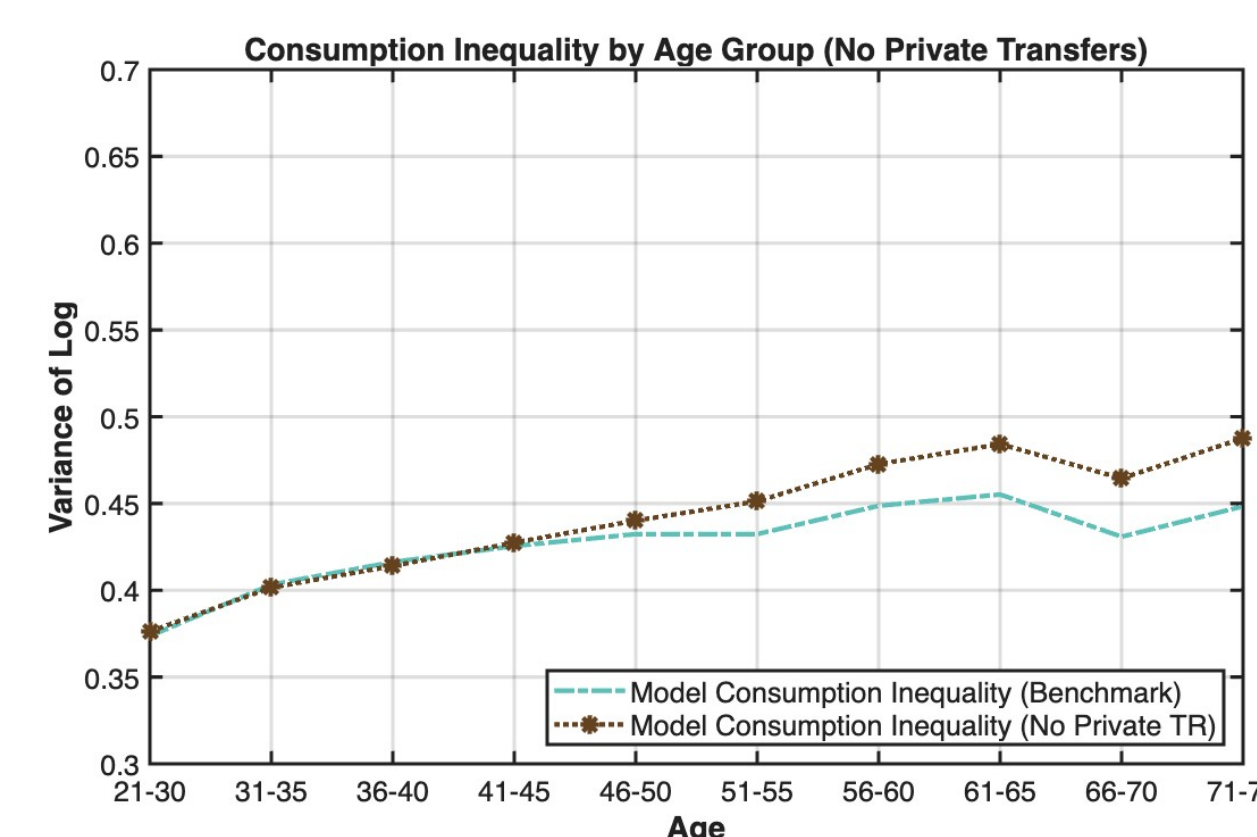
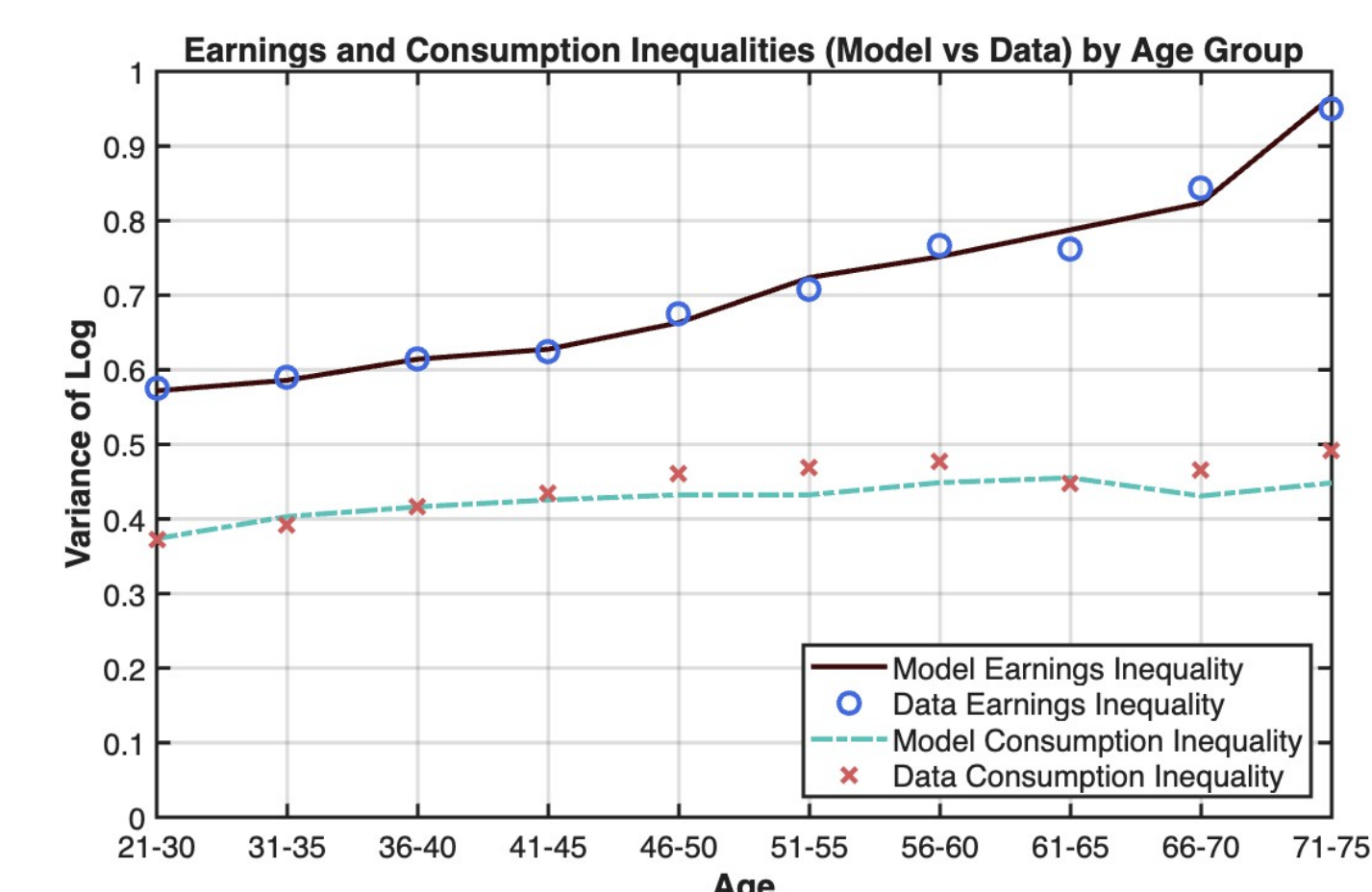
Extensive margin: probability of receiving/giving transfers

Age	Earnings	Low Net Worth		High Net Worth			
		Private TR		Public TR	Private TR		
		Receiver	Helper	Receiver	Receiver	Helper	Receiver
21–30	Q1	16%	53%	12%	15%	48%	22%
	Q3	10%	45%	13%	14%	31%	22%
	Q5	5%	62%	11%	7%	47%	17%
41–50	Q1	26%	48%	21%	27%	49%	25%
	Q3	19%	33%	26%	20%	31%	28%
	Q5	8%	47%	19%	7%	46%	21%
61–75	Q1	59%	24%	55%	64%	24%	55%
	Q3	42%	19%	68%	47%	17%	68%
	Q5	27%	21%	68%	27%	23%	68%

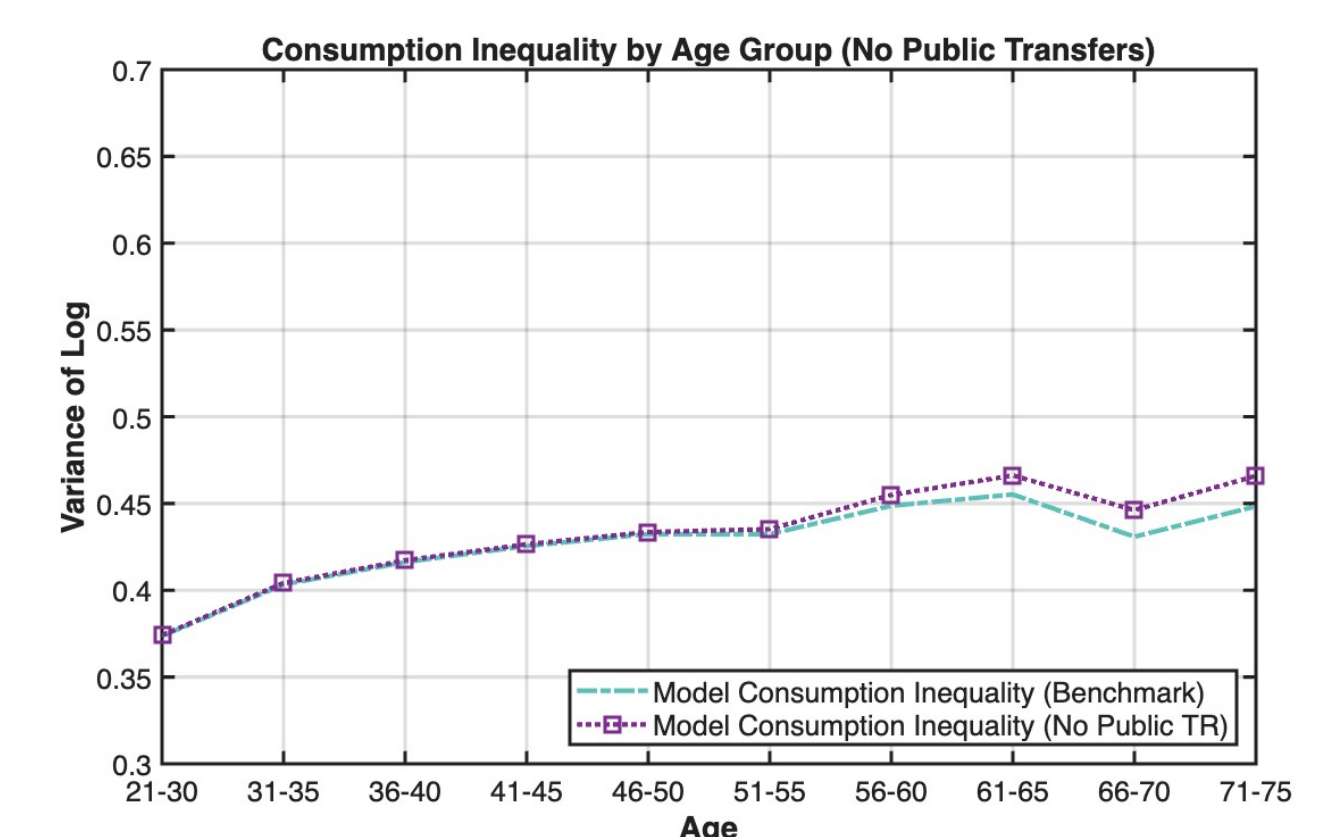
Intensive margin: median amount conditional on non-zero transfers

Age	Earnings	Low Net Worth		High Net Worth			
		Private TR		Public TR	Private TR		
		Receiver	Helper	Receiver	Receiver	Helper	Receiver
21–30	Q1	7,607	-5,951	3,344	14,333	-1,587	7,653
	Q3	12,180	-13,493	3,411	13,088	-9,129	3,848
	Q5	41,944	-34,119	4,631	35,034	-31,937	4,773
41–50	Q1	16,364	-7,468	3,832	25,091	-15,979	4,849
	Q3	18,655	-14,373	4,283	20,836	-15,607	5,156
	Q5	25,821	-34,582	4,909	25,821	-38,946	5,345
61–75	Q1	17,832	-6,040	7,527	23,649	-7,494	7,964
	Q3	20,884	-15,375	7,745	25,248	-13,193	9,055
	Q5	21,457	-22,275	9,055	23,639	-22,275	9,055

Benchmark & Experiments



No private transfers



No public transfers

SCAN FOR SLIDES



ACKNOWLEDGEMENT



CONTACT INFORMATION



Mutita Ariyavutikul (Benz)
Researcher
PIER, Bank of Thailand
MutitaA@bot.or.th