Women's risk and time preferences:
Can they predict their disempowerment?

Dr. Andreas Drichoutis
Associate Professor
Agricultural University of Athens

Background

- Follow up and extension to the 2018 study: first time Women's empowerment levels were quantified and measured

- Can we link disempowerment to RTPs (risk taking and future orientation)?

- RTPs have been shown to be fundamental preferences related to savings, investments, occupational choice, labor supply, farming decisions, entrepreneurship …

- If some women are systematically less prone to take risks or less future oriented → more likely to opt out of a wide range of economic opportunities

- More cost-effective to target interventions to the ones that really need it e.g., women that are less prone to take risks or less future oriented

Measurement of Disempowerment

1. Production: Input in productive decisions

2. Resources:

   Ownership of assets

   Access to and decisions on credit

3. Income: Control over use of income

4. Leadership: Group membership

   Active member in at least one association

5. Time: Workload Inadequate if works more than 10.5 hours per day

Measurement of Risk preferences

60%
verojatnost

40%
verojatnost

400

320

60%
verojatnost

40%
verojatnost

770

20
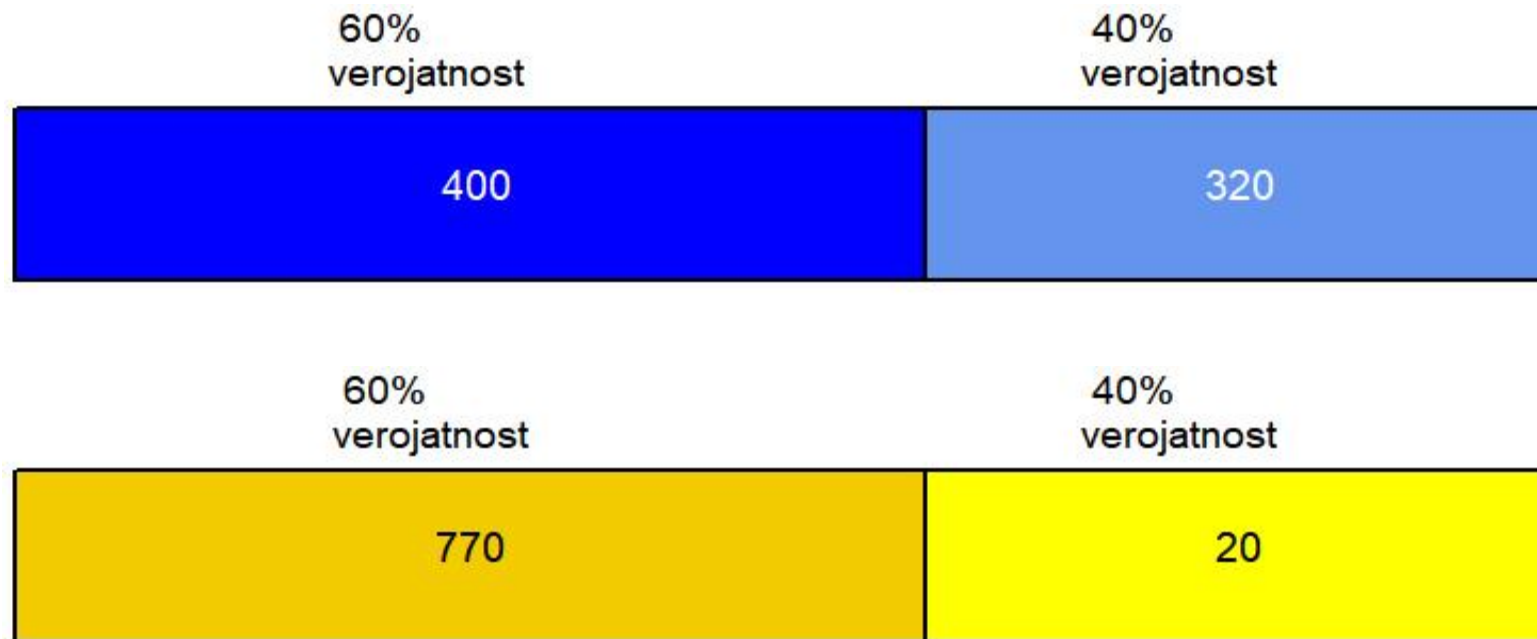
Measurement of Time preferences (future orientation)

1500 MKD paid at: **4/2/2022**
○

I'm indifferent
○

1677 MKD paid at: **5/5/2022**
○

Февруари 2022

П	В	С	Ч	П	С	Н
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

Март 2022

П	В	С	Ч	П	С	Н
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

April 2022

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

May 2022

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

90 дена

Sample (wave I)

- **Group I (control):** 100 women not eligible to apply for the measure 115 and received no money

- **Group II (rejected):** 100 women who applied for the measure 115 but received no money as being rejected

- **Group III (approved):** 100 women who applied to the program and received money

- 10 Advisors from National Extension Agency, phone interviews (November-December 2021/2022)

Sample (wave II)

- **Group III (approved):** 100 women who applied to the program and received money → After receiving training intervention

- 2 Advisors from National Extension Agency, phone interviews (November-December 2021/2022)
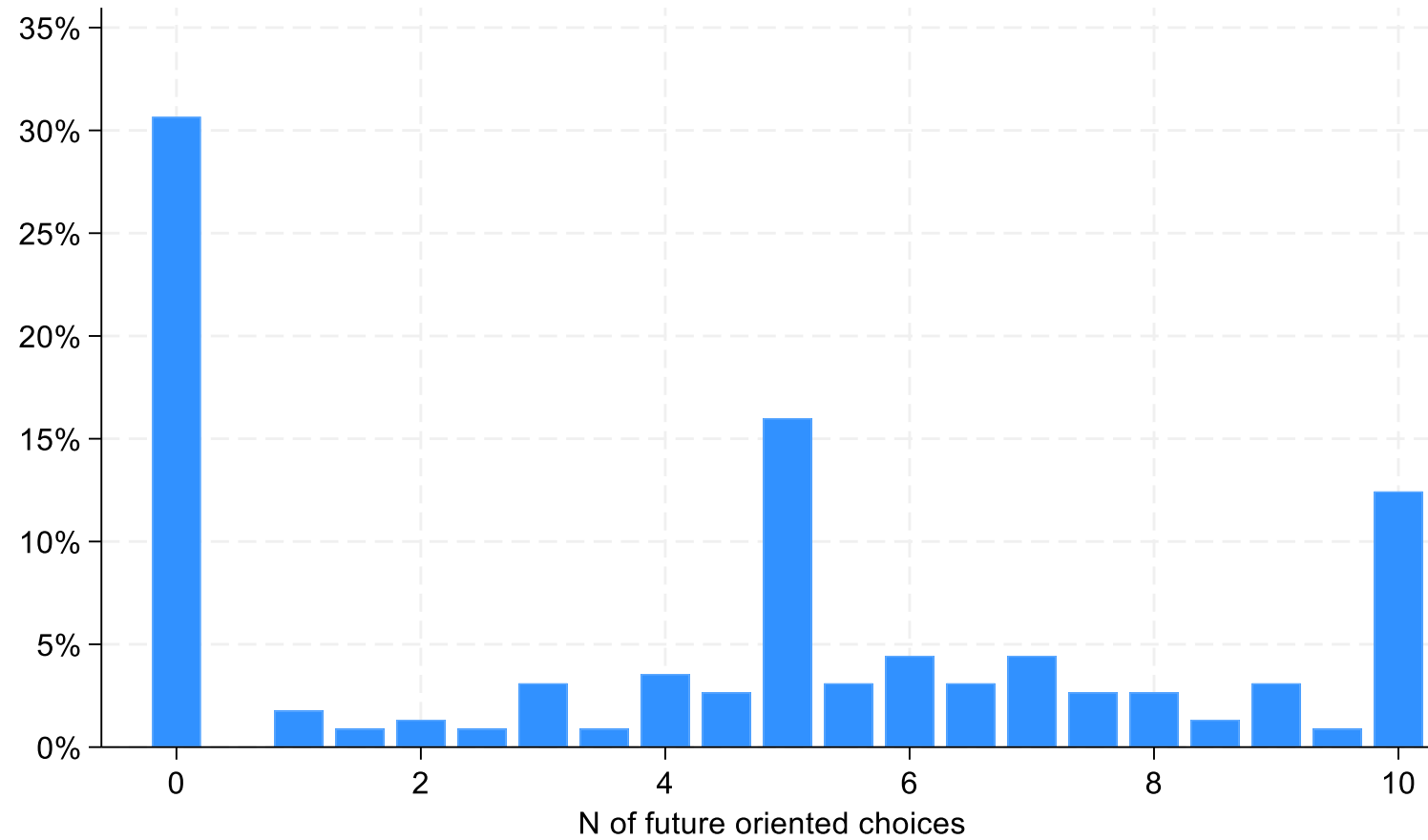
Results: Disempowerment

	Wave 1	Wave 2	Total
Control	0.384		0.384
Approved	0.196	0.207	0.202
Rejected	0.249		0.249
Overall	**0.273**	**0.207**	**0.254**

Results: Risk aversion
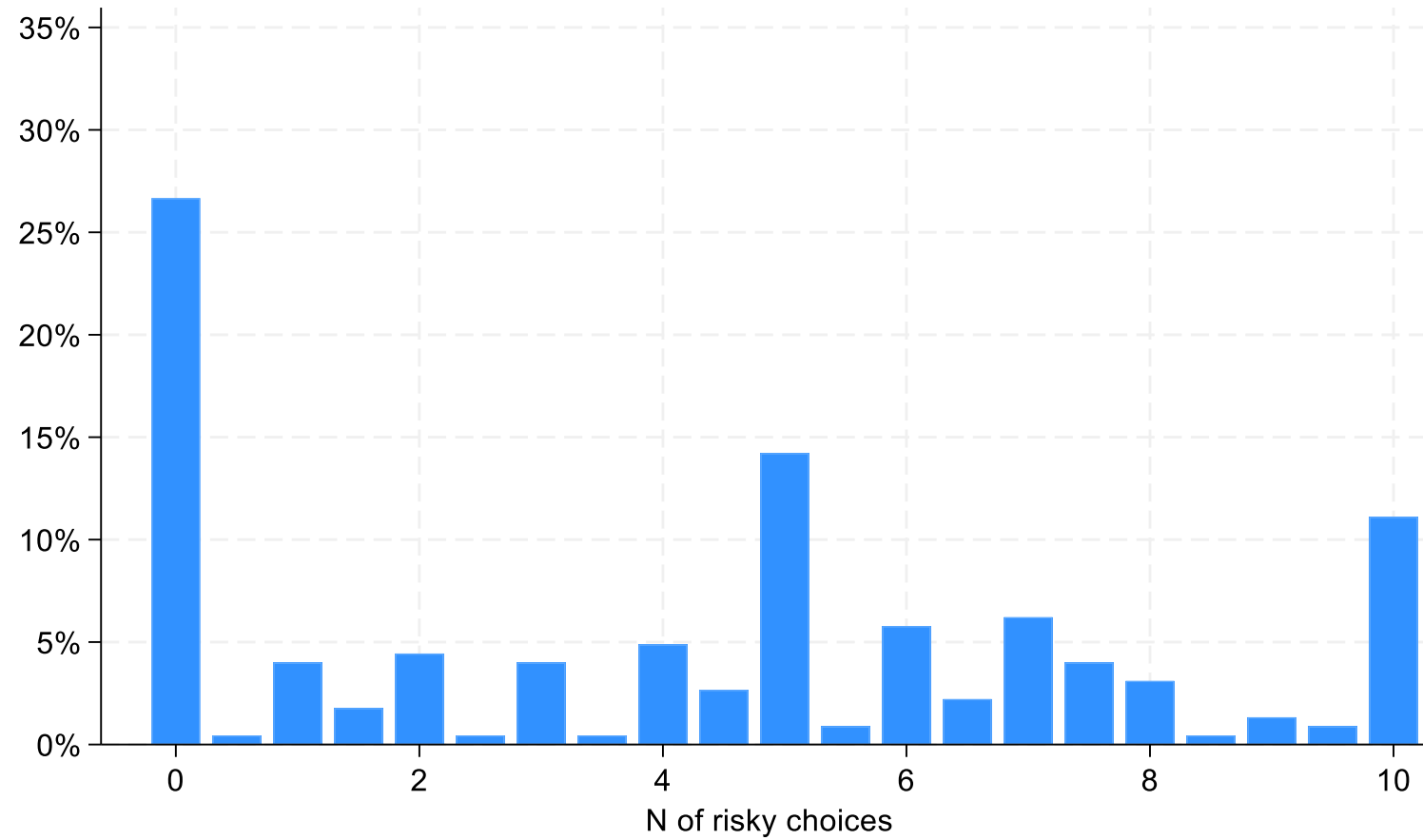
Results: Future orientation

Results: RTPs structural estimates

➤ Let the utility function be the CRRA specification:

$$U(M) = \frac{M^{1-r}}{1-r}$$

➤ Assume EUT:

$$EU_i = \sum_{j=1,2} p_i(M_j) U(M_j)$$

➤ With respect to time preferences, we can write the indifference between two income options M_t and $M_{t+\tau}$ as:

$$U(M_t) = \frac{1}{(1+\delta)^\tau} U(M_{t+\tau})$$

Results: Disempowerment and RTPs

➤ *Weak* support that either risk or time preferences are related to the Disempowerment index

➤ The group of women that were approved for the program, exhibit *lower* levels of disempowerment

➤ Women that were rejected from the program are similar disempowerment levels as the control group

➤ Intervention did not directly affect women's disempowerment level

Conclusions and recommendations

➢ We found no effect of either risk or time preferences on Disempowerment level

➢ Some indication that approved women for the program have lower DAI

➢ In the short time interval between the Intervention and measurement of disempowerment, no effects of the intervention could be detected

➢ It is highly possible that there is a time lag before any intervention can show it's full effect

➢ Repeated measurements of Disempowerment levels at 6- or 12-month intervals are recommended