## Entrepreneurship, Frictions, and Wealth

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## Claim

Entrepreneurs, borrowing constraints and bequests are important for generating distribution of wealth and savings policies in data.

Challenge: Are entrepreneurs (more) borrowing constrained?

- Hurst & Lusardi (2004) finds that probability of becoming entrepreneur conditional on wealth flat for left side of wealth dist.
- Moskowitz & Vissing-Jorgensen (2002) finds low rates of return on entrepreneurial capital - may indicate borrowing constraint not important.

## TABLE 4 Median and Mean Net Worth (in Thousands of Dollars) for Various Groups of People

	Median	Mean
Whole population	47	189
Business owners or self-employed	172	599
All business owners	205	695
Business owners but not active		
management	293	768
Business owners not self-		
employed	179	470
All self-employed	169	665
Self-employed (active) business		
owners	265	829
Self-employed and not business		
owners	36	224

$$V(a, y, \theta) = \max \{ V_e(a, y, \theta), V_w(a, y, \theta) \}$$

$$V_{w}(a, y, \theta) = \max_{c, a'} \left\{ u(c) + \beta \pi_{y} EV(a', y', \theta') + \beta (1 - \pi_{y}) EW(a') \right\}$$

$$a'=(1+r)a+(1- au)wy-c$$

$$V_e(a, y, \theta) = \max_{c,k,a'} \left\{ u(c) + \beta \pi_y EV(a', y', \theta') + \beta (1 - \pi_y) EW(a', \theta') \right\}$$

$$\mathsf{a}' = (1-\delta)\mathsf{k} + heta\mathsf{k}^
u - (1+\mathsf{r})(\mathsf{k}-\mathsf{a}) - \mathsf{c}$$

 $u(c) + \beta \pi_y EV(a', y', \theta') + \beta (1 - \pi_y) EW(a', \theta') \geq V_w(f \cdot k, y, \theta)$ 

$$a \ge 0$$
  $k \ge 0$ 

$$W(a,\theta) = \max \left\{ W_e(a,\theta), W_r(a) \right\}$$

 $W_e(a, y, \theta) = \max_{c, k, a'} \left\{ u(c) + \beta \pi_o EW(a', \theta') + \beta \eta (1 - \pi_o) EV(a', y', \theta') \right\}$ 

$$a'=(1-\delta)k+ heta k^
u-(1+r)(k-a)-c$$

 $u(c) + \beta \pi_o EW(a', \theta') + \beta \eta (1 - \pi_o) EV(a', y', \theta') \geq W_r(f \cdot k)$ 

 $a \ge 0$   $k \ge 0$ 

$$W_r(a) = \max_{c,a'} \left\{ u(c) + \beta \pi_o W_r(a') + \eta \beta (1 - \pi_o) EV(a', y', \theta') \right\}$$

$$a' = (1+r)a + p - c$$

Model hard to compute:

- only 2 ages
- only 2 values of  $\theta$  and  $\theta_L = 0$
- why have old at all?
- no tax on entrepreneurs
- $\theta$  inherited, but y is not
- borrowing constraints very tight

	CAPITAL-	Wealth Gini	Entrepreneurs	Percentage Wealth in Top			
	RATIO			1%	5%	20%	40%
U.S. data Baseline model without entre-	3.0	.8	7.55%	30	54	81	94
preneurs	3.0	.6	.0%	4	20	58	95
Baseline model with entrepreneurs	3.0	.8	7.50%	31	60	83	94

 TABLE 6

 Comparing Data and Models with and without Entrepreneurs



FIG. 5.—Saving rate for highest-ability workers. Solid line: those with high entrepreneurial ability; dash-dot line: those with no entrepreneurial ability; vertical line: asset level at which high-entrepreneurial ability individuals enter entrepreneurship.

Reply to H&L2004:

 Borrowing constraint affects savings behavior conditional on being an entrepreneur but not much affect on decision to become an entrepreneur. (but f = .85 counterfactual →% entrepreneurs ↓by 10%).



 TABLE 8

 Distribution of Rates of Return (%) for Self-Employed Business Owners

	Percentile				
	25th	50th	75th	90th	
Only income from business	0	3	25	143	
Including wages and salaries	10	40	125	520	

NOTE.-Returns are entrepreneurial income divided by business net worth. In the first line, entrepreneurial income includes only income or loss from business. The second line also includes wages and salaries received by the business owner.