Revisiting Tax on Top Income

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Structure of the paper (and today's presentation)

1. Research question
2. Model
   - Main elements
   - Agent's problem
     - Sequential illustration
     - Analytical description
   - (Equilibrium)
   - Baseline calibration
3. Policy experiments
   - (Maximize revenues)
   - Maximize welfare
     - Discussion
4. Conclusion

Forward guidance: This is NOT a published paper (yet)

Research question

Research question

What is the optimal marginal tax rate on top incomes?

- Literature displays strikingly large variation in answers
  - Diamond and Saez [2011]: 73%
  - Badel and Huggett [2015]: 49%
  - Guner, Lopez-Daneri and Ventura [2016]: 42%
  - Kindermann and Krueger [2017]: >90%
- This paper aims to contribute two related inquiries
  - What answer emerges in a model with entrepreneurial activity?
  - In this model is increasing overall or top progressivity 'more optimal'?

Model

Model: main elements

1. **Demographics:** simplified life-cycle with intergenerational altruism
   - young and old cohorts, aging is stochastic
   - when old dies, offspring receives bequest and re-enters as young
   - each household has only one offspring
   - measure of all agents normalized to 1

2. **Preferences:** $u(c_t, 1 - l_t) = \frac{c_t^{1-\sigma_1}}{1-\sigma_1} + \chi \frac{(1-l_t)^{1-\sigma_2}}{1-\sigma_2}$

3. **Technology:** competitive corporate and entrepreneurial sectors
   - each period stochastic work and entrepreneurial ability (y_t, θ_t)
   - after shock agents decide to be (corporate) worker or entrepreneur
     - work income: $y_t \times$ MPL of $F(K_t^c, L_t^c) = A(K_t^c)^{\alpha}(L_t^c)^{1-\alpha}$
     - entrepreneurial income: $f(k_t, n_t) = \theta_t \left(k_t^{\gamma}(l_t + n_t)^{1-\gamma}\right)^{\nu}$
       (l: own labor; n: hired labor; k: own and borrowed capital)

4. **Market incompleteness:** risk free assets, borrowing constraints
   - individual risk is uninsurable

Model: main elements

5. **Government:** closes the model (does not optimize!)
   - Expenditures: consume g, pay pension p, service debt $(1 + r_t)D_t$
   - Revenues: D_{t+1}, linear consumption tax τ_t^c, income tax T_t given by

$$T_t(Y_t) = \begin{cases} (1 - \lambda Y_t^{-\tau})Y_t + \tau_t^{bal} Y_t + \tau_t^k r_t a_t & \text{if } Y_t < Y_H \\ (1 - \lambda Y_H^{-\tau})Y_H + \tau_t^{bal} Y_H + \tau_t^k r_t a_t + \tau_H(Y_t - Y_H) & \text{if } Y_t > Y_H \end{cases}$$

   Y_H: top 1% income threshold, τ_t^{bal}: linear state and local gov't tax

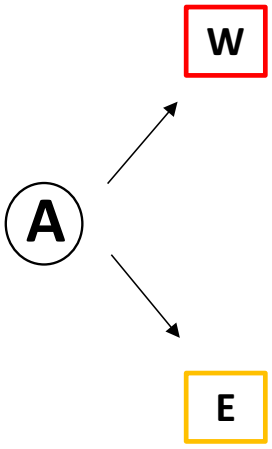
6. **Effects of changing the tax code?** Policy experiments I to IV:

Objective	$\Delta\ \tau$ (Overall progressivity)	$\Delta\ \tau_H$ (Marginal rate top 1%)
Maximize Revenue	I	II
Maximize Welfare	III	IV

Model: agent's problem

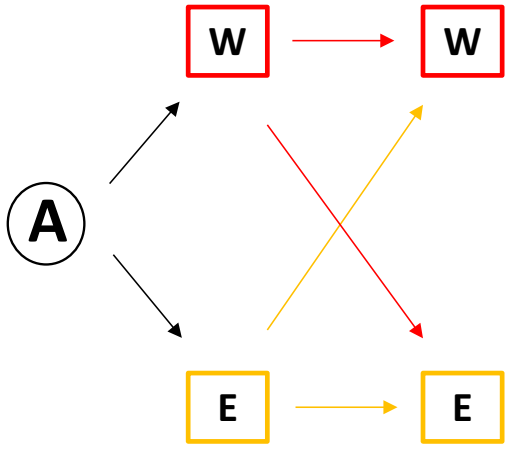
- Agent enters the economy with
  - asset endowment a_0
  - work (corporate) productivity y_0
  - entrepreneurial productivity θ_0

Model: agent's problem



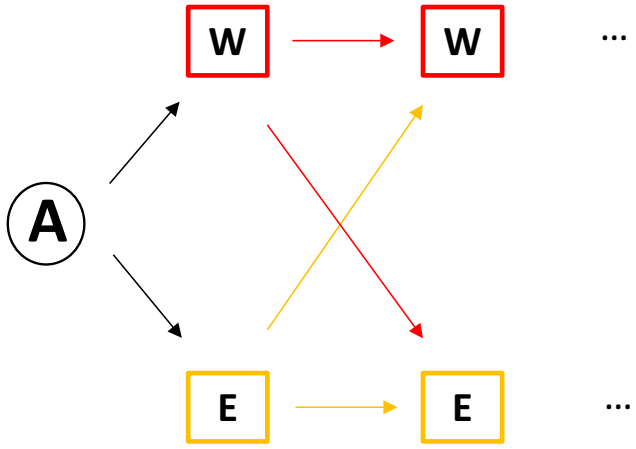
- Agent decides to work as (corporate) Worker or Entrepreneur

Model: agent's problem



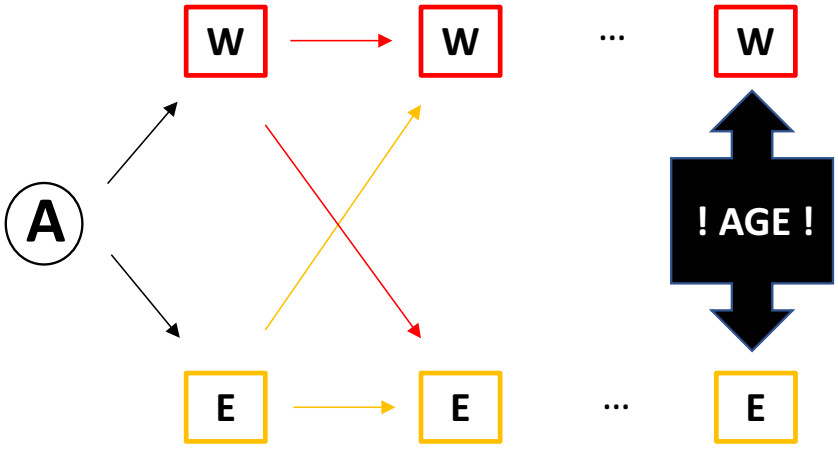
- At the start of every period each agent draws productivities (y_t, θ_t)
- They are independent and governed by $\pi(y_{t+1}|y_t)$ and $\pi(\theta_{t+1}|\theta_t)$
- After observing, agent decides to work as Worker or Entrepreneur

Model: agent's problem



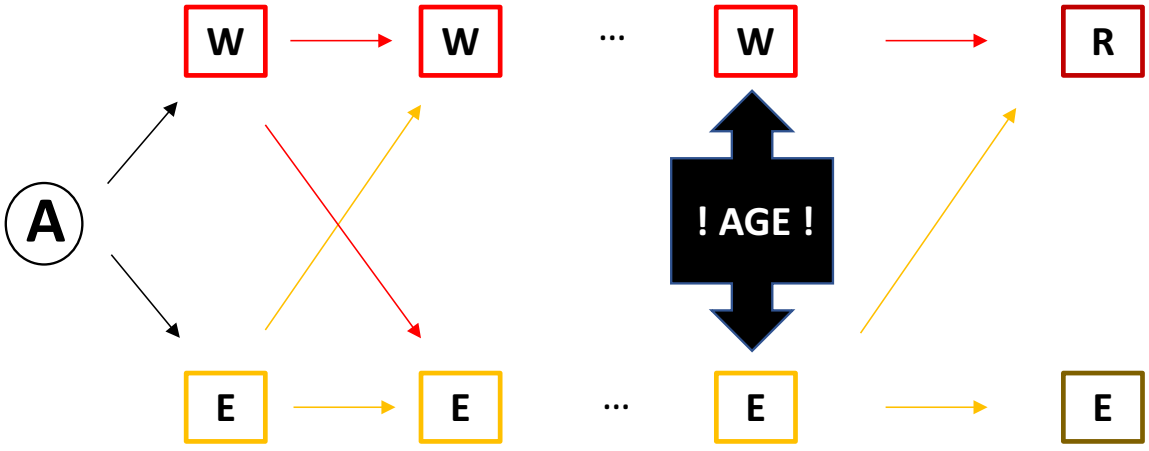
- The decision problem remains the same each period

Model: agent's problem



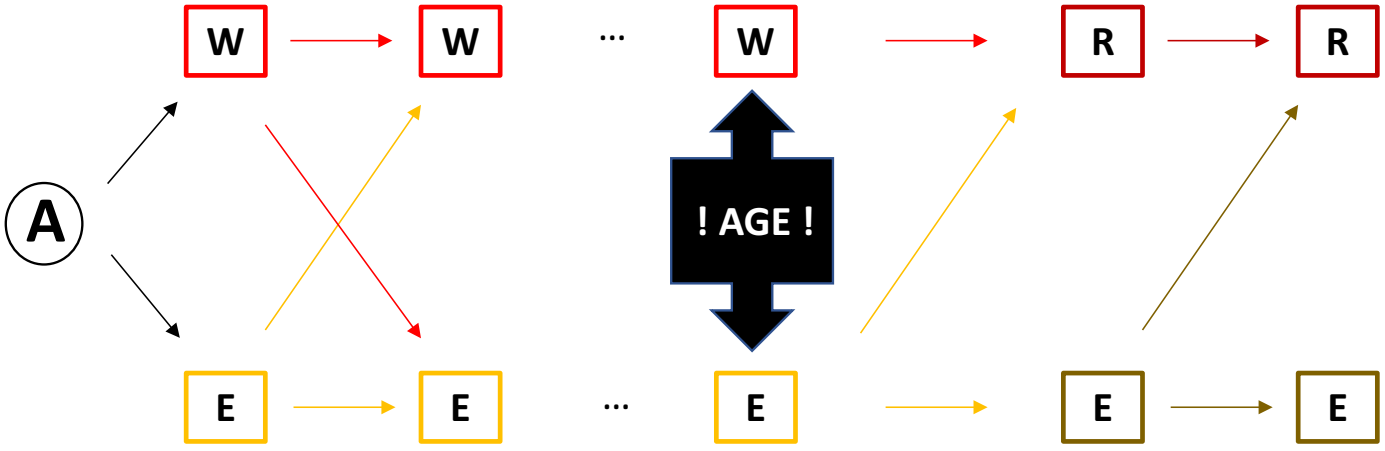
- With exogenous probability $1 - \pi_y$ agent gets hit by an age shock

Model: agent's problem



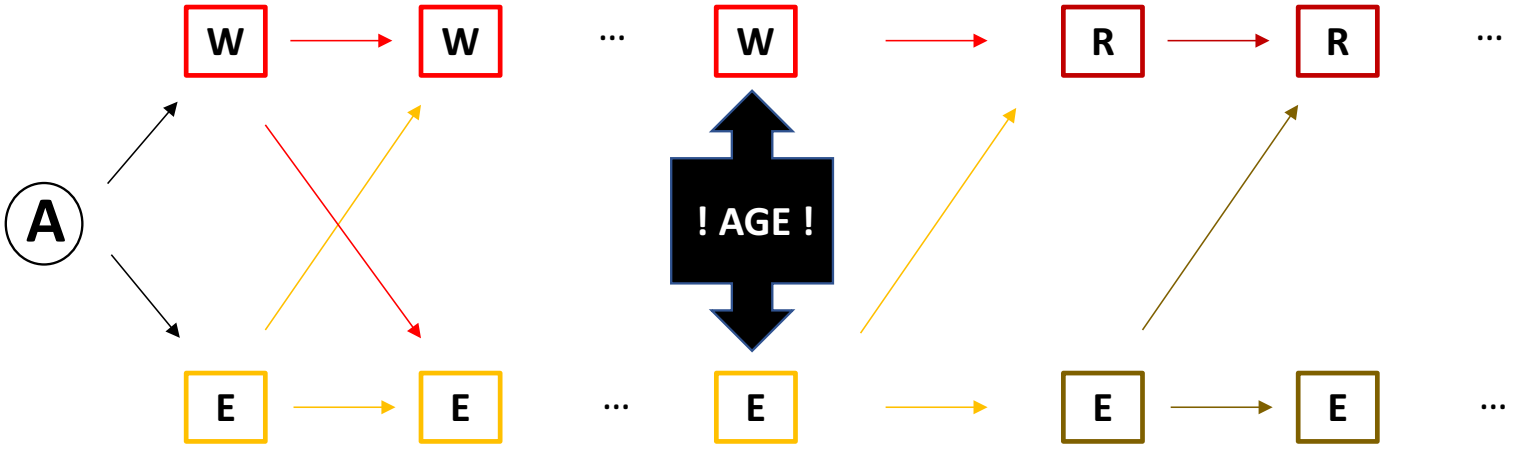
- In the period following the age shock
  - a Worker becomes Retiree
  - an Entrepreneur may continue as Entrepreneur or become Retiree

Model: agent's problem

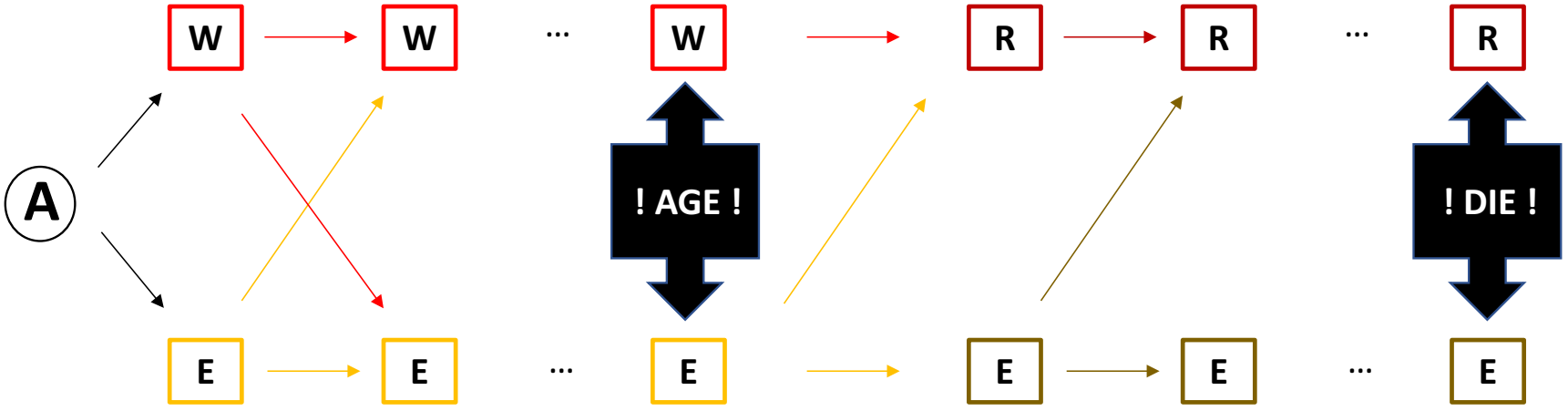


- The decision problems of R and E remain the same in every period

Model: agent's problem

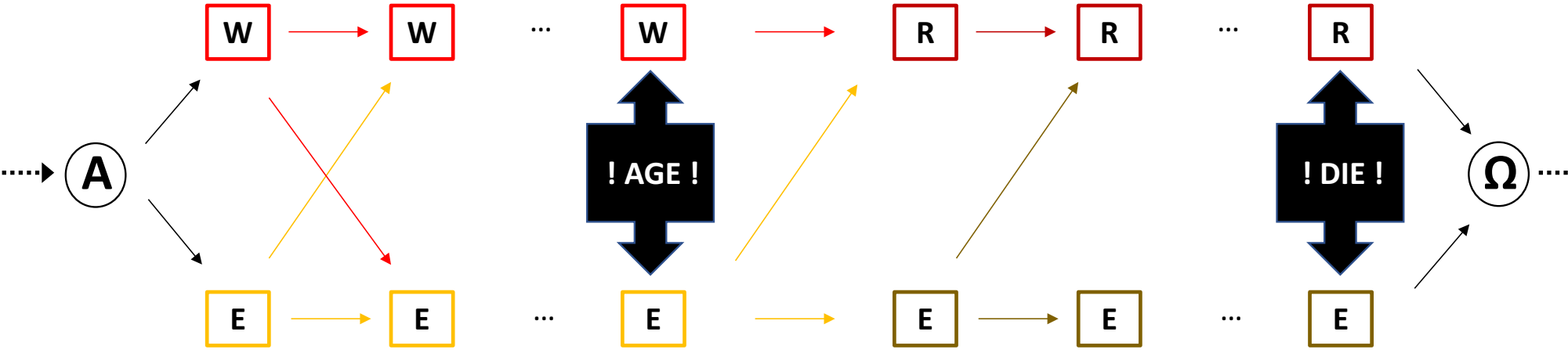


Model: agent's problem



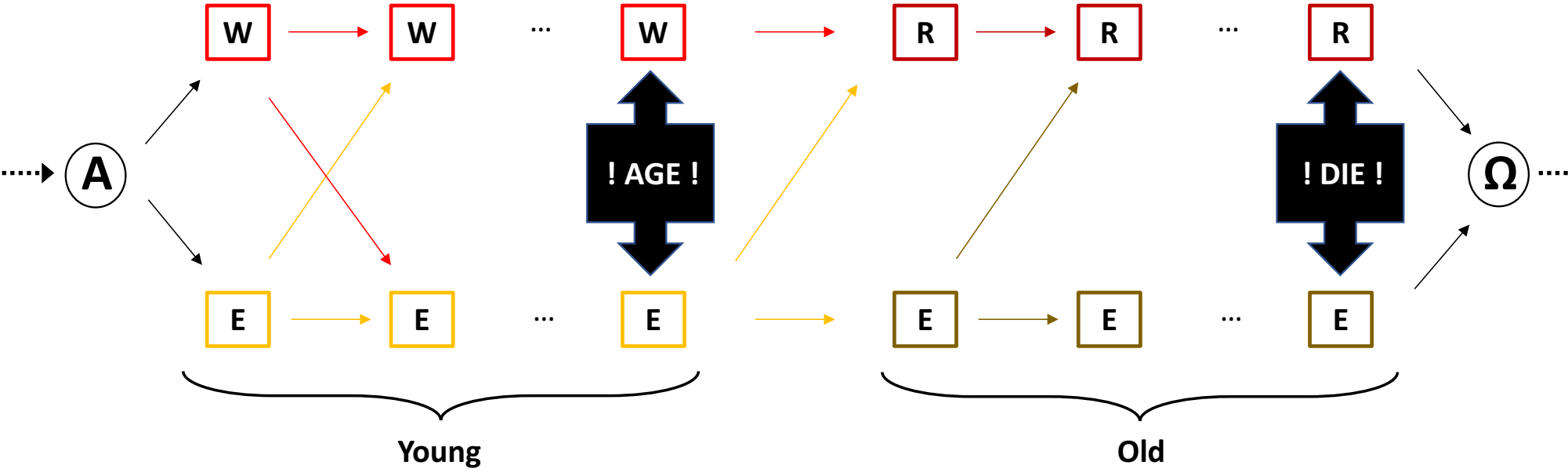
- With exogenous probability $1 - \pi_0$ agents get hit by a death shock

Model: agent's problem



- In the period after the death shock, R and E re-enter the economy
- Their initial endowments are
  - a_0: given by parental choice of a_{t+1}
  - y_0: computed using invariant distribution of y_t
  - θ_0: conditional on parent's θ_t but following same Markov process ("This reflects the fact that the offspring inherits her parent's business")

Model: agent's problem



- Completes illustration of all individual decisions

Model: young agent problem

$$V^Y(a_t, y_t, \theta_t) = \max \left\{ V_t^{Y,W}(a_t, y_t, \theta_t), V_t^{Y,E}(a_t, y_t, \theta_t) \right\}$$

Model: young worker problem

$$V_t^{Y,W}(a_t, y_t, \theta_t) = \max_{c_t, l_t, a_{t+\mathbf{1}}} \Big\{ u(c_t, 1 - l_t) + \beta \pi_y E_t[V_{t+1}^{Y}(a_{t+1}, y_{t+1}, \theta_{t+1})] + \beta(1 - \pi_y) V_{t+1}^{O,R}(a_{t+1}) \Big\}$$

s.t.

$$0 \leq l_t \leq 1$$

$$0 \leq a_{t+1}$$

$$(1 + \tau_t^c) c_t + a_{t+1} = w_t l_t y_t + (1 + r_t) a_t - T_t(Y_t^W)$$

$$Y_t^W = w_t l_t y_t + r_t a_t$$

Model: young entrepreneur problem

$$V_t^{Y,E}(a_t, y_t, \theta_t) = \max_{c_t, l_t, k_t, n_t, a_{t+1}} \Big\{ u(c_t, 1 - l_t) + \beta \pi_y E_t[V_{t+1}^{Y}(a_{t+1}, y_{t+1}, \theta_{t+1})] + \beta(1 - \pi_y) E_t[V_{t+1}^{O}(a_{t+1}, \theta_{t+1})] \Big\}$$

s.t.

$$\begin{aligned} 0 &\leq l_t \leq 1 \\ 0 &\leq a_{t+1} \\ 0 &\leq n_t \\ 0 &\leq k_t \leq (1 + d) a_t \\ (1 + \tau_t^c) c_t + a_{t+1} &= Y_t^E + a_t - T_t(Y_t^E) \\ Y_t^E &= \theta_t \left(k_t^{\gamma} (l_t + n_t)^{1-\gamma} \right)^{\nu} - \delta k_t - r_t(k_t - a_t) - w_t n_t \end{aligned}$$

Model: old agent problem

$$V^O(a_t, \theta_t) = \max \left\{ V_t^{O,R}(a_t), V_t^{O,E}(a_t, \theta_t) \right\}$$

- Recall: This is NOT the problem of a retiree but of an old agent
  - who was an entrepreneur in the period before aging
  - or who currently is an (old) entrepreneur

Model: old retiree problem

$$V_t^{O,R}(a_t) = \max_{c_t, a_{t+\mathbf{1}}} \Big\{ u(c_t, 1) + \beta \pi_O V_{t+1}^{O,R}(a_{t+1}) + \beta(1-\pi_O) E_t[V_{t+1}^{Y}(a_{t+1}, y_{t+1}, \theta_{t+1})] \Big\}$$

s.t.

$$\begin{aligned} 0 &\leq a_{t+1} \\ (1+\tau_t^c)c_t + a_{t+1} &= (1+r_t)a_t + p - T_t(Y_t^O) \\ Y_t^O &= r_t a_t + p \end{aligned}$$

Model: old entrepreneur problem

$$V_t^{O,E}(a_t, \theta_t) = \max_{c_t, l_t, k_t, n_t, a_{t+1}} \Big\{ u(c_t, 1 - l_t) + \beta \pi_O E_t[V_{t+1}^O(a_{t+1}, \theta_{t+1})] + \beta(1 - \pi_O) E_t[V_{t+1}^Y(a_{t+1}, y_{t+1}, \theta_{t+1})] \Big\}$$

s.t.

$$0 \leq l_t \leq 1$$
$$0 \leq a_{t+1}$$
$$0 \leq n_t$$
$$0 \leq k_t \leq (1 + d)a_t$$
$$(1 + \tau_t^c)c_t + a_{t+1} = Y_t^E + a_t - T_t(Y_t^E)$$
$$Y_t^E = \theta_t \big(k_t^\gamma (l_t + n_t)^{1-\gamma}\big)^\nu - \delta k_t - r_t(k_t - a_t) - w_t n_t$$

Model: Competitive equilibrium in stationary steady state

Some notation and model specific features

- States and distributions
  - agent's state vector $s_t = (a_t, y_t, \theta_t, \xi_t)$ where $\xi_t \in \{YW, YE, OE, R\}$
  - entire state space is given by $\mathbb{S} = \mathbb{R}_+ \times \mathbb{Y} \times \Theta \times \Xi$
  - transition matrix $\Gamma_t(s_t, s_{t+1})$ given by optimal policies and exogenous processes $\pi(y_{t+1}|y_t)$ and $\pi(\theta_{t+1}|\theta_t)$
  - agent distribution $\Phi'_{t+1} = \Gamma_t(s_t, s_{t+1})'\Phi'_t$
- In stationary steady state
  - $\Phi_t = \Phi^*$
  - $D_t = D^*$

Model: Competitive Equilibrium

A CE is a set of value functions, agent policies, factor inputs and prices, government debt and taxes such that

- given r, w, tax function $T(\cdot)$, tax rates τ^c, τ^{bal}, τ^k and pensions p
  - allocations c_t, a_t, l_t, k_t, n_t max agent's problem $\forall s_t \in \mathbb{S}$
  - $r_t = MPK^C - \delta = MPK^E - \delta$
  - $w_t = MPL^C = MPL^E$
  - capital markets clear:
    $\int k_t(s_t)d\Phi_t(s_t) + K_t^c + D_t = \int a_t(s_t)d\Phi_t(s_t)$
  - labor market clears:
    $\int n_t(s_t)d\Phi_t(s_t) + L_t^c = \int l_t(s_t)d\Phi_t(s_t)$
  - government budget holds:
    $\int [T_t(Y^s) + \tau_t^c c_t(s_t)]d\Phi_t(s_t) + D_t = g_t + p\ \pi_R + (1 + r_t)D_t$
  - resource constraint holds:
    $g + \int c_t(s_t)d\Phi_t(s_t) + \int a_{t+1}(s_t)d\Phi_t(s_t) = F(K_t^c, L_t^c) + \int f(k_t, n_t)d\Phi_t(s_t)$
  - Φ associated with saving policy, $\pi(y_{t+1}|y_t)$ and $\pi(\theta_{t+1}|\theta_t)$ is Φ^*
  - government debt is constant (at D^*)

Model: baseline - fixed parameters

Parameter		Value
Preferences, technology, and demographics		
Risk aversion	σ_1	1.5
Inverse of Frisch elasticity	σ_2	1.67
Capital share	α	0.33
Technology	A	1
Probability of staying young	π_y	0.978
Probability of staying old	π_o	0.911
Depreciation	δ	0.06
Entr. return to scale	ν	0.88
Entr. borrowing constraint	d	0.5

Labor income process and social security payments		
Autocorrelation	ρ	0.958
Pension/average annual income	p	40%
Public purchases, government debt, and taxes		
Fraction of government spending to output	g	0.035
Fraction of government debt to total capital	D	0.27
Consumption tax	τ_c	5%
Capital tax	τ_k	7.4%
State and local tax	τ^{bal}	5%
Revenue requirement	λ	0.911
Tax progressivity	τ	0.053

- Parameter values come from various papers
- Except: Age and death shock probabilities so that average working and retirement periods are 45 and 11 years (80% young in eq.)

Model: baseline - calibrated parameters

Calibrated parameter		Value
Discount factor	β	0.9396
Entrepreneurial ability	$\{\theta_0, \theta_1, \theta_2\}$	$\{0,\ 1.8,\ 2.75\}$
Entr. transition probabilities	see eq. 33	
Entr. capital share	γ	0.45
Disutility from working	χ	1.9
Standard deviation of productivity shock	σ_y	0.18
Value of highest productivity	y_6	11.5
Probability of having highest productivity	π_6	0.002
Probability of staying highest productivity	π_{66}	0.9307

- 'Superstars and transitions' to match empirical earnings and savings
- work ability: [0.1612 0.3043 0.5744 1.0840 2.0459 11.4870]
  - top transitions:
    $\pi(y_6|y_{6^C}) = 0.002$, $\pi(y_6|y_6) = 0.931$;
    $\pi(y_{3^C}|y_6) = 0$, $\pi(y_3|y_6) = 0.069$
- entrepreneurial ability: [0 1.8 2.75]
  - top transitions:
    $\pi(\theta_2|\theta_0) = 0$, $\pi(\theta_2|\theta_1) = 0.000075$, $\pi(\theta_2|\theta_2) = 0.978$

Model: baseline - targets

Targets	Data	Model
Capital to output ratio	2.9	2.9
% Entrepreneurs	7.5-7.6	7.2
% Exiting entrepreneurs	22-24	24
% Workers to entrepreneurs	2-3	2.34
% Hiring entrepreneurs	57.4-64.6	65
% Average worked hours	33	33.4
Income distribution		
Income Gini	0.55	0.56
Entr. income Gini	0.66	0.62
Worker earnings Gini	0.51	0.51
99-100% income	17.2	21.2
95-99% income	16.6	18.9
% entr. in top 1%	40	35.3
Wealth distribution		
Wealth Gini	0.85	0.84
99-100% wealth	34.1	34.5
95-99% wealth	26.8	28.7
% People at zero wealth	7-13	13.8
Ratio of median net worth entr. to workers	5.3-6.5	5.2

Model: baseline - macro and taxes

Capital	289.5%
Government debt	78.2%
Consumption	79.2%
Investment	17.4%
Government consumption	3.5%
Average hours worked	33%
Interest rate	0.27%
Tax revenues	
- Consumption tax	4.0%
- Labor tax	8.9%
- Proportional capital tax	7.9%
Pension system	
- Total pension payment	11.8%

Share of tax (in %)

	Income quintiles				
	0-20%	20-40%	40-60%	60-80%	80-100%
Data	0.3	2.2	6.9	15.9	74.6
Model	1.2	3.4	6.6	11.4	77.5

Policy Experiments

PE I and II: maximize revenue

Idea of policy experiments:

- Fix λ at baseline value and search for 'optimal' τ or τ_H

I Change overall progressivity

$\tau^* = 0.09 \rightarrow +2\%$ revenues (relative to baseline)

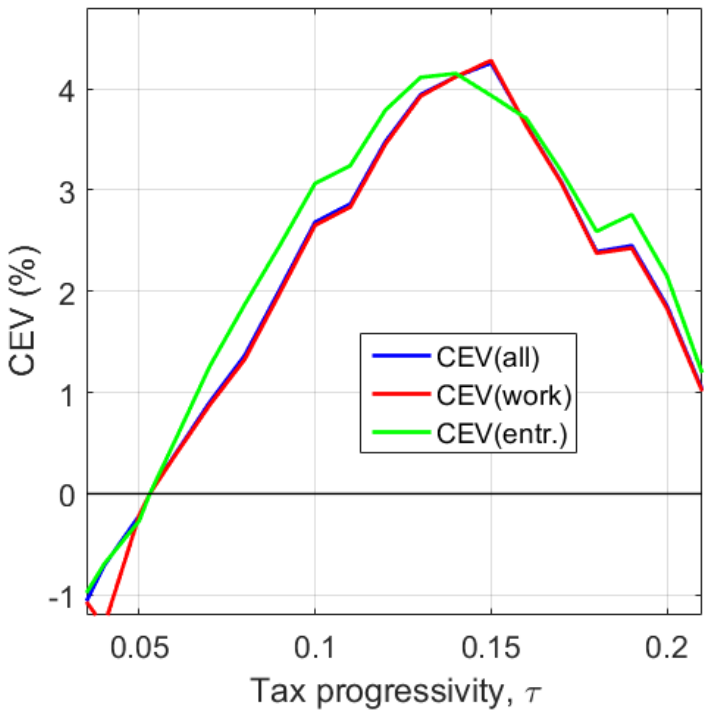
PE I - full results

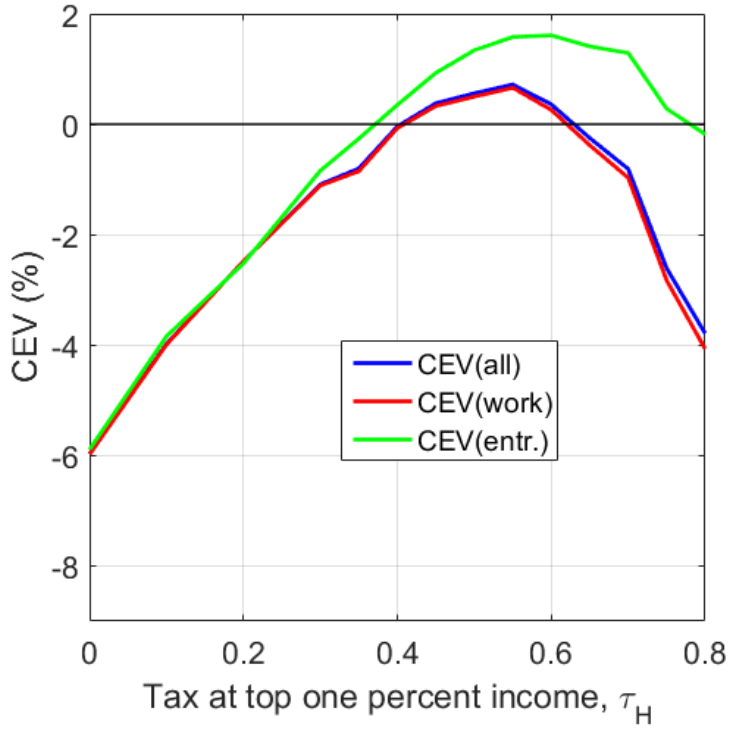
II Change top progressivity

$\tau_H^* = 0.55 \rightarrow +5.4\%$ revenues (relative to baseline)

PE II - full results

PE III and IV: maximize welfare





(welfare computed in consumption equivalent terms)

III Change overall progressivity (lhs)

$\tau^* = 0.15 \rightarrow +4.25\%$ CEV (relative to baseline) PE III - full results

IV Change top progressivity (rhs)

$\tau_H^* = 0.55 \rightarrow +0.72\%$ CEV (relative to baseline) PE IV - full results

PE III and IV - more details

Panel A	Average consumption				Average hours worked		
Experiment $\tau = 0.15$	YW	YE	OW	OE	YW	YE	OE
whole economy	93.5	71.5	95.4	57.4	87.2	87.2	72.7
top 1%	95.9	68.5	N/A	55.7	100.0	100.0	100.0
bottom 99%	95.2	98.0	95.1	92.3	85.8	85.8	71.0
67-100%	99.4	70.0	95.4	57.1	96.2	85.5	73.0
34-66%	145.7	95.6	N/A	112.2	93.2	101.5	100.0
0-33%	79.3	N/A	92.9	N/A	89.8	N/A	N/A
Panel B	Variance consumption				Variance hours worked		
	YW	YE	OW	OE	YW	YE	OE
whole economy	54.2	19.0	49.0	18.7	58.3	94.4	65.8
bottom 99%	41.1	81.0	30.0	65.4	57.7	96.3	66.6

Panel A	Average consumption				Average hours worked		
Experiment $\tau_H = 0.55$	YW	YE	OW	OE	YW	YE	OE
whole economy	100.2	82.2	100.1	74.3	99.2	97.8	89.2
top 1%	76.2	61.4	N/A	54.6	115.2	100.0	100.0
bottom 99%	102.9	92.4	100.1	99.6	99.5	98.7	90.1
67-100%	109.8	80.2	100.0	73.6	97.2	99.1	90.8
34-66%	139.4	88.1	N/A	N/A	98.4	103.8	N/A
0-33%	89.2	N/A	102.7	N/A	99.0	N/A	N/A
Panel B	Variance consumption				Variance hours worked		
	YW	YE	OW	OE	YW	YE	OE
whole economy	75.3	40.7	67.1	40.4	99.3	108.1	89.1
bottom 99%	79.2	66.9	67.1	112.0	99.7	108.7	91.2

Authors: 'welfare changes driven by changes in income and wealth'

- income distribution not very different across these three economies
- wealth distribution displays important differences:
  'wealth share of the top 10% decreases and the wealth share of most of the lower quantiles increases in the overall progressivity case'

PE III and IV - more details: income and wealth

	Benchmark	τ=0.15	τ_H=0.55
	Wealth distribution		
Wealth quintiles			
0-20%	0.2	0.1	0.2
20-40%	0.8	1.6	1.0
40-60%	3.8	5.7	4.2
60-80%	7.9	11.2	9.2
80-100%	87.2	81.4	85.4
Top			
10%	76.3	68.2	73.2
5%	63.2	54.8	58.8
1%	34.5	28.1	28.6
Wealth Gini	0.84	0.79	0.82
	Income distribution (all)		
Income quintiles			
0-20%	4.1	4.0	4.2
20-40%	7.7	7.4	7.9
40-60%	11.5	11.8	11.7
60-80%	16.9	17.4	17.2
80-100%	59.8	59.4	59.1
Top			
10%	49.7	48.7	48.7
5%	41.2	39.8	39.9
1%	22.2	19.7	19.4
Income Gini	0.56	0.55	0.55

PE III and IV - more details: taxes

Percentiles of income	Benchmark	τ=0.15	τ_H=0.55
	Average tax rate		
Top 10%	12.3	17.2	14.1
Top 5%	15.0	24.2	15.7
Top 1%	18.6	32.0	28
	Marginal tax rate		
Top 10%	16.9	29.6	20.1
Top 5%	19.5	35.6	22.3
Top 1%	22.9	42.2	55.0
	Share of tax payments		
Income quintiles			
0-20%	1.2	-4.2	0.9
20-40%	3.4	-3.2	2.7
40-60%	6.6	0.1	5.5
60-80%	11.4	5.2	9.8
80-100%	77.5	102.2	81.0

Conclusion

Conclusion

1. The paper explores a policy question but motivation is scarce
2. Some assumptions would benefit from additional details (robustness)
   - 'endogenous' borrowing constraint for entrepreneurs
   - own and hired labor perfect substitutes for entrepreneurs
   - stochastic aging induces additional precautionary savings
3. Thorough analytical characterization of model absent
4. Assessment of tax reforms is entirely numerical...
   - variance of agent's after-tax income?
   - cost of insurance via labor and asset market?
   - elaboration on elasticities? (labor and capital supply, activity)

     $\rightarrow$ comparison of results to papers such as KK 2017 hardly adequate

Thanks for your attention

PE I: results

Table 8: Changes in Progressivity-Revenue Maximizing

Progressivity	τ=0.035	τ=0.05	τ=0.07	τ=0.09	τ=0.10	τ=0.12	τ=0.15
Output	104.4	100.3	99.0	94.9	94.0	91.8	88.4
Labor supply	104.8	100.0	99.9	99.0	98.9	98.4	98.0
Capital	109.6	101.3	97.3	86.3	84.9	80.9	74.7
Revenues							
Federal income tax	96.0	99.0	102.7	105.27	**105.33**	104.0	97.7
State and local taxes	102.9	100.1	98.2	96.9	96.2	94.6	92.0
Corporate income tax	23.0	80.4	196.6	275.8	296.3	350.3	415.9
All taxes	98.9	99.5	101.0	**102.0**	101.8	100.5	96.2
Additional targets							
Interest rate	0.06	0.22	0.58	0.87	0.95	1.18	1.52
Worker avg. hours worked	104.8	100	99.4	99	98.9	98.4	98.1
Entr. avg. hours worked	100.7	100	95.2	94	91.5	87.7	86.2
Labor supply in corp sector	106	100.3	97.8	96.7	98.2	100.1	102.4
Labor supply in entr. sector	101.5	99.7	100.4	100.6	99.6	98.1	95
Capital in corp sector	111.9	101.5	91.1	84.5	84.3	81.9	78.2
Capital in entr. sector	107.1	100.7	93.7	88.2	85.5	79.9	71.2
Δ%entr. in overall economy	97.7	100	100.2	101.5	101.6	100.1	101.8

return

PE II: results

Table 9: Changes in Tax for Top 1% - Revenue Maximizing

Marginal tax for top 1%	$\tau_H = 0.2$	τ_H=0.4	τ_H=0.55	τ_H=0.6	τ_H=0.8
Output	101.1	98.2	96.1	92.4	88.7
Labor supply	100.2	99.7	99.3	98.7	97.7
Capital	104.6	95.8	91.8	87.9	84.4
Revenues					
Federal income tax	88.7	107.3	**116.3**	109.8	95.7
State and local taxes	86	86.4	86.5	86.9	86.6
Corporate income tax	49.6	141.1	195.8	248.8	314.9
All taxes	90.6	100.7	**105.4**	101.5	93.3
Additional targets					
Interest rate	0.13	0.40	0.58	0.63	1.02
Worker avg. hours worked	100.2	99.7	99.3	98.7	97.7
Entr. avg. hours worked	100.5	98.8	97.8	99.6	98.6
Labor supply in corp sector	102.4	98.6	101.7	114	125.9
Labor supply in entr. sector	99	99.3	97	88	79.6
Capital in corp sector	106	95.8	94.8	101.7	106.7
Capital in entr. sector	103.1	95.8	88.8	73.9	61.6
Δ%entr. in overall economy	97.9	100.1	100.1	101.6	101.7

return

PE III: results

Progressivity	τ=0.035	τ=0.06	τ=0.09	τ=0.12	τ=0.15	τ=0.18	τ=0.21
Output	104.3	99.2	95.1	92.1	87.1	80.3	75.1
Labor supply	104.8	99.9	99.0	98.4	91.6	90.8	90.3
Capital	109.0	97.8	87.5	81.4	74.1	64.0	56.3
Revenues							
Federal income tax	95.9	101.5	105.3	104.6	96.8	74.1	53.1
State and local taxes	113.5	94.6	77.9	73.9	87.2	129.7	168.9
Corporate income tax	34.4	134.9	249.4	336.2	385.8	501.3	593.4
All taxes	101.3	99.6	97.6	96.1	94.2	90.9	87.9
Local tax rate, τ_{bal}	5.5	4.8	4.0	3.9	4.8	7.6	10.4
Average CEV							
CEV (All)	-1.06	0.38	2.02	3.48	**4.25**	2.39	1.03
CEV (Work)	-1.07	0.37	1.99	3.45	4.28	2.38	1.01
CEV (Entr.)	-0.98	0.51	2.46	3.79	3.93	2.59	1.19
Additional targets							
Interest rate	0.09	0.38	0.78	1.13	1.43	2.14	2.89
Worker avg. hours worked	104.8	99.9	99.0	98.4	91.6	90.8	90.3
Entr. avg. hours worked	102.1	98.5	93.1	88.5	86.8	77.9	71.0
Labor supply in corp sector	106.2	100.7	96.0	99.1	99.2	110.1	120.2
Labor supply in entr. sector	101.4	99.8	100.3	98.3	93.2	84.1	77.4
Capital in corp sector	111.2	98.1	85.7	81.9	77.2	74.7	70.5
Capital in entr. sector	106.6	97.5	89.4	81	70.8	53.1	41.7
Δ%entr. in overall economy	97.7	100.1	101.5	100.1	101.7	102.2	102.3

return

PE IV: results

Marginal tax for top 1%	$\tau_H = 0$	τ_H=0.2	τ_H=0.4	τ_H=0.55	τ_H=0.7	τ_H=0.8
Output	104.4	100.7	98.5	96.2	92.7	88.7
Labor supply	105.7	100.4	99.6	99.2	98.9	97.7
Capital	108.9	102.7	96.6	93	89	83.7
Revenues						
Federal income tax	62.9	88.5	107.6	114.9	110.1	95.9
State and local taxes	189	127.9	80.5	61.6	69	96.3
Corporate income tax	85	92	127.4	155.6	236.8	334.3
All tax	101.1	100.3	99.5	98.8	97.5	95.7
Local tax rate, τ_{bal}	11	7.5	4.7	3.5	4	5.6
Average CEV						
All	-5.97	-2.48	-0.04	**0.72**	-0.81	-3.79
Workers	-5.98	-2.48	-0.07	0.66	-0.97	-4.07
Entr.	-5.89	-2.52	0.35	1.58	1.29	-0.18
Additional targets						
Worker avg. hours worked	105.7	100.4	99.6	99.2	99	97.7
Entr. avg. hours worked	104.8	103	98.8	97.6	97.5	98.4
Labor supply in corp sector	109.4	103.3	98.2	100.4	104	125.8
Labor supply in entr. sector	101.6	99.1	99.5	96.4	93.9	80.2
Capital in corp sector	111.2	104.2	96.5	95.7	97.8	105.6
Capital in entr. sector	106.6	101.1	96.8	90.3	85.5	61.3
Δ% entr. in overall economy	97.3	99.8	100.1	100	100.1	101.7

return