

Inequality, Business Cycles, and Growth: A Unified Theory of Fiscal Stabilization Policies

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Discussion

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 - (ii) Innovation & growth: top taxes $\Rightarrow$ less innovation $\Rightarrow$ weaker growth
- $\Rightarrow$ ***Contribution:*** a unified HANK-G framework combining
 - endogenous growth via entrepreneurial innovation
 - nominal rigidities (sticky wages) generating demand-driven cycles
 - heterogeneous households (differ in MPC and in innovation)
- Tractable *four-equations* representation:
dynamic IS, endogenous growth (EG), NK Phillips curve, and a Taylor rule

Theory: Three Stabilization Regimes

- Progressive financing acts through *two opposing forces*:
 - (+) resources to **high-MPC** households $\uparrow$ demand $\Rightarrow$ returns to innovation $\uparrow$
 $\Rightarrow$ **crowds in** investment
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- ▶ What decides which force wins: systematic **monetary policy** (ϕ_y) $\times$ **tax incidence** (τ_p)
- $\Rightarrow$ Three regimes (needs persistence $\rho > 0$ and income risk $s < 1$):
 1. **Dovish + progressive**: output $\uparrow$ and growth $\uparrow$ (no trade-off)
 2. **More hawkish**: output $\uparrow$ but growth $\downarrow$ (short- vs long-run *trade-off*)
 3. **Insufficiently progressive**: output $\downarrow$ and growth $\downarrow$ (ineffective on both)

Quantitative Results and Policy Lesson

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- ▶ ***Typical U.S. spending shock*** (progressive financing) $\Rightarrow$ **trade-off regime**:
 - output multiplier $\mathcal{M}_y = 1.07$, growth multiplier $\mathcal{M}_g = -0.11$
 - switch time ≈ 8 quarters; permanent output loss $\approx -0.12\%$
 - welfare still $+0.37\%$ CEV, but gains concentrated at the **bottom**
 - robust across Taylor rules, rigidities, persistence, elasticities, incidence

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- $\Rightarrow$ *Welfare-maximizing incidence*: tax the **upper-middle class** (~ 70 th pctile)
 - $\mathcal{M}_y = 1.22$, $\mathcal{M}_g = +0.02$, long-run output $+0.06\%$
 - CEV $+0.60\%$ ($+62\%$ vs. progressive), and a **Pareto improvement** (every household gains, even those taxed)

How robust is the trade-off?

► In the paper, innovation and growth arise as follows:

▷ **Toy model:** investment I_t (↓ w/ taxation)

$$g_{t+1} = \frac{A_{t+1}}{A_t} = 1 + \psi \frac{I_t}{A_t}$$

▷ **Quantitative model:** entrepreneur's investment x_{it} (↓ w/ taxation),
successful innovation with prob. $\zeta(x_{it}) = 1 - \exp(-\gamma x_{it})$

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- How are those responses calibrated?

- Akcigit et al.: elasticity $\varepsilon_{P,1-\tau}$ of **patents** to P90 net-of-tax rate
- Over the estimated range, the trade-off can disappear:
 $\varepsilon_{P,1-\tau} = 0.1 \rightarrow \mathcal{M}_g = 0.01$ vs. $\varepsilon_{P,1-\tau} = 0.5 \rightarrow \mathcal{M}_g = -0.19$
- Parameter estimated for **permanent** tax changes; here the experiment is **transitory**

Beyond the trade-off: recessions? government debt? R&D subsidy?

- ▶ The paper considers **government / redistribution shocks**:
 - Primarily, large expansions occur in ***recessions***, where monetary policy is already accommodative
 - More households are HtM, and aggregate demand is lower than “normal”
 - Possible experiments: government spending during TFP / demand (β) shocks?

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 - Taxes and transfers levied progressively on (heterogeneous) household income y_{it}
 - Spending shocks s_t^G , with government debt b_t^G adjusting to balance the budget
 - What if the government chose tax and debt policy ***actively*** (over time)?

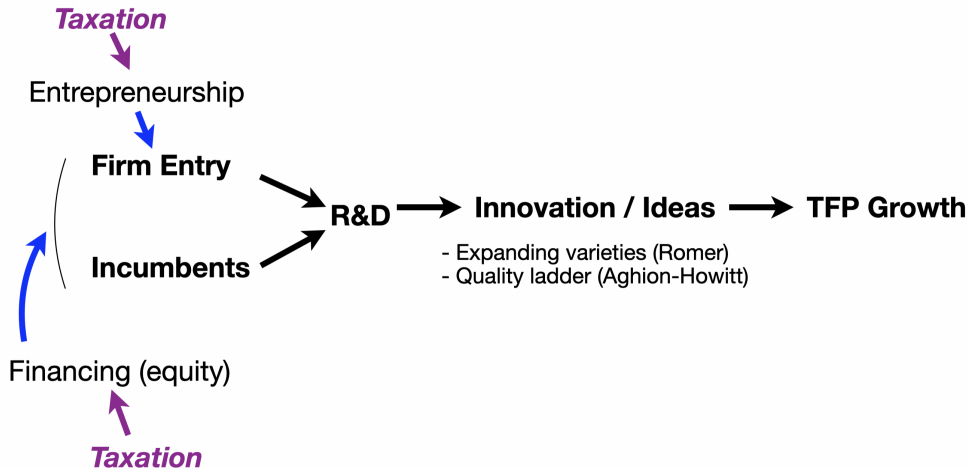
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- ▶ Could a fiscal expansion be coupled with an **R&D subsidy**?
 - Fiscal expansion is *indirect*:
tax on rich households $\rightarrow$ investment/R&D $x \rightarrow$ innovation A_{t+1}
 - R&D subsidy is *direct* and has pw

Models of innovation and growth



Models of innovation and growth



How taxation affects innovation

► Financing

- Taxation and valuation: McGrattan, Prescott (2005)
- Tax and asset pricing: Sialm
- Taxation and corporate behavior: Maydew, Shackelford, Zhang
- Fiscal policy, financial institutions and asset prices: Mainardi (2026)

► Taxation and innovation

- Optimal corporate taxation and R&D: Akcigit, Hanley, Stantcheva (2022)
- Taxation and the international mobility of inventors: Akcigit, Baslandze, Stantcheva (2016)

► Entrepreneurship

- On the nature of entrepreneurship: Bhandari, McGrattan, et al. (2026)
- What motivates entrepreneurs? Catherine (2022)
- Transformative and subsistence entrepreneurs: Akcigit, Alp, Pearce, Prato (2025)

► Taxation and entrepreneurship

- Entrepreneurial taxation with endogenous entry: Scheuer (2014)
- Capital gains taxes and entrepreneurship: Azevedo, Scheuer, Smetters, Yang (2025)
- Heterogeneous responses to capital gains taxation: Mainardi (2026)

Who Innovates? Transformative vs Subsistence Entrepreneurs (Akcigit et al.)

FIGURE 2: R&D WORKER AND ENTREPRENEUR BY IQ

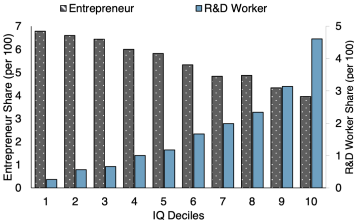


FIGURE 3: IQ AND ENTREPRENEURSHIP

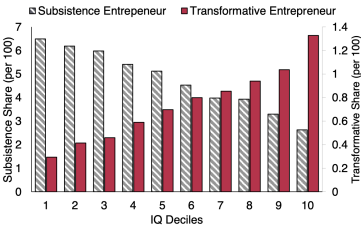
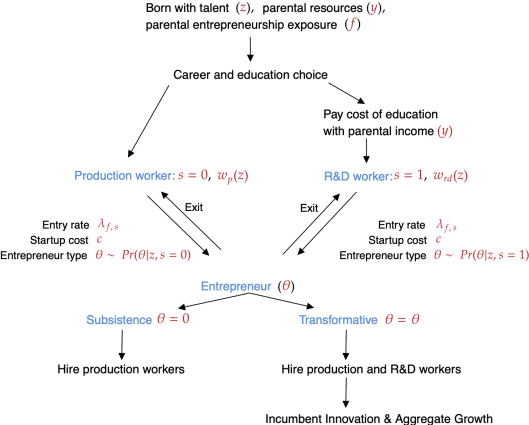
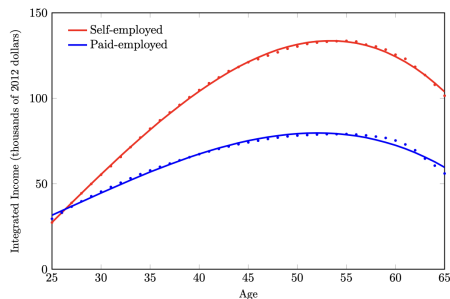


FIGURE 1: MODEL MAP



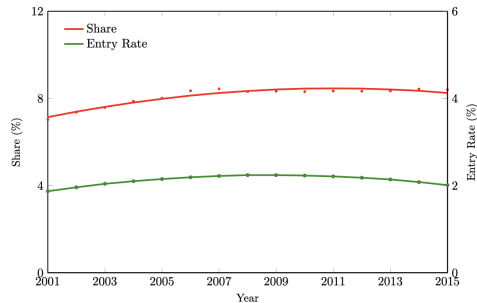
Who Innovates? On the Nature of Entrepreneurship (Bhandari et al.)

Figure 2: Estimated Income Profiles for Self- and Paid-Employed



Notes: The figure shows integrated income $Y_G(a)$ at each age a for two aggregated groups G : individuals in the tried-self-employment subgroup (or “self-employed”) and individuals in the primarily paid-employed subgroup (or “paid-employed”). Integrated income is defined in equation (9). See details of the group assignment in Section 4.2 and the estimation procedure in Section 4.1.

Figure 7: Self-Employment Shares and Entry Rates, 2000-2015



Notes: The figure shows two time series: (i) the share of the total population in IRS sample (C) of Table 1 categorized as self-employed using criteria (3) and (ii) the fraction of individuals whose status is paid- or non-employed in year $t-1$ and self-employed in year t . Age and time effects are extracted using the procedure outlined in Section 4.1.