

# Summer Paper: Optimal Taxation with Idiosyncratic Return Shocks

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Main Research Questions

Literature Review

Research Plan

## Main Question(s)

1. What is the optimal tax schedule in an economy in which agents face idiosyncratic income and return shocks?
  - 1.1 Is there a role for a tax on wealth?
2. Does this schedule change with the introduction of non-pecuniary motives for wealth accumulation? (time permitting)

# Return Shocks

- ▶ Heterogeneous-agent models in the vein of  $\text{GIM}$ ,  $\text{GIM}^*$  are unable to capture empirical distribution of wealth
- ▶ One augmentation: idiosyncratic shocks to rates of return
  - ▶  $\text{GIM}$ ,  $\text{GIM}^*$ : Stationary distribution of wealth in these models has a Pareto tail, as in the data
  - ▶  $\text{GIM}^*$ : evidence that these shocks can help match social mobility, another appealing feature

# Optimal Income Taxation

?

- ▶ Formal characterization of the tradeoff between efficiency and redistributive motives
- ▶ Problem: government sets optimal tax schedule to maximize social welfare function
- ▶ Solution must satisfy budget and individual rationality constraints
- ▶ Government can only observe income, not type, and thus this becomes a signalling problem
- ▶ Incentivize agents to reveal their types
- ▶ ?, ? : shape of optimal taxes depends on functional assumptions; case for progressive taxes exists

# Capital Taxation

- ▶ Great deal of attention paid to labor income taxation, and the progressivity thereof
- ▶ Classic result: optimal tax on capital is 0
- ▶ ? : cannot achieve desired progressivity with labor income tax alone
  - ▶ Trivial example: think of famous CEOs
- ▶ Motivation for considering capital income and wealth tax: how to tax wealthy individuals?
- ▶ Mirrleesian model gives us a framework to consider the tradeoffs.
  - ▶ Some examples: ?, ?, ?

# Capital Taxation

- ▶ In the classical ? model, individuals choose their effort level, given the tax schedule of the government
- ▶ Here, individuals will choose their savings rates and risk-taking behavior.
- ▶ The government's problem: would like to reward risk-taking and discipline, but cannot observe history of earnings shocks
  - ▶ Constraint is now to ensure that individuals are incentivized to put wealth towards productive purposes

# Model Features

- ▶ Agents with preferences over consumption and leisure
  - ▶ Allocate wealth and income between consumption and savings
- ▶ Idiosyncratic, persistent shocks to income and rates of return, calibrated to data
  - ▶ ? use PSID for income process
  - ▶ PSID wealth supplements can be used to study rates of return on various components of household wealth (albeit with limited scope)
  - ▶ ? demonstrates that there must be persistence to wealth accumulation process to get stationary distribution



# Model Features

- ▶ Distribution of ability, unobserved by the policymaker
  - ▶ ? and ? suggest that this distribution should be Pareto
- ▶ Government
  - ▶ Levies taxes based on observable characteristics (income, wealth)
  - ▶ Maximizes a social welfare function
  - ▶ Coordinates the tax schedule to satisfy individual rationality constraints and meet its budgetary requirements

# Potential Extension

## Non-pecuniary Motives

- ▶ Key question: why are savings rates high among wealthy individuals?
- ▶ Various studies have suggested motives for saving outside of precautionary motive
  - ▶ Bequest motive
  - ▶ Conspicuous consumption
  - ▶ ? : individuals form *aspirations*, threshold values of wealth. Crossing these gives additional utility.
  - ▶ These motives are relevant for optimal taxation insofar as they affect elasticities

## References I