Tax me if you can: Philanthropy, tax incentives and inefficiency

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Inequality today

Increasing consensus in Economics and related fields, as well as popular bibliography that **Inequality is on the rise,** especially at the top 1%.

- Rising trend, income inequality is even more pronounced (WID). Consensus about mega-rich concentrating an increasing amount of wealth (Smith, Zidar and Zwick (QJE, 2023))

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Traditional Solutions used: **Philanthropy, Redistrubution through taxation**

The two usually intersect: Tax incentives for individual donations, usually in the form of tax credits and deductions

Some facts

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TABLE 3

Estimated Tax Expenditures by Charitable Deductions

Fiscal years 2019–23 ($ billions)

Charitable deductions	2019	2020	2021	2022	2023
Educational institutions	$6.6	$6.8	$7.0	$7.3	$7.5
Health organizations	$3.6	$3.7	$3.9	$4.0	$4.1
Other	$32.9	$33.9	$35.0	$36.1	$37.2
Total	**$43.1**	**$44.4**	**$45.9**	**$47.4**	**$48.8**

Source: Joint Committee on Taxation (2019, 55–19).

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We think about it in the public good provision context.

Literature on the the potential downsides of philanthropy

Philanthropy is well-accepted by society (CAF, 2014) but open question about motives and impact on democracy (Reich, 2018)

- Motive: Altruist or Selfish?
  1. Tax avoidance (Andreoni and Smith, 2021)
  2. Ego: political use (Saunders-Hastings, 2018), altruism or prestige (Harbaugh, 1998)
- Democratic weakening:
  1. No accountability of their actions
  2. Concentrates power (Saez and Zucman, 2020)
  3. "Competes" in the provision of public goods (crowding out?)

Our model of Philanthropy with tax credits

- **N** individuals, each i endowed with wealth $\omega_i \geq \mathbf{0}$. Total wealth: $\mathbf{\Omega}$

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Timing: At $t = 1$, individuals vote on their preferred level of taxation. At $t = 2$, Bill decides whether to become a philanthropist and his contribution towards his own public good, $\tilde{g}_b$.

Bill's maximization problem at t=2

No Philanthropy:

$$U_b(\tau, F, \omega_b, \Omega, \pi = 0) = ln(g_s) + c_b = ln(\tau\Omega - F) + (1 - \tau)\omega_b$$

Philanthropy:

$$\max_{g_b, c_b} U_b(c_b, g_b, g_s, \tau, \omega_b, \Omega, F, \beta, \pi = 1) = ln(g_s + (1 + \beta)g_b) + c_b$$
$$\text{s.t. } g_b = \tilde{g_b} - F > 0$$
$$c_b = \omega_b - \tilde{g_b} - max\{0, \tau\omega_b - \tilde{g_b}\} \geq 0$$

Optimality conditions:

- When $\pi = 1$, $\tilde{g_b}^* = \tau\omega_b$
- $\pi = 1$ if $\tau > \frac{F}{\omega_b}\frac{\beta+1}{\beta} \equiv \overline{\tau}$

Voter i's choice at t=1

Conditional on Bill's choice of π, i's preferences are **single peaked**.

$$\Rightarrow \max_{\tau_i} U_i(\tau_i \mid \pi) = ln\left(\tau_i\Omega - F(\pi+1)\right) + (1-\tau_i)\omega_i \text{ s.t. } \tau_i \in [0,1]$$

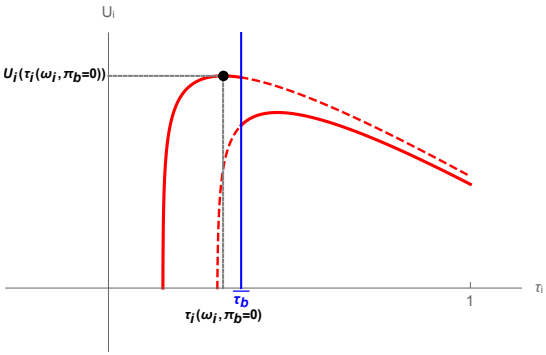
Her ideal level of tax is given by

$$\tau_i^*(\pi) = \frac{1}{\omega_i} + \frac{(1+\pi)F}{\Omega}$$

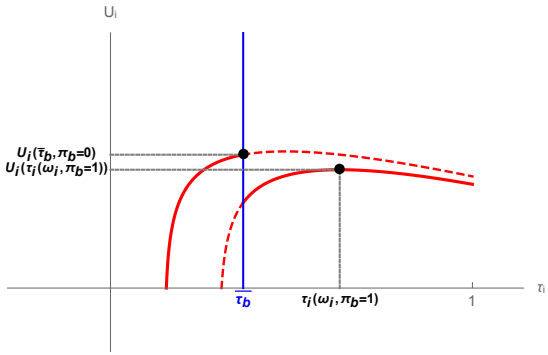
However, unconditional preferences are **not necessarily single peaked**!
If we do not condition on Bill's choice, individual i's utility is given by:

$$U_i(\tau_i) = \begin{cases} ln\left(\tau_i\Omega - F\right) + (1-\tau_i)\omega_i & \text{if } \tau_i \leq \overline{\tau} \\ ln\left(\tau_i\Omega - 2F\right) + (1-\tau_i)\omega_i & \text{if } \tau_i > \overline{\tau} \end{cases}$$

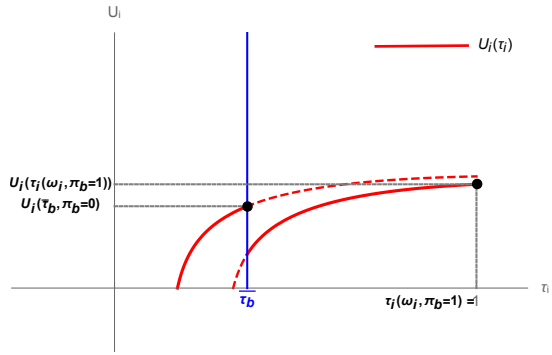
Wealth and i's ideal tax rate



Rich individuals



Intermediate wealth



Poor individuals

Proposition

Individual i's optimal tax rate, $\tau_i^*(\omega_i)$ is given by:

$$\tau_i^*(\omega_i) = \begin{cases} \tau_i(\omega_i, \pi = 0) = \frac{1}{\omega_i} + \frac{F}{\Omega} & \text{if } \omega_i > \overline{\omega} \\ \overline{\tau} & \text{if } \underline{\omega} < \omega_i \leq \overline{\omega} \\ \tau_i(\omega_i, \pi = 1) = \frac{1}{\omega_i} + \frac{2F}{\Omega} & \text{if } \omega_i \leq \underline{\omega} \end{cases}$$

Majority Voting and the MVT

Proposition

We can restrict the space of alternatives to $[0, \overline{\tau}] \cup [\tau(\underline{\omega}, \pi = 1)), 1]$, *where preferences are single peaked.*

First we show that the region $(\overline{\tau}, \tau(\underline{\omega}, \pi = 1)$ is dominated for every i.

Then we show that in the remaining subset of τ every individual utility has a unique local maximum.

Corollary

The median voter theorem holds and thus majority voting will elect τ^* *that is equal to the median voter's preferred tax level* τ^*_{med}.

Social Welfare

Proposition

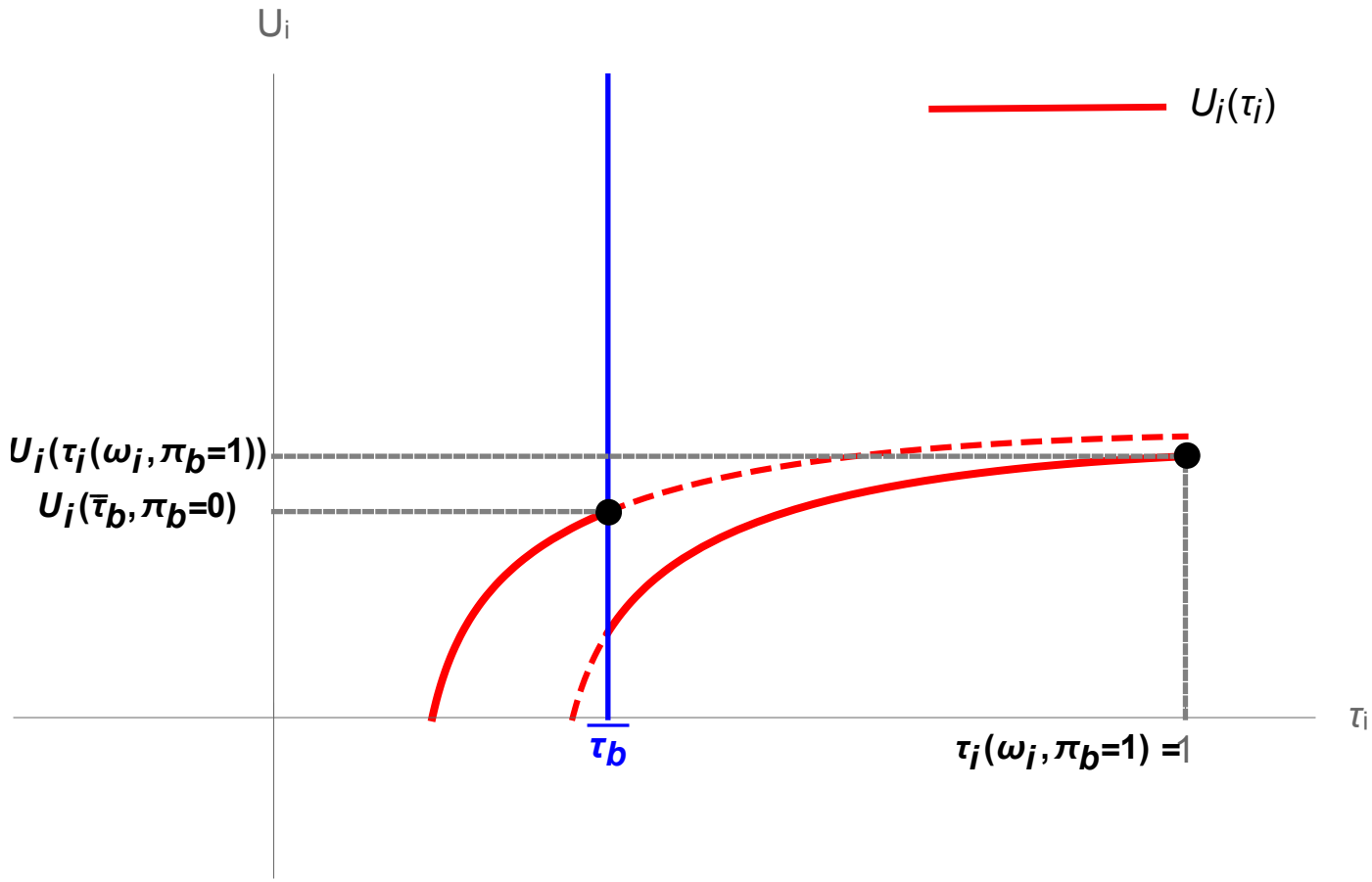
The median voter, independently of her level of wealth, is weakly better off without philanthropy.

- trivial proof
- rich mv not affected by philanthropy, poor and intermediate income mv hurt.

Welfare aggregation **not trivial** here: β can be arbitrarily large and drive results using the pure utilitarian approach.

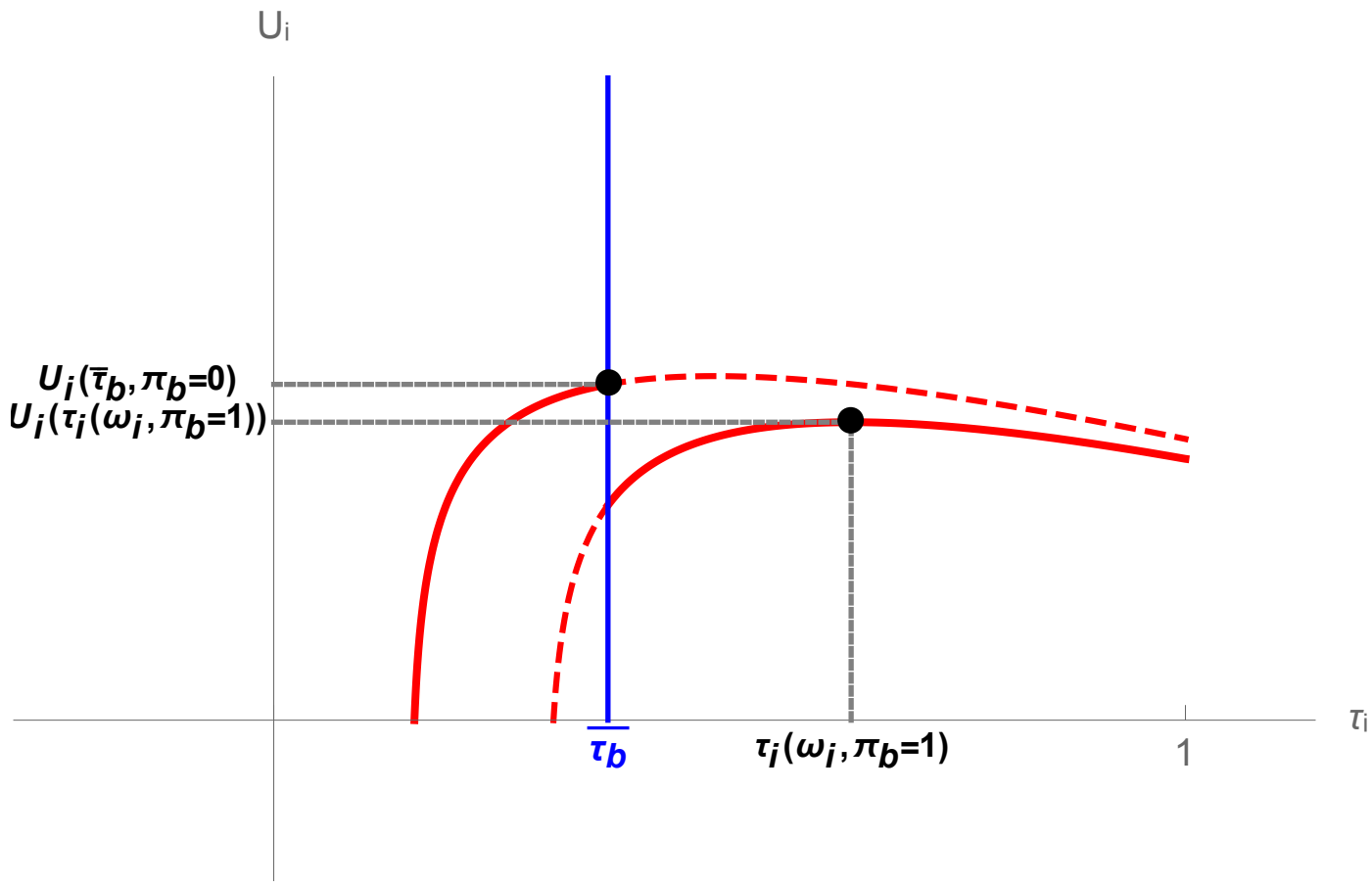
- Thus we treat Bill as **just another citizen** $(\beta = 0)$.
- Since philanthropy takes place only when $\omega < \underline{\omega}$, the two approaches yield the **same results** when $\omega \geq \underline{\omega}$.

Social Welfare: Poor median voter



Higher tax rate, same public good, less welfare, less inequality.

Social Welfare: Intermediate wealth median voter



Lower tax rate and public good, welfare ambiguous, rich always happier at the cost of poor.

Extensions

- generic strictly convex production function and β not restricted
- many philanthropists
- extreme inequality
- ... and currently working on tax deductions

Conclusions

When rich individuals receive tax incentives to build their own public goods, this can lead to distortions in taxation and inefficiency. Even when social welfare is increased by the philanthropist, it might be at the expense of poorer individuals.

Thank you!