

# **The taxation of couples**

**Felix Bierbrauer, U of Cologne**

**Pierre Boyer, École Polytechnique Paris**

**Andreas Peichl, CESifo and LMU Munich**

**Daniel Weishaar, CESifo and LMU Munich**

May 2022

# Motivation I

- There is already a rich literature on the taxation of couples.
- Broad summary

*Empirically:* income splitting reduces earning incentives for secondary earners.

*Normatively:* Good idea to have different marginal tax rates for primary and secondary earners because their behavioral responses differ.

- Thus, tax systems should be reformed so that marginal tax rates for secondary earners are reduced. This does not seem to be controversial.

**So: why another paper on the topic?**

# Motivation II

## Some open questions:

- ① Can political economy forces explain why income splitting is so persistent?
- ② Why exactly is it a good idea to lower marginal tax rates for secondary earners?
  - A. Because this increases the welfare of secondary earners?
  - B. Because this increases the welfare of everybody?
  - C. Because tax rates are too high to begin with?  
For secondary earners? For everybody?

We develop tools that can be used to get at these questions.

We also provide tentative answers from an application to US tax policy.

# What we do I

- Consider a status quo tax system with income splitting for couples
- Use perturbation method and develop sufficient statistics to identify
  - Pareto-improving directions for reform
  - Majority-preferred directions
  - Welfare-improving directions for the population at large
  - Welfare-improving directions for secondary earners and women
- Distinguish
  - Class 1 reforms:** marginal tax rates stay the same for primary and secondary earners
  - Class 2 reforms:** towards individual taxation  $\Rightarrow$  marginal tax rates up for primary earners or down for secondary earners

# What we do II

## Why distinguish Class 1 and Class 2 reforms?

An example:

- When there is scope for Pareto-improving tax cuts in both classes, cannot say that lowering marginal tax rates for secondary earners is necessary to improve the efficiency of the tax system. Then it is just one reform option among many.
- When there is scope for Pareto-improving tax cuts in the second class, but not in the first, lowering marginal tax rates for secondary earners is necessary to improve the efficiency of the tax system.

In the latter case can conclude more forcefully that the tax treatment of secondary earners is a key inefficiency in the tax system.

# Application to US tax policy since WWII

- “All” reforms of the US federal income tax in class 1.
- Use sufficient statistics from a model with household bargaining, quasi-linear in consumption preferences, and household consumption as a public good.
- Analyze dynamics of political support for revenue-neutral class 2 reforms
  - Find that support increased over time
  - Under assumptions, threshold for majority support only passed recently
- Analyze welfare implications for revenue-neutral class 2 reforms
  - Negative for Rawlsian welfare
  - Ambiguous for unweighed utilitarian welfare
  - Positive for feminist welfare and for Rawlsian-feminist welfare
- Under assumptions, can identify periods in which
  - marginal tax rates for “the rich” were too high across the board,
  - and others were they were too high only for “rich” secondary earners.

# Related literatures I

- 1 Optimal taxation of couples
  - Boskin and Sheshinski (1983); Schroyen (2003); Brett (2007); Kleven et al. (2009); Immervoll et al. (2011); Cremer et al. (2012, 2015); Gayle and Shephard (2019); Malkov (2022)
  - Complementary. Also gives a sense of “good” directions for reform.
  - Perturbation method: can look at reform justifications beyond getting closer to some welfare-max: Pareto-efficiency, political feasibility
- 2 Empirical literature on behavioral responses to taxation by secondary earners
  - We are using its results when applying our sufficient stats
  - Gustafsson (1992); Eissa and Hoynes (2004); LaLumia (2008)

# Related literatures II

- ③ Perturbation method and sufficient statistics
  - References: Piketty (1997); Saez (2001); Golosov et al. (2014); Jacquet and Lehmann (2021); Spiritus et al. (2022)
  - Used to characterize optimal taxes for couples by Kleven et al. (2009)
  - Here: used to identify reform options starting from the status quo
- ④ Political economy of taxation ....contributions multi-faceted...you name them
  - So far, haven't found anything on couples' taxation

# Outlook

- ① Introduction
- ② Sufficient stats to evaluate Class 1 reforms
- ③ Sufficient stats to evaluate Class 2 reforms
- ④ Application to US tax policy
- ⑤ Concluding remarks

# Singles and couples I

- We consider an economy that consists of single and couples. Unit mass of tax units, shares of singles and married couples denoted by  $\nu_s$  and  $\nu_m = 1 - \nu_s$ .
- Singles' preferences are represented by  $u_s : (c_s, y_s, \theta_s) \mapsto u_s(c_s, y_s, \theta_s)$ .
- A single chooses consumption  $c_s$  and earnings  $y_s$  to maximize utility s.t.

$$c_s = b_s + y_s - T_s(y_s) ,$$

where  $b_s$  is the gvt transfer to singles with no income.

# Singles and couples II

- A married couple has two individuals, 1 and 2. Joint earnings  $y_m = y_1 + y_2$ .
- Given  $y_1$  and  $y_2$ , spouse  $i = 1, 2$  realizes  $u_i(\alpha_i(c_m, y_1, y_2, \cdot), y_i, \theta_i)$ .

Couples' disposable income  $c_m = b_m + y_m - T_m(y_m)$ .

Consumption sub-utility of  $i$ ,  $\alpha_i : (c_m, y_1, y_2, \cdot) \mapsto \alpha_i(c_m, y_1, y_2, \cdot)$ .

Increasing in its first argument. Various microfoundations.

- Optimization Problem/ Household bargaining: Choose  $y_1$  and  $y_2$  to max

$$\gamma_1 u_1(\alpha_1(c_m, y_1, y_2, \cdot), y_1, \theta_1) + \gamma_2 u_2(\alpha_2(c_m, y_1, y_2, \cdot), y_2, \theta_2) ,$$

s.t.  $c_m = b_m + y_m - T_m(y_m)$ .

# Class 1 tax reforms I

- Let there be a status quo tax system  $T_0 = (T_{s0}, T_{m0})$ .
- A class 1 tax reform replaces  $T_0$  by new tax functions  $(T_{s1}, T_{m1})$  so that

$$T_{s1}(y_s) = T_{s0}(y_s) + \tau_s h_s(y_s) ,$$

and

$$T_{m1}(y_m) = T_{m0}(y_m) + \tau_m h_m(y_m) ,$$

where

- $\tau_s / \tau_m$  are scalars – interpreted as measures of reform intensity
  - $h_s / h_m$  are continuous functions – interpreted as reform directions
- **Defining feature of a class 1 reform:**  
 $y_m$  is the tax base for couples, both before and after the reform.

# Class 1 tax reforms II

Preferences over “small” tax reforms:

- $V_s(\tau, h, \rho_s, \theta_s) :=$  indirect utility for a single with type  $\theta_s$ .
- $V_i(\tau, h, \rho_s, \theta_m, \gamma_m) :=$  indirect utility for spouse  $i$  in a couple with  $\theta_m = (\theta_1, \theta_2)$  and bargaining weights  $\gamma_m = (\gamma_1, \gamma_2)$ .
- Assume wlog that extra revenue  $R(\tau, h)$  is rebated lump sum. Fraction  $\rho_s/\rho_m$  goes to singles/ couples.

Lemma 1 (Milgrom and Segal, 2002)

$$\frac{\partial}{\partial \tau} V_s(0, h, \rho_s, \theta_s) = u_{sc}^0(\theta_s) \left[ \rho_s R_1^0(h) - h_s(y_s) \right], \quad (1)$$

and

$$\frac{\partial}{\partial \tau} V_i(0, h, \rho_m, \theta_m, \gamma_m) = u_{ic}^0(\theta_m, \gamma_m) \alpha_{i1}^0(\theta_m, \gamma_m) \left[ \rho_m R_1^0(h) - h_m(y_m) \right]. \quad (2)$$

where  $R_1^0(h) := \frac{\partial}{\partial \tau} R(0, h)$  and  $\rho_s + \rho_m = 1$ .

# Class 1 tax reforms III

## On Lemma 1:

- “Envelope theorems for arbitrary choice sets”.
- Whether a tax unit benefits is determined by how the relevant change in tax revenue compares to the change of the tax burden.
- Note: since  $\alpha_{i1}^0(\theta_m, \gamma_m) > 0$ , the spouses in a couple have aligned preferences over tax reforms.
- This extends to class 2 reforms.

⇒ welfare tradeoffs can be

- between singles and couples
- between different types of couples (e.g. strong vs weak secondary earner)

They cannot be between primary and secondary earners who belong to the same couple: There is a private domain that is out of the reach of tax policy.

# Pareto-improvements in Class 1 I

- Here: focus on the question whether  $T_{m0}$  admits a Pareto-improving reform.
- In the manuscript,
  - also look at the single's schedule with and w/o the assumption that there is a fixed splitting function governing the relation between  $T_{m0}$  and  $T_{s0}$ .
  - also look into political feasibility and implications for social welfare
- Relevant sufficient stats: the function  $\mathcal{R}_m : y_m \mapsto \mathcal{R}_m(y_m)$ , giving the extra revenue from an infinitesimal increase of the marginal tax rate for joint earnings in an infinitesimally small neighborhood of  $y_m$ .
- Below, will show what this looks like with quasi-linear in consumption preferences and household consumption as a public good.

Basically: Decomposition into hazard rate/ elasticities/ status quo marginal tax rates – familiar to many public finance scholars.

# Pareto-improvements in Class 1 II

## Lemma 2 (Bierbrauer, Boyer, Hansen, 2021 )

The schedule  $T_{m0}$  admits a Pareto-improving reform direction if and only if the following conditions are all satisfied:

- The function  $\mathcal{R}_m$  is bounded from below by 0.
- The function  $\mathcal{R}_m$  is bounded from above by 1.
- The function  $\mathcal{R}_m$  is non-increasing.

Interpretation:

- $\mathcal{R}_m$  bounded below by 0  $\Leftrightarrow$  Marginal tax rates are not over the Laffer bound.
- $\mathcal{R}_m$  bounded above by 1  $\Leftrightarrow$  Raising marginal tax rates does not create so much revenue that everyone can be compensated.
- $\mathcal{R}_m$  non-increasing  $\Leftrightarrow$  No self-financing tax cut with a phase-in range with lower *MTRs* and phase-out range with higher *MTRs*.

# Example: quasi-linear preferences, hh consumption as a public good, only intensive margin responses I

Let

$$u_i(c_m, y_i, \theta_i) = c_m - k_i(y_i, \theta_i)$$

where  $k_i$  is an effort cost function and

$$c_m = b_m + y_1 + y_2 - T_m(y_1 + y_2)$$

With bargaining weights of  $\gamma_1$  and  $\gamma_2$ , the relevant FOCs are

$$1 - T'_m(y_1 + y_2) = \gamma_1 k_{1,y}(y_1, \theta_{m1}) \quad (3)$$

and

$$1 - T'_m(y_1 + y_2) = \gamma_2 k_{2,y}(y_2, \theta_{m2}) , \quad (4)$$

## Example: quasi-linear preferences, hh consumption as a public good, only intensive margin responses II

### Lemma 3 (Comparative statics)

Let  $T_m$  be continuous and convex. Then

- (i) The function  $y_1^*$  is non-decreasing in  $\theta_1$ , and non-increasing in  $\theta_2$  and  $\gamma_1$ .
- (ii) The function  $y_2^*$  is non-decreasing in  $\theta_2$  and  $\gamma_1$ , and non-increasing in  $\theta_1$ .
- (iii) The function  $y_m^* = y_1^* + y_2^*$  is non-decreasing in both  $\theta_1$  and  $\theta_2$ .

Thus, primary earnings crowd out secondary earnings and vice versa.

When we interpret “empowerment” in the couple as an increase of bargaining weights, it tends to reduce earnings. May seem counterintuitive.

# Example: quasi-linear preferences, hh consumption as a public good, only intensive margin responses III

## Proposition 1

Given a status quo tax system for couples  $T_{m0}$ , we have

$$\frac{1}{\nu_m} \mathcal{R}_m(y_m) = - \frac{T'_{m0}(y_m)}{1 - T'_{m0}(y_m)} y_m f_m^y(y_m) \bar{\mathcal{E}}_m(y_m) + 1 - F_m^y(y_m), \quad (5)$$

where  $F_m^y$  is the *cdf* and  $f_m^y$  the density of the earnings distribution of married couples and

$$\bar{\mathcal{E}}_m(y_m) = \mathbf{E}_{(\theta_m, \gamma_m)} [e(\theta_m, \gamma_m) \mid y_m^0(\theta_m, \gamma_m) = y_m]$$

is a measure of the behavioral responses to a one-bracket tax reform affecting couples with a joint income in a close vicinity of  $y_m$ .

## Example: quasi-linear preferences, hh consumption as a public good, only intensive margin responses IV

To interpret  $\bar{\mathcal{E}}_m(y_m)$  let

$$k_1(y_1, \theta_1) = \frac{1}{1 + \frac{1}{\varepsilon_1}} \left( \frac{y_1}{\theta_1} \right)^{1 + \frac{1}{\varepsilon_1}} \quad (6)$$

and

$$k_2(y_2, \theta_2) = \frac{1}{1 + \frac{1}{\varepsilon_2}} \left( \frac{y_2}{\theta_2} \right)^{1 + \frac{1}{\varepsilon_2}} \quad (7)$$

Thus, spouses may differ in productive abilities and Frisch elasticities.

# Example: quasi-linear preferences, hh consumption as a public good, only intensive margin responses $V$

## Lemma 4

$$\begin{aligned} e_m(\cdot) &:= \frac{y_{1,\tau_m}^* + y_{2,\tau_m}^*}{y_m^0} (1 - T'(y_1^0 + y_2^0)) \\ &= -(\varepsilon_1 \pi_1^0 + \varepsilon_2 \pi_2^0) \left( 1 + \frac{T''(y_1^0 + y_2^0)}{1 - T'(y_1^0 + y_2^0)} (\varepsilon_1 y_1^0 + \varepsilon_2 y_2^0) \right)^{-1}, \end{aligned}$$

where

$$\pi_1^0 = \frac{y_1^0}{y_m^0} \quad \text{and} \quad \pi_2^0 = \frac{y_2^0}{y_m^0}.$$

# Example: quasi-linear preferences, hh consumption as a public good, only intensive margin responses VI

In the paper, will also have extensive margin effects.

Tax policy affects the fractions of

- Dual earner couples
- Single earner couples
- Couples with no earnings

(Not yet integrated into the empirical analysis.)

# Example: quasi-linear preferences, hh consumption as a public good, only intensive margin responses VII

$$\frac{1}{\nu_m} \mathcal{R}_m(y) = \mathcal{X}_{sec}(y_m) + \mathcal{I}_{sec}(y) + \mathcal{X}_{dec}(y_m) + \mathcal{I}_{dec}(y)$$

$$\mathcal{I}_{sec}(y) = -\frac{T'_{m0}(y)}{1 - T'_{m0}(y)} y m_{sec}(y) \bar{\mathcal{E}}_{sec}(y) + M_{sec}^+(y)$$

$$\mathcal{X}_{sec}(y) = -\int_y^\infty \frac{T_{m0}(y')}{y' - T_{m0}(y')} \bar{\pi}_{sec}(y') m_{sec}^y(y') dy'$$

$$\mathcal{I}_{dec}(y) = -\frac{T'_{m0}(y)}{1 - T'_{m0}(y)} y m_{dec}(y) \bar{\mathcal{E}}_{dec}(y) + M_{dec}^+(y)$$

$$\mathcal{X}_{dec}(y) = -\int_y^\infty \frac{T_{m0}(y')}{y' - T_{m0}(y')} \bar{\pi}_{dec}(y') m_{dec}^y(y') dy'$$

- $\pi_{sec}$  : captures a *decrease* in SECs that stop working and an *increase* in SECs coming from DEC's whose secondary earner stops working.
- $\pi_{dec}$  : captures *decrease* in DEC's whose spouses both stop working and a *decrease* in DEC's whose secondary earner stops working.

## Class 2: Detecting inefficiencies in the tax treatment of secondary earners I

- Start from a status quo schedule  $T_{m0}$  so that  $y_m = y_1 + y_2$  is the tax base.
- Consider a reform direction that involves a change of the marginal tax rate only for secondary earners.
- Relevant sufficient stat: the function  $\mathcal{R}_2 : y_2 \mapsto \mathcal{R}_2(y_2)$ , giving the extra revenue from an infinitesimal increase of the marginal tax rate for secondary earners in an infinitesimally small neighborhood of  $y_2$ .
- Again, there is a Pareto-improving reform direction iff one of the following conditions is violated
  - The function  $\mathcal{R}_2$  is bounded from below by 0.
  - The function  $\mathcal{R}_2$  is bounded from above by 1.
  - The function  $\mathcal{R}_2$  is non-increasing.

## Class 2: Detecting inefficiencies in the tax treatment of secondary earners II

### Proposition 2, Example revisited

$$\mathcal{R}_2(y_2) = -y_2 f_2^y(y_2) \bar{\mathcal{E}}_2(y_2) + 1 - F_2^y(y_2), \quad (8)$$

where  $F_2^y$  is the *cdf* and  $f_2^y$  the density of the secondary earnings in married couples and

$$\bar{\mathcal{E}}_2(y_2) = -\mathbf{E}_{(\theta_m, \gamma_m)} \left[ \frac{T'_m(y_m^0(\theta_m, \gamma_m))}{1 - T'_m(y_m^0(\theta_m, \gamma_m))} e_2(\theta_m, \gamma_m) \mid y_2^0(\theta_m, \gamma_m) = y_2 \right]$$

where  $e_2(\theta_m, \gamma_m)$  is the elasticity of the couple's joint income with respect to the marginal tax rate faced by the secondary earner.

Can proceed analogously to detect inefficiencies in the tax treatment of primary earners.

## Class 2: Detecting inefficiencies in the tax treatment of secondary earners III

### Lemma 5

For iso-elastic effort cost functions,

$$e_2(\cdot) = -\varepsilon_2 \left( 1 + \frac{T''(y_1^0 + y_2^0)}{1 - T'(y_1^0 + y_2^0)} (\varepsilon_1 y_1^0 + \varepsilon_2 y_2^0) \right)^{-1} .$$

## Class 2: Detecting inefficiencies in the tax treatment of secondary earners IV

Intersecting the conditions:

- Suppose that  $\mathcal{R}_m$  satisfies all efficiency conditions
- Suppose that there is a range of secondary earnings so that  $\mathcal{R}_2(y_2) < 0$ .

Then:

- No Pareto-improvement in class 1.
- *MTRs* for secondary earners are inefficiently high.  
⇒ Pareto improvement in class 2.

# Reforms towards individual taxation I

In the following, reform direction so that

- *MTRs* of all primary earners up
- *MTRs* of all secondary earners down
- In a revenue neutral way

Study welfare implications and political feasibility.

# Reforms towards individual taxation II

Formally:

$$T_{m1}(y_1, y_2) = T_{m0}(y_1 + y_2) + \tau^j h^j(y_1, y_2),$$

for

$$\begin{aligned} h^j(y_1, y_2) &= \tau_1 h_1(y_1) + \tau_2 h_2(y_2), \\ &= \tau_1 y_1 + \tau_2 y_2. \end{aligned}$$

## Proposition 3: Revenue neutrality

The Gâteaux differential of tax revenue in direction  $h^j$  is zero if

$$\frac{\tau^1}{\tau^2} = - \frac{\int_{\mathbb{R}_+} \mathcal{R}^2(y_2) dy_2}{\int_{\mathbb{R}_+} \mathcal{R}^1(y_1) dy_1}. \quad (9)$$

# Political feasibility of revenue-neutral reforms towards individual taxation

- By Lemma 1, a couple is made better off if

$$\tau_1 h_1(y_1^0) + \tau_2 h_2(y_2^0) = \tau_1 y_1^0 + \tau_2 y_2^0 < 0.$$

- With revenue neutrality this becomes

$$y_1^0 < \frac{\int_{\mathbb{R}_+} \mathcal{R}^1(y_1) dy_1}{\int_{\mathbb{R}_+} \mathcal{R}^2(y_2) dy_2} y_2^0.$$

- The line

$$y_1^0 = \frac{\int_{\mathbb{R}_+} \mathcal{R}^1(y_1) dy_1}{\int_{\mathbb{R}_+} \mathcal{R}^2(y_2) dy_2} y_2^0.$$

separates winning and losing couples.

- It shifts with the behavioral responses to taxation and the mechanical revenue effects as measured by  $\mathcal{R}^1 : y_1 \mapsto \mathcal{R}^1(y_1)$  and  $\mathcal{R}^2 : y_2 \mapsto \mathcal{R}^2(y_2)$ .

# Welfare implications of revenue-neutral reforms towards individual taxation I

Welfare weights for couples:

$$\mathbf{g}_m(\gamma_m, \theta_m) = g_1(\theta_m, \gamma_m) u_{1c}^0(\theta_m, \gamma_m) \alpha_{1c}^0(\theta_m, \gamma_m) + g_2(\theta_m, \gamma_m) u_{2c}^0(\theta_m, \gamma_m) \alpha_{2c}^0(\theta_m, \gamma_m) .$$

In the example, simply  $\mathbf{g}_m(\gamma_m, \theta_m) = g_1(\theta_m, \gamma_m) + g_2(\theta_m, \gamma_m)$ .

## Proposition 4

The Gâteaux differential of an additive social welfare function in direction  $h^j$  is positive if

$$\mathbf{E}_{(\theta_m, \gamma_m)} [\mathbf{g}_m(\gamma_m, \theta_m) y_1^0(\gamma_m, \theta_m)] < \left( \frac{\int_{\mathbb{R}_+} \mathcal{R}^1(y_1) dy_1}{\int_{\mathbb{R}_+} \mathcal{R}^2(y_2) dy_2} \right) \mathbf{E}_{(\theta_m, \gamma_m)} [\mathbf{g}_m(\gamma_m, \theta_m) y_2^0(\gamma_m, \theta_m)] .$$

# Welfare implications of revenue-neutral reforms towards individual taxation II

In the application look at welfare implications for

- “The poor” – Rawlsian SWF – weights concentrated on couples with low  $y_m$

Weights only for couples in the bottom five percent, equal weights

- “Secondary earners” – weights concentrated on couples with positive  $y_2$

Weights increasing in income share of secondary earners

- “Feminist” – concentrated on couples s.t. women have positive earnings

Weights increasing in income share of women.

- “Rawlsian-Feminist” – poor couples s.t. women have positive earnings

Weights in the bottom five percent, increasing in share of women.

# Outline

- 1 Introduction
- 2 Class 1 reforms
- 3 Example
- 4 Class 2 reforms
- 5 Application**
  - Sources
  - Efficiency
  - Political Economy
  - Welfare
- 6 Conclusion
- 7 Back up

# Application: What do we look at?

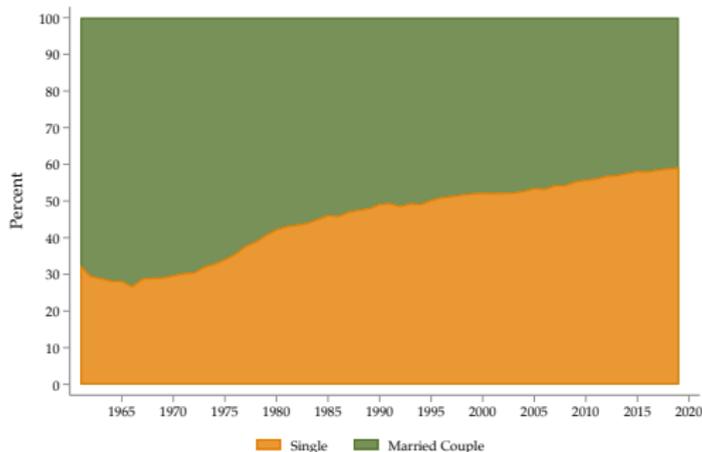
Sources:

- Reforms of the federal income tax in the US since the 1960s.
- Current Population Survey (CPS) and NBER TAXSIM microsimulation model.

“Only” Class 1 Tax reforms:

- One reform with a “secondary earner deduction.”
- Otherwise separate tax schedules for singles and couples.
- Document the dynamics of marriage penalties and bonuses.

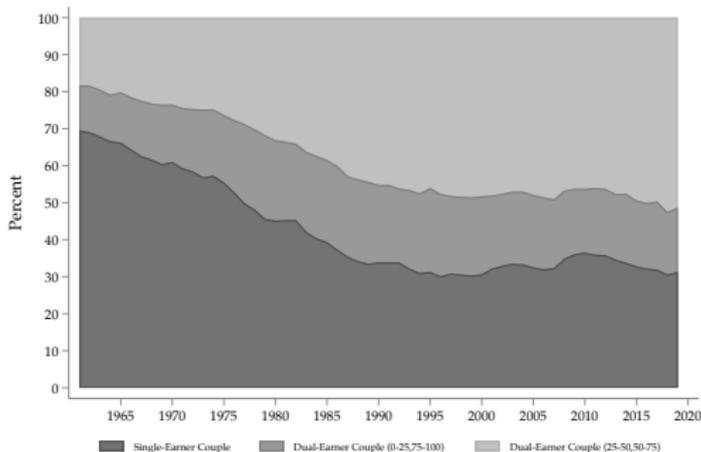
# Changes of Tax Unit Types



Source: Own calculations based on CPS.

The share of single tax units almost doubled from around 30 percent in 1961 to around 60 percent in 2019.

# Changes of Within-Household Income Distribution



Source: Own calculations based on CPS.

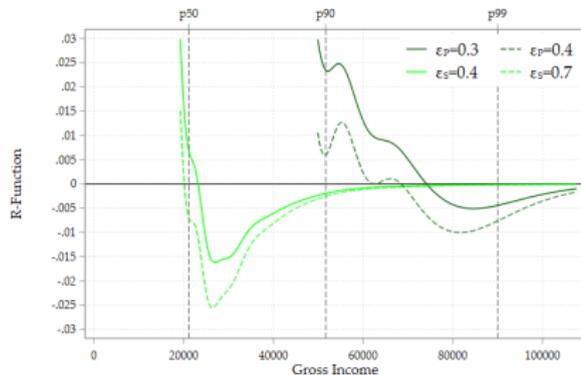
- In 1961, around 70 percent of couples had only one earner.
- There was a strong expansion of dual-earner couples between the 1960s and the 2000s.

# Outline

- 1 Introduction
- 2 Class 1 reforms
- 3 Example
- 4 Class 2 reforms
- 5 Application**
  - Sources
  - Efficiency**
  - Political Economy
  - Welfare
- 6 Conclusion
- 7 Back up

# Lowering rates for secondary earners in the mid 80's

Figure:  $\mathcal{R}$ -Function, Primary and Secondary Earners, 1985



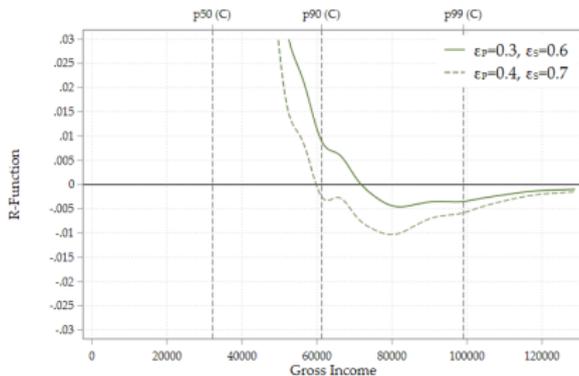
Source: own calculations based on CPS and NBER TAXSIM.

- Suggests in 1985, lower *MTRs* of secondary earners would have been Pareto-improving.
- Seems there was scope for Pareto-improvements in Class 2.

⇒ Was it necessary to abandon joint taxation to realize efficiency gains?

# Lowering rates for couples in the mid 80s

Figure:  $\mathcal{R}$ -Function of Couples, 1985

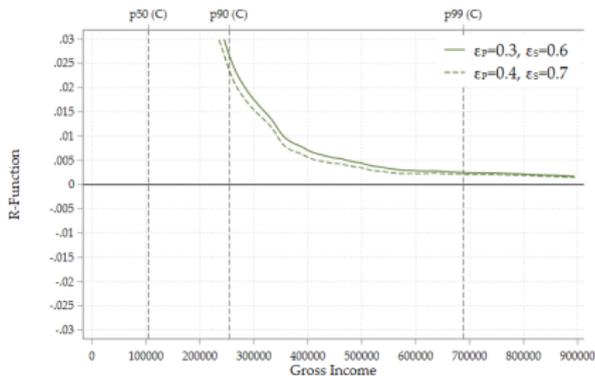


Source: own calculations based on CPS and NBER TAXSIM.

- Seems there was scope for Pareto-improvements also in Class 1.

# Lowering rates for couples in 2019

Figure:  $\mathcal{R}$ -Function of Couples, 2019



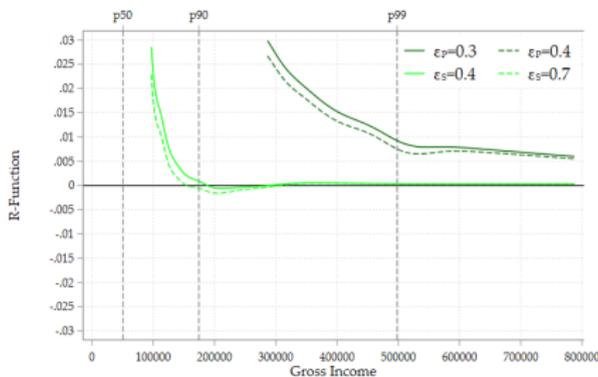
Source: own calculations based on CPS and NBER TAXSIM.

- Seems there no longer is scope for P.-improvements in Class 1.

⇒ How about class 2?

# Lowering rates for secondary earners in 2019

Figure:  $\mathcal{R}$ -Function, Primary and Secondary Earners, 2019



Source: own calculations based on CPS and NBER TAXSIM.

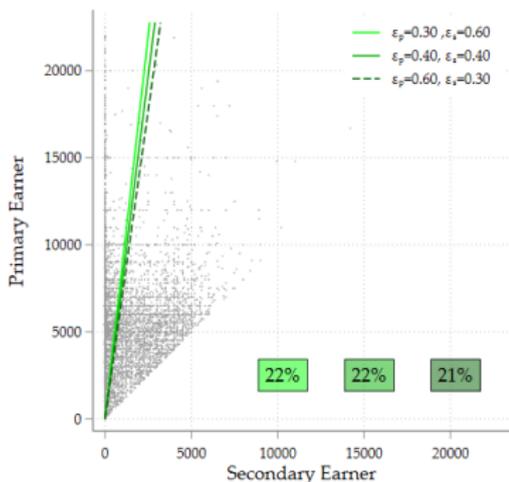
- There still seems to be some scope for Pareto improvements
- Requires to lower *MTRs* of “rich” secondary earners

# Outline

- 1 Introduction
- 2 Class 1 reforms
- 3 Example
- 4 Class 2 reforms
- 5 Application**
  - Sources
  - Efficiency
  - Political Economy**
  - Welfare
- 6 Conclusion
- 7 Back up

# Towards Individual Taxation: Political Economy

Figure: Political Support, 1961

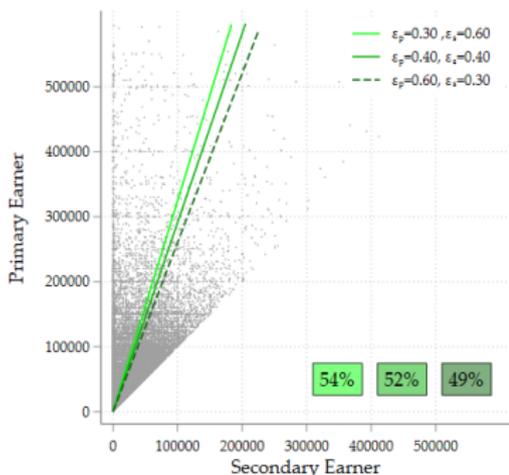


Source: own calculations based on CPS and NBER TAXSIM.

- All winners (losers) from reform lie below (above) the 45 degree line.
- In 1961, reform towards individual taxation was not politically feasible.
- Larger elasticity differential tends to increase political support.

# Towards Individual Taxation – Political Economy

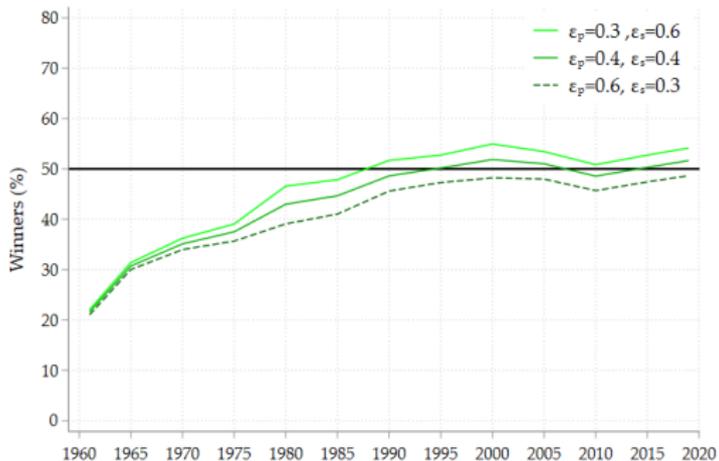
Figure: Political Support, 2019



- In 2019, reform towards individual taxation near majority support.

Source: own calculations based on CPS and NBER TAXSIM.

# Towards Individual Taxation — Support over Time



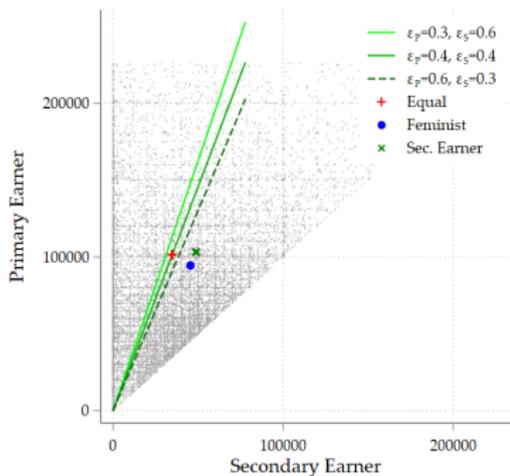
Source: own calculations based on CPS and NBER TAXSIM.

# Outline

- 1 Introduction
- 2 Class 1 reforms
- 3 Example
- 4 Class 2 reforms
- 5 Application**
  - Sources
  - Efficiency
  - Political Economy
  - Welfare**
- 6 Conclusion
- 7 Back up

# Towards Individual Taxation – Welfare I

Figure: Welfare Analysis, 2019

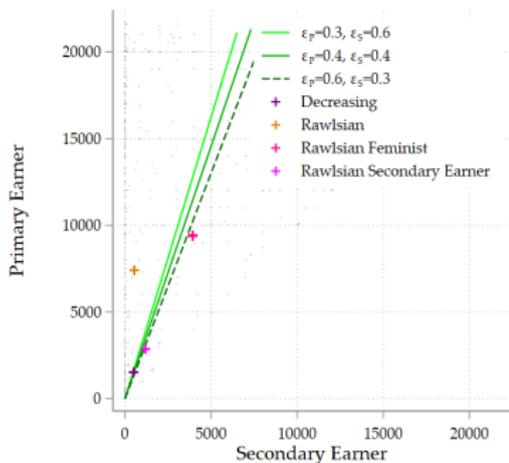


- With equal weights welfare implications depend on ass. on elasticities.
- A social planner with feminist weights supports the reform.

Source: own calculations based on CPS and NBER TAXSIM.

# Towards Individual Taxation – Welfare II

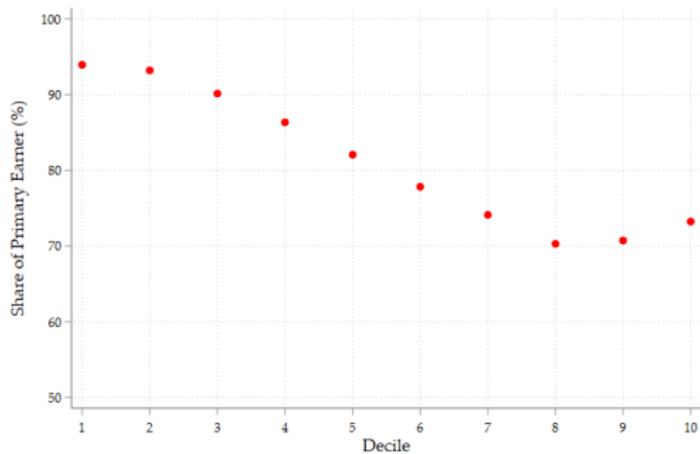
Figure: Welfare Analysis, 2019



- With Rawlsian weights, not welfare-improving, because many single-earner couples among low incomes.
- There is a trade-off between competing policy objectives.

Source: own calculations based on CPS and NBER TAXSIM.

# Mean Income Share of Primary Earner, 2019



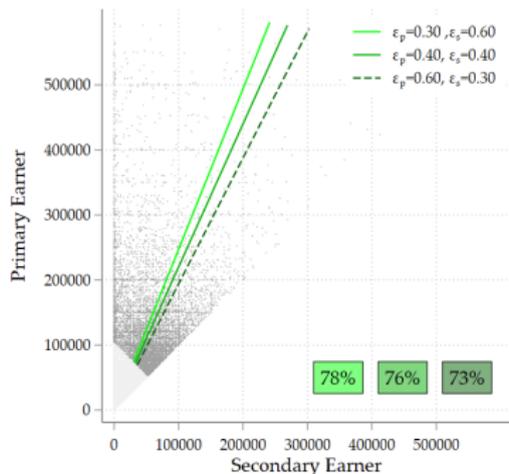
# Is there a politically feasible reform that increases both Rawlsian and Feminist welfare? I

An alternative revenue neutral reform:

- Lower *MTRs* for all secondary earners
- Increase *MTRs* only for primary earners from the upper half of the income distribution
- Shifts the line dividing winning and losing couples upwards
- By construction, Rawlsian welfare will not go down

# Is there a politically feasible reform that increases both Rawlsian and Feminist welfare? II

Figure: Political feasibility, 2019

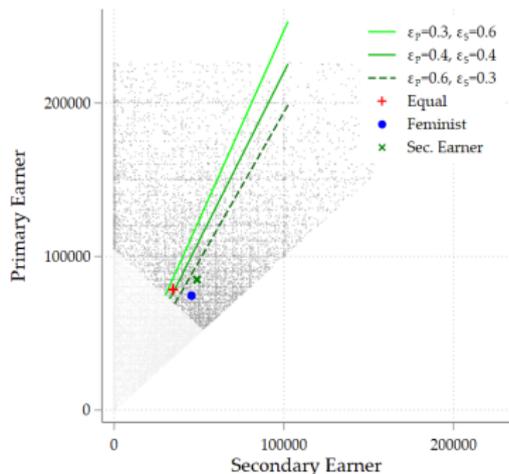


Source: own calculations based on CPS and NBER TAXSIM.

⇒ Robust majority support

# Is there a politically feasible reform that increases both Rawlsian and Feminist welfare? III

Figure: Welfare analysis, 2019



Source: own calculations based on CPS and NBER TAXSIM.

⇒ Feminist welfare up

# Concluding Remarks

Is lowering *MTRs* for secondary earners a “no brainer”?

- Some details matter.
- Moving towards individual taxation for all couples is good for secondary earners/ women, but bad for “the poor”.
- In the US: it may be politically feasible now, but was not in the past.
- More targeted reductions of *MTRs* for secondary earners don't give rise to such a trade-off. They are efficiency-enhancing.
- It may not possible to realize efficiency gains without breaking with the principle that the tax base for couples is the joint income.

# Average Elasticity (1985)

Figure: Average Elasticity,  
 $\epsilon_P = 0.6, \epsilon_S = 0.3$

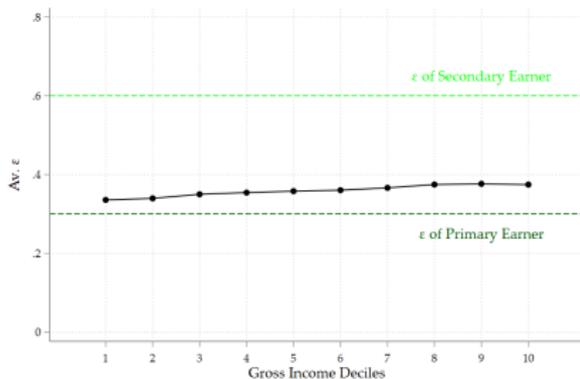
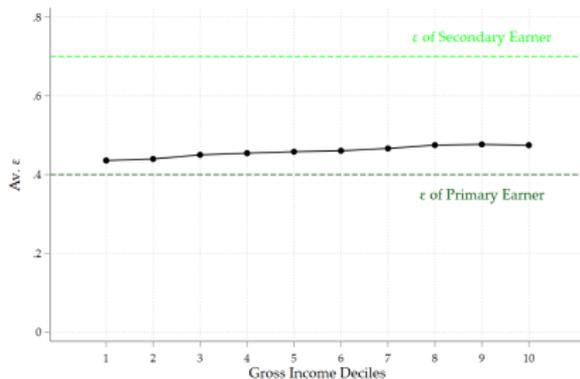


Figure: Average Elasticity,  
 $\epsilon_P = 0.7, \epsilon_S = 0.4$



Source: Own calculations based on CPS and NBER TAXSIM.

# Average Elasticity (2019)

Figure: Average Elasticity,

$$\epsilon_P = 0.6, \epsilon_S = 0.3$$

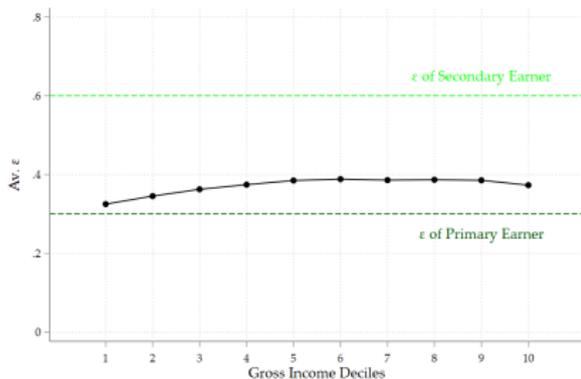
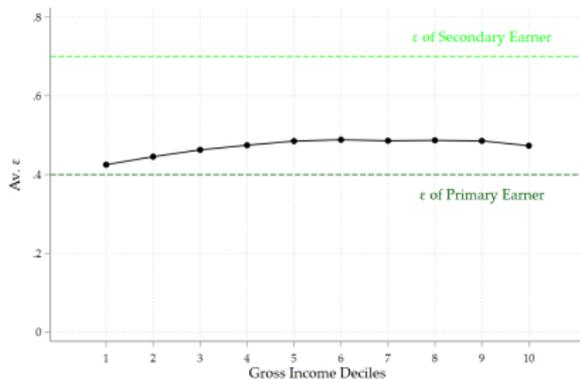


Figure: Average Elasticity,

$$\epsilon_P = 0.7, \epsilon_S = 0.4$$



Source: Own calculations based on CPS and NBER TAXSIM.