A reform-oriented approach to political parties' revealed social preferences

Felix BierbrauerMaximilian BlömerLilly FischerEmanuel HansenManuel PannierAndreas Peichl

January 9, 2024

Can we measure political parties' social preferences by solely analyzing the effects of the reforms proposed in their election proposals?

Can we measure political parties' social preferences by solely analyzing the effects of the reforms proposed in their election proposals?

This paper: studies the question in the context of German parties' tax-transfer proposals from 1990-2021

Can we measure political parties' social preferences by solely analyzing the effects of the reforms proposed in their election proposals?

This paper: studies the question in the context of German parties' tax-transfer proposals from 1990-2021

estimate MVPFs for German parties' tax-transfer proposals

- examine more than 300 party election proposals related to the tax-transfer system
- use microsimulation (ifo-MSM) to compute their hypothetical impacts

Can we measure political parties' social preferences by solely analyzing the effects of the reforms proposed in their election proposals?

This paper: studies the question in the context of German parties' tax-transfer proposals from 1990-2021

estimate MVPFs for German parties' tax-transfer proposals

- examine more than 300 party election proposals related to the tax-transfer system
- use microsimulation (ifo-MSM) to compute their hypothetical impacts

estimate German parties' social welfare preferences

- use inverted MVPF to recover implied welfare weight for reform beneficiaries
- aggregate welfare weights of single proposals for each party in each election year

Roadmap of Talk

MVPF and parties' social welfare weights - method

MVPF and parties' social welfare weights - results

Conclusion and next steps

Microsimulation for Reform Proposal Evaluation

Problem: large majority of reform proposals never implemented, let alone evaluated

Solution: ifo Microsimulation Model to generate a counterfactual post-reform state

- based on microdata from the German Socio-economic Panel (SOEP)
- ifo MSM's comprehensive representation of the German tax and transfer system \rightarrow obtain accurate measures of individuals' taxes, transfers and disposable income

MVPF for tax reform j (Hendren and Sprung-Keyser 2020): • how to get y^1

$$MVPF_j = rac{WTP_j}{\text{Net Costs}_j}$$

MVPF for tax reform j (Hendren and Sprung-Keyser 2020): • how to get y^1

$$MVPF_{j} = \frac{WTP_{j}}{\mathsf{Net}\,\mathsf{Costs}_{j}} = \frac{E[T^{0}(y_{i}^{0}) - T^{1}(y_{i}^{0})]}{E[T^{0}(y_{i}^{0})] - E[T^{1}(y_{i}^{1})]}$$

MVPF for tax reform j (Hendren and Sprung-Keyser 2020): • how to get y^1

$$MVPF_{j} = \frac{WTP_{j}}{\text{Net Costs}_{j}} = \frac{E[T^{0}(y_{i}^{0}) - T^{1}(y_{i}^{0})]}{E[T^{0}(y_{i}^{0})] - E[T^{1}(y_{i}^{1})]}$$

mean mechanical change in disposable income due to reform

MVPF for tax reform j (Hendren and Sprung-Keyser 2020): • how to get y^1

$$MVPF_{j} = \frac{WTP_{j}}{\mathsf{Net}\,\mathsf{Costs}_{j}} = \frac{E[T^{0}(y_{i}^{0}) - T^{1}(y_{i}^{0})]}{E[T^{0}(y_{i}^{0})] - E[T^{1}(y_{i}^{1})]}$$

change in mean tax revenue inclusive of behavioral responses

MVPF for tax reform j (Hendren and Sprung-Keyser 2020): • how to get y^{1}

$$MVPF_{j} = \frac{WTP_{j}}{\mathsf{Net}\,\mathsf{Costs}_{j}} = \frac{E[T^{0}(y_{i}^{0}) - T^{1}(y_{i}^{0})]}{E[T^{0}(y_{i}^{0})] - E[T^{1}(y_{i}^{1})]}$$

welfare weight for tax reform *j*: • details

$$\bar{\eta}_j = \frac{1}{MVPF_j} = \frac{E[T^0(y_i^0)] - E[T^1(y_i^1)]}{E[T^0(y_i^0) - T^1(y_i^0)]}$$

MVPF for tax reform j (Hendren and Sprung-Keyser 2020): • how to get y^{1}

$$MVPF_{j} = \frac{WTP_{j}}{\mathsf{Net}\,\mathsf{Costs}_{j}} = \frac{E[T^{0}(y_{i}^{0}) - T^{1}(y_{i}^{0})]}{E[T^{0}(y_{i}^{0})] - E[T^{1}(y_{i}^{1})]}$$

welfare weight for tax reform *j*: • details

$$\bar{\eta_j} = \frac{1}{MVPF_j} = \frac{E[T^0(y_i^0)] - E[T^1(y_i^1)]}{E[T^0(y_i^0) - T^1(y_i^0)]}$$

 $\Rightarrow \bar{\eta_i}$ the same for all reform beneficiaries

Roadmap of Talk

MVPF and parties' social welfare weights - method

MVPF and parties' social welfare weights - results

Conclusion and next steps

Example: Greens 2013 • Left • SPD • CDU • FDP



Example: Greens 2013 • Left • SPD • CDU • FDP



Example: 2013 (dpi-weighted smoothed average)
smoothed
smoothed
simple
all years



Roadmap of Talk

MVPF and parties' social welfare weights - method

MVPF and parties' social welfare weights - results

Conclusion and next steps

Conclusion & Outlook

Takeaways:

- 1. microsimulation can help us compute MVPFs of hypothetical reforms
- 2. MVPF framework can be used to recover parties' social preferences

Outlook:

- compare to inverse-optimum tax approach [Jacobs et al. 2017]
- take statements favoring the status quo into account
- simulate a 'marginal reform on top'
- what if parties disagree on elasticities?
- *extension to political economy*: are parties' election proposals informative for policies enacted by a coalition government? Hypotheses

Thank you!

Comments and suggestions very welcome!

Post-reform income and revenue effects

$$y_i^1 = (1 - \frac{\tau_i^1 - \tau_i^0}{1 - \tau_i^0} \varepsilon_i) y_i^0$$

$$\Delta T_i = (1 - \pi_i \frac{t_i^1 - t_i^0}{1 - t_i^0}) t_i^1 y_i^1 - t_i^0 y_i^0$$

Assumptions: $\pi = 0.2$; $\varepsilon = 0.25$

social welfare impact of policy *j*:

$$rac{dW}{d au_j} = ar\eta_j \sum_i WTP^j_i + rac{dR}{d au_j}$$

social welfare impact of policy *j*:

$$\frac{dW}{d\tau_j} = \frac{\eta_j}{\sum_i} WTP_i^j + \frac{dR}{d\tau_j}$$

assuming optimality of policy *j*:

$$rac{dW}{d au_j} = ar\eta_j \sum_i WTP_i^j + rac{dR}{d au_j} = 0$$

social welfare impact of policy *j*:

$$\frac{dW}{d\tau_j} = \frac{\eta_j}{\sum_i} WTP_i^j + \frac{dR}{d\tau_j}$$

assuming optimality of policy *j*:

$$rac{dW}{d au_j} = ar\eta_j \sum_i WTP^j_i + rac{dR}{d au_j} = 0$$

$$\bar{\eta_j} = \frac{-dR(\tau_j)}{\sum_i WTP_i^j} = \frac{E[T^0(y_i^0)] - E[T^1(y_i^1)]}{E[T^0(y_i^0) - T^1(y_i^0)]} = \frac{\mathsf{Net}\,\mathsf{Costs}_j}{WTP_j} = \frac{1}{MVPF_j}$$

social welfare impact of policy *j*:

$$\frac{dW}{d\tau_j} = \frac{\eta_j}{\sum_i} WTP_i^j + \frac{dR}{d\tau_j}$$

assuming optimality of policy *j*:

$$rac{dW}{d au_j} = ar\eta_j \sum_i WTP^j_i + rac{dR}{d au_j} = 0$$

$$\bar{\eta_j} = \frac{-dR(\tau_j)}{\sum_i WTP_i^j} = \frac{E[T^0(y_i^0)] - E[T^1(y_i^1)]}{E[T^0(y_i^0) - T^1(y_i^0)]} = \frac{\text{Net Costs}_j}{WTP_j} = \frac{1}{MVPF_j}$$

 $\Rightarrow \bar{\eta_j}$ the same for all reform beneficiaries

social welfare impact of policy *j*:

$$\frac{dW}{d\tau_j} = \frac{\eta_j}{\sum_i} WTP_i^j + \frac{dR}{d\tau_j}$$

assuming optimality of policy *j*:

$$rac{dW}{d au_j} = ar\eta_j \sum_i WTP_i^j + rac{dR}{d au_j} = 0$$

$$\bar{\eta_j} = \frac{-dR(\tau_j)}{\sum_i WTP_i^j} = \frac{E[T^0(y_i^0)] - E[T^1(y_i^1)]}{E[T^0(y_i^0) - T^1(y_i^0)]} = \frac{\operatorname{Net} \operatorname{Costs}_j}{WTP_j} = \frac{1}{MVPF_j}$$

- $\Rightarrow \bar{\eta_i}$ the same for all reform beneficiaries
- \Rightarrow identify $\bar{\eta}_i$ for all reform proposals of party p
- \Rightarrow construct social welfare function by combining $\bar{\eta}_j$'s along the income distribution

MVPF

Example: Left 2013 - Greens



Example: Social Democrats 2013 • Greens



Example: Christian Democrats 2013 • Greens



Example: Liberals 2013 • Greens



Example: Left 2013 • Greens



Example: Social Democrats 2013 • Greens



Example: Christian Democrats 2013 • Greens



Example: Liberals 2013 • Greens



Example: 2013 (smoothed average) • dpi-weigthed smoothed



Example: 2013 (simple average)
• dpi-weigthed smoothed



Example: Left 2013 - Greens



Example: Social Democrats 2013 • Greens



Example: Christian Democrats 2013 • Greens



Example: Liberals 2013 • Greens



1990-2021 (dpi-weighted smoothed average) > 2013



Hypotheses

- 1. The coalition government does not enact anything that is explicitly ruled out by one coalition partner. exclusion restrictions
- 2. Only such reforms, which are welfare-enhancing according to all coalition partners' revealed preferences, are enacted.
- 3. Only such reforms, which are welfare-enhancing for one of the coalition partners and not ruled out by any other coalition partner, are enacted.

Hypotheses

- 1. The coalition government does not enact anything that is explicitly ruled out by one coalition partner. exclusion restrictions
- 2. Only such reforms, which are welfare-enhancing according to all coalition partners' revealed preferences, are enacted.
- 3. Only such reforms, which are welfare-enhancing for one of the coalition partners and not ruled out by any other coalition partner, are enacted.

 \rightarrow results coming soon - WIP ightarrow Conclusion

Hypothesis 1

The coalition government does not enact anything that is explicitly ruled out by one coalition partner.

Ex.1 CDU/CSU 2013: 'maintain income splitting and add family splitting' SPD 2013: 'we reject family splitting as it favors top incomes'

Ex.2 SPD 2021: '[...] we want to reinstall the wealth tax.' FDP 2021: '[...] we reject the reinstallment of the wealth tax.'

 \Rightarrow none of these proposals has been implemented Hypotheses