Pre-Analysis Plan

Study Information

1. Title: **Inequality, Ideology, and Redistribution**

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3. Research Questions

We explore how different levels and types (advantageous vs. disadvantageous) of income inequality influence voter preferences and ideological perceptions of tax policy platforms. We employ survey experiments embedded in nationally representative surveys in the US, Denmark, Italy, and Mexico. Our study is meant to improve our understanding of the political consequences of economic inequality and the mass politics of tax reforms.

We study several inequality-based explanations of voters' policy preferences and mass perceptions of the ideological position of policy options.

1. Summary: We are interested in exploring how aggregate-level and specific tax policy features affect reform support and the perceived ideological position of a tax reform proposal. Also, we study whether inequality explains and moderates policy preferences and perceptions of the available policy options.
2. Tax policy features: tax policy proposals prescribe an allocation of costs (the tax burden). Taxes also promise benefits which are determined by the allocation of revenues. Evaluating preferences over tax reforms in isolation may overestimate aversion to taxes because individuals lack information about the redistributive nature of the reform which may affect their willingness to approve tax policy changes. Therefore, we also study how the redistributive component of tax policy in terms of a rebate for the poor affects outcomes. The specific design features we are interested in are.
    a. Tax intensity: the average tax rate across income groups. We expect that higher tax intensity decreases support and are deemed more leftist.
    b. Progressivity: the extent to which taxes increase as an individual's income increases. Progressive tax rates feature an elasticity strictly greater than zero. We expect that progressiveness increases support and is deemed more leftist. We note that with purely selfish voters, high earners should oppose progressive schedules more than the poor (and deem the schedules to be more leftist). Alternatively, with sociotropic voters, high earners could be more supportive of progressive schedules than the poor (and deem the schedules to be more leftist).
    c. Tax for own income group: higher personal taxes decrease support and cause this reform proposal to be considered more leftist.
    d. Rebate for the poorest: An increase in the rebate for the poorest increases reform support and causes the proposal to be perceived as more leftist. In addition, we expect that reform support increases more strongly among the poor and less strongly among the rich (under egoistic preferences).
    e. Sensitivities to individual tax rates: we also explore sensitivities to the design of individual tax rates. We expect that higher taxes on the poor reduce support and are perceived to be more leftist. In contrast, we expect that individuals are less sensitive to tax rate changes for high earners.

f. We expect support for progressivity, tax intensity and to be higher among individuals who are more averse to inequality. We expect that higher rebates will cause more support among those who are averse to advantageous inequality.

3. Inequality context: Inequality may affect mass perceptions of the available policy options in a prospective or retrospective fashion:
    a. [Retrospection] Voters may evaluate the available policy platforms retrospectively given the observed level of inequality. Compared to a low inequality context, individuals experiencing high inequality may infer that the existing policy options are less redistributive (less "leftist") than previously thought. Therefore, a high-inequality context will lead individuals to place the available policy options further to the right on the left-right ideology spectrum.
    b. [Prospection] Individuals could evaluate the available political options in a prospective manner by revising their beliefs about the likelihood of redistributive interventions. Compared to a low inequality scenario, individuals considering a high inequality context should deem it more likely that redistributive policy options will be implemented in the future. Therefore, they will place the corresponding policy options further to the left on the ideological spectrum. In contrast, the perceptions of conservative policies' ideological positions should be, if at all, less affected.
    c. One explanation for the sensitivity of ideological perceptions to inequality is self-interest. High earners could be more concerned about left-wing parties increasing their fiscal burden under high inequality conditions than low earners. This could lead high-income individuals to perceive the ideological location of redistributive policy options/candidates as more leftist than low earners (Muraoka and Rosas 2020).
    d. The above effects could also be related to whether voters are averse to advantageous and disadvantageous inequality. We are able to test this mechanism by performing subgroup analyses and estimate interactions based on the tax rate imposed on the respondent's income group in the conjoint experiment. Also, we investigate interactions between tax policy preferences and the inequality aversion measures developed in Bechtel, Scheve, and Liesch 2018.
    e. Left-right perceptions could be directly driven by inequality (see above) or indirectly via the context-dependent appeal of redistributive policy interventions (e.g., higher progressivity, higher tax intensity, higher taxes on the rich,…). Therefore, we explore whether:
        i. Advertising more redistributive policy measures/platforms causes individuals to perceive policies, parties, and candidates espousing these measures/platforms as more leftist.
        ii. The effect of more redistributive policy measures (e.g., higher progressivity, higher tax intensity, higher taxes on the rich,…) on ideological perceptions is stronger under high inequality conditions.

4. Additional questions: To what extent do the answers to the questions above differ across subgroups including partisanship, ideology, knowledge, sex, race, education, age, parental status, income, other sociodemographic characteristics, fairness norms and beliefs, subjective assessments of economic and environmental conditions, objective economic and environmental conditions, risk and time preferences, and measures of attention?

Study Design and Sampling Plan

1. Study design: We rely on cross-sectional, single wave surveys that include randomized experiments to generate within-subject and cross-subject variation in exposure to treatments.

2. Data: As of the date of submission, the data collection has not been started. Therefore, none of the data has been quantified, constructed, observed, or reported by any of the researchers.
3. Data collection procedures: We field online surveys to representative samples of the adult population with access to the internet in the US, Denmark, Italy, and Mexico. Subjects will be compensated.
4. Sampling strategy: quota sampling with quotas on education, gender, and age
5. Sample size: About 1,500 in each country.
6. Sample size rationale: The targeted sample size follows the literature that has used multi-country surveys that included high-dimensional experiments
7. Stopping rule: we will stop sampling once we have reached at least the targeted number of observations and the sociodemographic quotas.
8. Blinding: Respondents will not know the treatment group to which they have been assigned.

Estimation of quantities of interest

The main quantities of interest in our experiment are the effects of aggregate-level tax policy design features and inequality on support for tax reforms and their ideological perceptions. We estimate these effects based on a conjoint experiment. We will estimate average marginal component effects corresponding to tax rates on different income brackets advertised by hypothetical tax plans. We also estimate models that include additional socioeconomic predictors in regression models; inclusion of such socioeconomic predictors aims to reduce estimation uncertainty (because of randomization, we do not expect these predictors to be correlated with assignment into different treatment conditions). We also estimate generalized additive models that analyze how tax policy features affect outcomes overall and by covariates that capture self-interest, inequality aversion, and sociodemographic characteristics.

Inequality and Tax Policy Conjoint Experiment: Design

This is a vignette experiment that combines a randomized conjoint experiment that describes the tax plans of two potential tax plans and asks respondents to indicate their preference and where they place each of the plans on the left-right scale. The conjoint is paired with a vignette experiment that describes a hypothetical scenario that details how income is distributed, i.e., how much a respondent and others would be earning. The survey instrument first provides the inequality context and then asks respondents to complete the tax policy conjoint task within that context.

We explore these features in a conjoint experiment that asks respondents to assess different tax policy proposals that specify a tax rate for each income group. These proposals are determined as follows.

1. We randomly draw an average tax rate (tax intensity) and a progressivity level that reflects the observable distribution in OECD countries while respecting plausible bounds on the tax rates. The tax intensity set is [14.62, 44.65] and the progressivity slope set [-0.15, 0.78].
2. We use 70 as the percentile corresponding to the average income and simulate the tax rates for each income group by interpolating the associated tax rate given the tax rate average and progressivity. To generate some independent variation in the tax rates we add (asymmetric) noise to expected values in the following fashion: For income groups 1 and 2 (lowest two income groups, 0-40 and 41-60 percentiles, respectively), we use the rule runif()*(3 + 2) - 2); for groups 3 through 6 (61-80, 81-90, 91-99, and 100 percentiles), we use the rule runif()*(5 + 2) - 2). Using these parameters, we obtain the following values across 1000 simulations:

	min	25th	50th	75th	max
Income group1	0	2	15	26	53
Income group2	0	16	24	31	48
Income group3	13	24	31	38	49
Income group4	12	28	36	43	57
Income group5	11	31	39	47	66
Income group6	10	31	41	49	70

Tax intensity	14 24 31 38 48

Fairness, Policy Views, Sociodemographics, Other
These variables include individual-level measures of inequality aversion estimated as described in Bechtel/Liesch/Scheve (2018, PNAS).

Ethics Oversight
IRB at Washington University in St. Louis, United States