Tax Exposure and Political Preferences*

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Abstract

How do people form preferences over tax policy proposals? This paper introduces the concept of *tax exposure* to explain the determinants of tax preferences. Moving beyond traditional models that link attitudes to taxation in a linear fashion to income or wealth, we argue that preferences are often discontinuous or nonlinear around tax thresholds. Furthermore, tax preferences are shaped by both contextual factors—such as the prevailing tax environment and its implications for personal exposure to tax changes—and the partisan context, which informs expectations about the trajectory of future taxation. We test these arguments using three complementary datasets: a conjoint experiment in the United Kingdom (2021), a survey of U.S. tax preferences in the context of the 2018 Trump tax bill, and a cross-national dataset covering 30 countries from 1985 to 2017. Our findings demonstrate the critical role of tax exposure in structuring individual and contextual variation in tax policy preferences.

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Introduction

Taxes are complex. Political economy models of taxation, however, are rather simple. Since the foundational work of Meltzer and Richard (1981) political scientists have been drawn to a basic model of the politics of redistributive taxation which assumes that everybody pays the same flat rate of tax and receives absolute benefits of a uniform size. This set-up means that the fiscal system is progressive and produces a wide array of expectations that have created great debate in political economy: Do people with above average income prefer taxes to be as low as possible (Rueda and Stegmueller, 2019), does the median voter want higher redistribution when inequality is high (Kenworthy and Pontusson, 2005), do democracies—with their relatively poor median voters—produce higher taxation (Boix, 2003; Ansell and Samuels, 2014)?

The Meltzer-Richard model is analytically tractable but is a poor reflection of how existing tax systems actually work. In vanishingly few countries is the income tax actually flat—the main places where it has been introduced are in post-Communist states (Baturo and Gray, 2009). Instead, tax-payers in advanced industrial countries typically face a progressive tax schedule where marginal income tax rates rise with the taxpayer's income. Adjustments to income taxes can be made by politicians which differentially benefit low-earners, middle-earners, and high-earners. And while most income tax systems are nominally progressive—having higher marginal rates for higher earners—reforms can make them more or less progressive by targeting different parts of the income distribution (Barnes, 2015). Finally, most tax systems have some form of 'horizontal inequity'—people with the same income may face different income tax rates depending on other characteristics—for example, whether they own property, or what other taxes they pay (Mares and Queralt, 2015).

Taxpayers know this. They are often quite excised about changes to the top marginal rate of income, or at the bottom end about the introduction or removal of 'standard deductions' or exemptions on the first several thousands of dollar earnings (Ambrose and Valentin, 2024). The deductibility of other taxes or of mortgage interest is another hot-button issue (Jacobs, 2021). Accordingly, debates in the media about taxation focus on these policy changes rather than on Meltzer-Richard like aggregate levels of redistribution. But in political economy most of our empirical analysis, largely for data availability reasons, uses very blunt measures of tax preferences—typically questions about attitudes towards the overall size of government or about redistributing money from 'those with high incomes' to 'those with low incomes' to use the language from a well-known survey question (Guillaud, 2013; Rueda and Stegmueller, 2019; Bobzien, 2020). However, in recent years more specific survey questions, and more accurate data on income and wealth, has become available, allowing us to address more refined questions about fiscal preferences.

In this paper we develop the concept of 'tax exposure' in order to explain how citizens form their attitudes

towards taxes. Whereas the commonly used concept of 'risk exposure' implies that citizens will form social policy preferences based on their expectations about benefiting in the future from social protection (see e.g., Iversen and Soskice, 2001; Moene and Wallerstein, 2001; Rehm, 2011), 'tax exposure' relates to citizens' expectations about the likely tax environment they will face and the costs they might incur from changes in taxation.

Tax exposure depends on three key components. Firstly, citizens' current income and/or wealth and the level at which tax bands are set. We expect citizens to have sharply defined preferences around such boundaries, reflecting their *direct exposure* to higher marginal tax rates. Secondly, tax preferences will depend on national and regional *contextual exposure*—that is, the prevailing level of taxation that individuals face. We expect that individuals will become ever less supportive of increased tax rates, the higher is prevailing taxation of income or property. Finally, we expect citizens to think about *prospective exposure*; that is, what are the likely future trajectories of taxes, and how might that depend on partisan control of government?

After theoretically developing our argument about tax exposure, we conduct three separate empirical studies. We begin by examining highly specific *direct* tax preferences, analyzing the result of an original conjoint experiment on preferred income tax rates on different income tax brackets from a new representative survey of England and Wales. The results show that people are strongly in favor of low marginal tax rates and highly opposed to high marginal tax rates on the tax bracket in which their income falls.

We then turn to examining how variation in the local *context* affects tax preferences using the Combined Congressional Election Survey conducted in the United States in 2018. This survey has a series of questions relating to the Trump tax bill, which limited the deductibility of both mortgages above $500,000 and of state and local taxes. Hence citizens were differentially affected by the bill dependent on where they lived (due to differences in property prices and in the prevailing state and local tax rates). These questions allow us to tease out the varied tax exposure of respondents with very different incomes and wealth, dependent on their zip-code of residence. We are able to merge data on local house prices and property tax rates in order to examine the importance of this geographical context in shaping tax exposure and preferences. We find that homeowners in places with high house prices or high property taxes are unsupportive of removing these deductions.

We conclude with an extensive analysis of several waves of the International Social Survey Program which covers thirty countries at intervals between 1985 and 2017. These surveys ask a series of questions about respondents' preferred tax rates on groups of different incomes—thus we can examine how individuals feel about taxing 'the rich' rather than those on middle or low incomes. Using the ISSP's income data we break the pool of survey respondents into different income deciles and examine the correspondence between an individual's place in the income distribution and their attitude towards taxing different parts of the

distribution. We show that individuals demonstrate coherent preferences in terms of who they want to pay higher or lower taxes. But we also show these preferences depend on national *contexts* and *prospective* expectations about how any tax change may play out given the national political environment. In particular we find that wealthy citizens are much more concerned about the rich paying higher taxes where left-wing parties are in government or marginal tax rates on the rich are already high.

Tax Exposure

For good and for ill, political economy theories of attitudes to taxation are in thrall to the elegance of the Meltzer-Richard model of redistribution (Meltzer and Richard, 1981). The model is elegant because with a simple setup it explains a lot—richer people want lower taxation; higher inequality should push up the demands for redistribution for a majority of the population; a wealthier pivotal 'voter' (or selectorate in an authoritarian country (De Mesquita et al., 2005)) will produce lower redistribution, and so forth. The reason the model is so fertile in terms of its predictions—and so adaptable for later scholars (e.g. Persson and Tabellini (2002))—is because it assumes a proportional tax system and a flat absolute universal transfer. In such a setup, everyone with higher than mean income wants zero redistribution and everyone with less than mean income wants positive redistribution (the model avoids below-mean individuals wanting 'complete' redistribution by adding a 'cost' of redistribution, namely that it reduces labor supply and hence the amount of resources that could be redistributed).

But of course taxation is not usually proportional to income—very few countries have truly flat income tax systems. For that matter benefits are not necessarily universal either. Alterations to either assumption change the progressivity of the tax system. It is important to note that the Meltzer-Richard model is in fact a progressive fiscal system in that poorer people pay in less than they receive (and vice versa for the rich) due to the flat-rate benefit. But real-world income tax systems are usually progressive in the sense that the average tax rate paid increases with income. Of course other parts of the tax system might be regressive—consumption taxes are typically viewed as fiscally regressive since wealthier people are assumed to consume a smaller proportion of their income. Citizens are aware of this—when people say the rich should pay more in taxes they don't generally mean that they should do too (even though an increase in the rate of a flat tax would indeed mean the rich paying 'more' in taxes).

The political economy literature has in part kept to the flat-rate world of the Meltzer-Richard model because introducing progressivity means introducing extra parameters to an elegant model. Even a simple quadratic model of income taxation means two parameters—one for the linear rate and one for the quadratic term. Similarly modeling tax progressivity through a 'standard deductible' means two parameters—one for

the linear rate again and one for the income threshold where taxation jumps from zero to that rate. And accordingly such models can quickly fall into the standard problems of multi-dimensional politics where deriving a median voter's preferred set of policies is difficult. Nonetheless, although it may be hard to establish optimal *aggregate* policy outcomes in such models, deriving the preferences of *individuals* is somewhat simpler. A number of papers including De Donder and Hindriks (2003); Ansell (2007); Beramendi and Rehm (2016); Cansunar (2021) develop models of preferences over tax progressivity, which show that lower income individuals desire more progressive taxation and that the group of people who prefer more progressive taxation rises as inequality does.

A growing empirical literature has examined these theoretical claims about the support for tax progressivity. Ballard-Rosa, Martin and Scheve (2017), using a conjoint experiment that randomly varies tax rates on income brackets in the US, find that the American public has progressive tax preferences on average. Barnes (2015) finds that individual tax preferences indicate that while higher tax levels are generally disliked, greater tax progressivity is a popular policy. Berens and Gelepithis (2019) show that welfare spending mainly targeted on the poor decreases support for tax progressivity, while in systems where welfare states mostly provide social insurance for those in the middle and high-income groups, progressive taxation has higher popularity. Beramendi and Rehm (2016) links the tax system's progressivity to preferences over redistribution, showing evidence that the impact of income on preferences over redistributive policies is higher in systems with high tax progressivity. Stiers et al. (2022) ask respondents to enter the marginal tax rate they think should apply to the incomes of the 'rich' and 'poor'.

Still, real-world tax reforms are usually more specific than simply more or less progressive taxation defined by a progressivity parameter. Tax reforms tend to hit specific groups, perhaps defined by income, perhaps defined by some other economic characteristic such as wealth, or a demographic characteristic defined by family structure or age. Developing theories that only alter a single tax rate or progressivity parameter may mean missing a good deal of variation in both empirical tax incidence and in how people form preferences. Rather then than beginning from a standard political economy framework with people distinguished only by income, voting on a single tax parameter, we develop the concept of *tax exposure*—an individual-level expectation of higher or lower taxes that mirrors the way political economists think of risk exposure (Rehm, 2009; Rehm, Hacker and Schlesinger, 2012).

Our concept of tax exposure centers on a given individual's assessment of what any particular tax reform means for them materially. We thus abstract away from concerns about tax fairness (Lü and Scheve, 2016; Cavaillé, 2023), group identity (Shayo, 2009), or altruism (Rueda and Stegmueller, 2019). Unlike the Meltzer-Richard model (or articles that extend this to progressivity such as Beramendi and Rehm (2016)) we do not assume that people derive their preferences from a full assessment of both taxes and spending. Our model

then is rather simpler—if people expect to pay more in taxes they will oppose a reform. But how do they form such expectations?

In our view tax exposure expectations come from three sources. First, we begin with individual-level characteristics. In particular, we argue that we should think of income not simply as a single continuous variable but rather as split into different groups ordered by income, only some of whom are likely to face higher taxes. To provide an example, many tax reforms cut in at a certain income threshold, and when politicians reform taxes they typically do so by altering tax bands around those thresholds or moving the thresholds themselves. We should expect individuals on either side of a threshold to respond differently to potential tax reforms. Tax exposure is often *discontinuous* in this fashion. Hence in an ideal analysis we would know individuals' taxable income and the relevant tax bands for a policy and could derive their preferences from that. When we move to cross-national data, or where survey questions are less precise about policies, such a set-up is unlikely to be possible. However, even in this case we think it makes sense to examine tax preferences by splitting the survey into income deciles in order to establish whether attitudes to taxation display these kinds of discontinuities more generally. Looking at income groups means thinking about the 'vertical' incidence of taxation. In a number of cases, the 'horizontal' incidence will also matter—for example, where people within income groups are differentially affected by tax reforms that take into account family size. Both vertical and horizontal incidence ought to matter for tax exposure expectations.

Second, tax exposure expectations come from the existing tax context in which an individual lives. This relates to where they live and how that geography affects the taxes they have to pay. The simplest way to think about this is to examine individuals of the same income who live in jurisdictions with differing prevailing tax rates. We could do this accurately within one country where state or regional income taxation varies substantially or more loosely by looking at attitudes towards tax progressivity across different countries with varying income tax rates. Another consideration is how where individuals lives determines the degree to which they benefit from tax deductions. In many countries individuals can deduct mortgage interest costs or property taxes from their income taxes. In countries with federal sub-units, individuals may be able to deduct local or regional taxes from their federal taxes. In both cases, prevailing property prices or local taxes will shape individuals' expected tax exposure.

Third, tax exposure expectations come from potential future tax contexts. In particular, individuals will have expectations about what the likely path of taxation is depending on which political party controls government. In survey questions, respondents are asked their views about possible tax policies—as they assess these policies they are likely to take into account the partisan nature of the government who would be implementing those policies. Where left parties are in power, wealthier citizens are likely to expect taxes on their incomes to rise (at least relative to taxes on the incomes of poorer citizens). By contrast when right

parties are in power, richer respondents may answer questions about taxation safe in the knowledge that taxes are unlikely to be raised on them.

In sum, an individual's tax exposure takes into account their personal material circumstances, the geographic context in which they are being taxed, and their expectations on how governments might alter tax policy. Bringing these conditions together we examine the following hypotheses:

Hypothesis One: Individual Effects There will be a non-linear or discontinuous negative effect of income on taxation which will be steepest around tax thresholds.

Hypothesis Two: Context Effects In locations with higher existing tax rates, richer individuals will be less supportive of progressive taxation. In areas with more expensive property, property-owners will be more concerned about losing tax advantages.

Hypothesis Three: Partisan Expectation Effects In locations where left-leaning governments are in power, higher-income citizens will be more negatively inclined towards progressive taxation.

Study 1: Evidence from a Conjoint Experiment on Income Tax Preferences in the UK

We begin by examining Hypothesis One, which expects tax thresholds to structure tax preferences in a nonlinear fashion. One disadvantage of existing cross-national questions about tax preferences used by most scholars examining tax preferences is that they have to be rather blunt. Usually they ask simply about reducing the 'gaps between rich and poor' (as in *inter alia* (Guillaud, 2013; Beramendi and Rehm, 2016; Bobzien, 2020)). Occasionally, they refer to different income groups but typically cannot define them in terms of currency (given large differences in cross-national average incomes) nor with reference to actual policies that are being proposed (Barnes, 2015).

In our first study, by contrast, we are able to examine whether specific tax policies alter preferences of individuals on either side of specific income thresholds in the existing or proposed tax codes. We are thus able to investigate whether individuals who would be direct winners or losers from such changes to tax policies exhibit support or opposition to such proposals.

To test our argument, we designed a survey that included a conjoint experiment designed to reveal the respondents' preferred marginal tax rates on income for various income brackets. The survey was conducted by YouGov, using their nationally representative online panel, and included 3186 adults living England and

Wales.[1]

YouGov collects information on the personal incomes of its panel (asking them to update their income information if they have not given it for three months), and it codes income into fourteen groups, moving by £5,000 intervals from 0 to £50,000, by £10,000 intervals from £50,000 to £70,000 and then two final categories of £70,000 to £100,000 and above £100,000. These categories allow us to match respondents quite closely to the structure of the UK income tax system, where incomes up to around £12,500 are untaxed, those from £12,500 to around £50,000 are taxed at the 'basic' rate of twenty percent, and those above £50,000 are taxed at the 'higher' rate of forty percent. Those individuals who earn over £100,000 lose their tax-free allowance gradually, thus paying a higher effective marginal rate, and those with incomes above £150,000 pay the 'additional rate' marginal tax rate of 45 percent.[2] However, we have few respondents (only 31) in this category. In our analysis, we therefore look at three income groups: those with personal incomes under £15,000 (similar to the untaxed group); those with personal incomes between £15,000 and £50,000, corresponding to the group who pay the basic rate; and those with incomes over £50,000, corresponding to those paying the higher (or additional) rate.

Our conjoint experiment follows Ballard-Rosa, Martin and Scheve (2017) in presenting respondents with a forced choice between two income tax schedules. Table 1 shows the dimensions and values used in the income tax conjoint experiment. For each tax plan pair that a respondent sees, the tax rates for each income level are randomly assigned. There are four levels of income in the conjoint, corresponding to the untaxed, basic, higher, and additional rates of tax prevalent in the UK. Like Ballard-Rosa, Martin and Scheve (2017) we do not force the randomised tax schedule to be progressive. However, unlike that paper we do set the possible tax rates per category such that progressive tax schedules are more common than regressive ones (for example, the higher and additional rates have a minimum of twenty percent, whereas incomes of below £12,500 have a maximum tax rate of twenty percent). Each respondent repeats the forced choice five times, providing just under 16,000 observed choices.

Figure 1 provides estimates of income tax progressivity preferences across the sample as a whole, showing both Marginal Means (MM) and the Average Marginal Component Effects (AMCE), with the lowest tax rate for that income group as the baseline. The figure shows that the UK public, as a whole, has progressive tax preferences. The existing tax-free status of income below £12,500 is clearly preferred to ten or twenty percent tax rates. A 'basic' rate of ten percent is marginally preferred to the actual 'basic' rate of twenty percent and a thirty percent unfavored. For the 'higher' rate tax bracket, the most popular choice is thirty percent but the existing rate of forty percent is similarly ranked. Finally, for the 'additional' rate tax

[1]The target respondent pool is a sample of adults from England and Wales aged 18 and over, representative of general England and Wales population on the dimensions of age, gender, income, region and other demographics.

[2]Since the time of the experiment, this threshold has been lowered to £125,000.

Table 1: Income Categories and Tax Rates in Income Tax Conjoint Experiment.

Income category	**Possible tax rates**
Income up to £12,500	%0, %10,%20
£12,500 to £50,000	%10, %20, %30
£50,001 to £150,000	%20, %30, %40, %50, %60
Income over £150,000	%20, %30, %40, %50, %60, %70

bracket, respondents favor higher rates of taxation than currently prevail—choosing fifty and sixty percent, as opposed to the existing rate of forty-five percent.

Our theoretical interest is not only in average views on progressivity but the degree to which people respond strongly to particular tax thresholds, dependent on their own income. Figure 2 breaks responses out into three income groups—those earning under £15,000; those earning between £15,000 and £50,000; and those earning over £50,000, which as noted above correspond to the zero-rate, basic-rate and higher rate of income taxation.

Considering preferences over tax rates on the lowest income bracket we see sharp—and statistically significant—differences between low-income and high-income respondents in terms of the zero percent tax rate and the twenty percent rate. Indeed, high-income respondents are indifferent between the lowest tax bracket being set at zero or at ten percent. By contrast, those who currently do not pay income tax are most strongly supportive of keeping the current zero rate and most opposed to the twenty percent rate proposal.

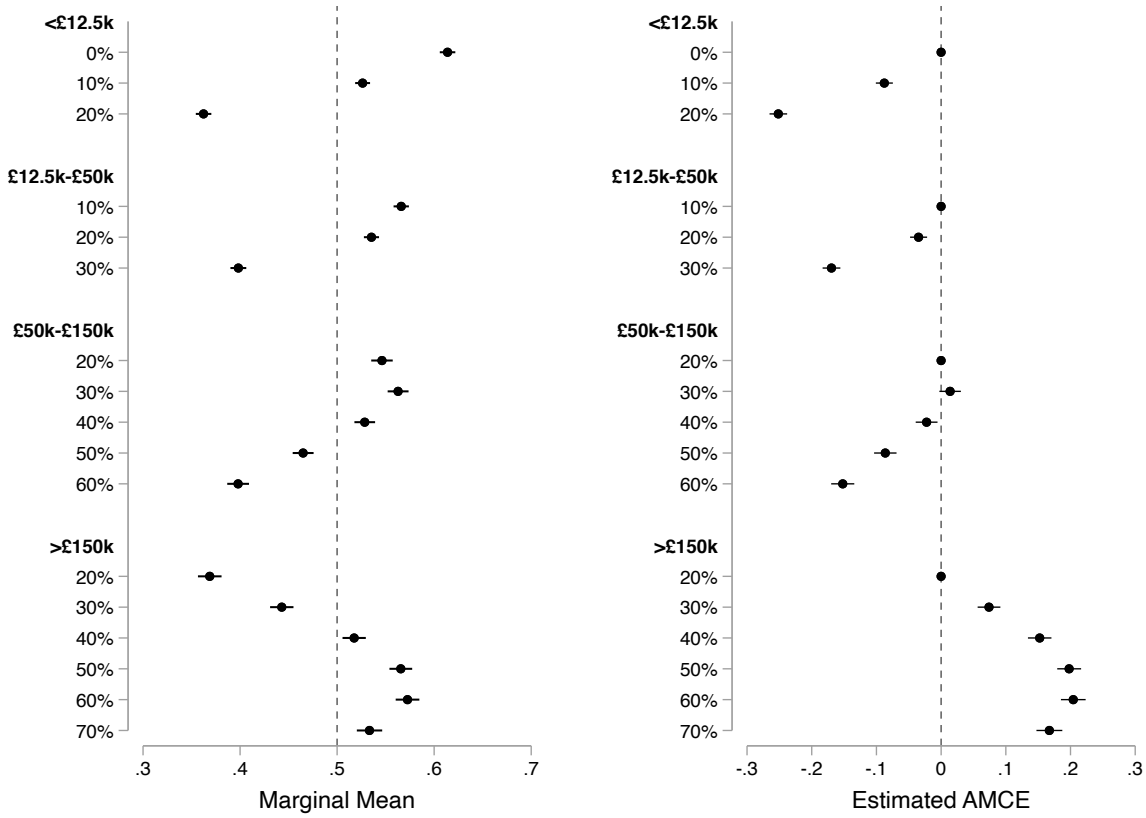
When we move to the basic rate of taxation (£12,500 to £50,000) we see much more similarity in responses across the three income groups. However, we do still see, as expected, that the middle-income group, who faces this rate on their marginal earnings, are slightly less favorable towards the highest (thirty percent) tax rate on this income than the other groups.

With regard to the higher rate of income taxation (£50,000 to £150,000), here we see, as expected, that the high-income group has very distinct preferences from the other two groups, being much less supportive of fifty and sixty percent rates and much more supportive of twenty and thirty percent rates (which would mean a real-world tax cut for them). By contrast low and middle-income groups, neither of whom face this tax rate, have extremely similar preferences to one another.

Finally, when we turn to the additional rate on incomes above £150,000, the groups' preferences largely merge with one another. Indeed, it is the richest group who, if anything, seem to have the most progressive tax preferences, being less supportive of the thirty percent rate and more supportive of the sixty percent rate, compared to the other groups.

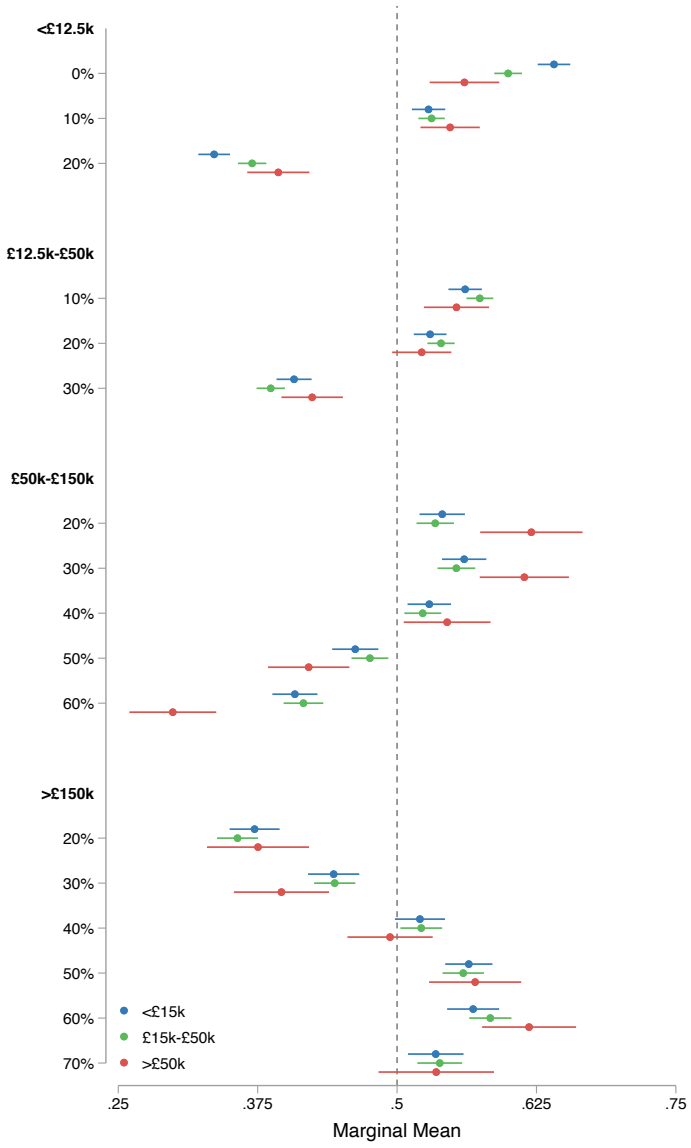
In sum, the conjoint experiment provides strong supportive evidence for Hypothesis One and our argument that citizens respond rationally and discontinuously to tax thresholds. Importantly, we find not

Figure 1: Income Tax Schedule Preferences in the UK



only that lower-income people like high rates of taxation on the incomes of the rich, but also that richer individuals are less concerned about low (or zero) tax rates on very low incomes. Moreover, middle-income individuals are distinctly less supportive of higher tax rates on their income than are the other two groups. Preferences match direct tax exposure rather sharply when it comes to the British tax system.

Figure 2: Marginal Means by Personal Gross Income Group



Study 2: Tax Exposure and the Trump Tax Bill

We now turn to contextual tax exposure, namely the interaction of local geography and tax deductions, which allows us to test Hypothesis Two. American taxpayers, when they pay their annual federal income tax, have long been used to deducting from their taxable income both mortgage interest on their main residential property and state and local taxes (the latter often also tied to property values). This means that attitudes towards federal taxation policy are conditioned by local property values (which increase the benefits of both the mortgage interest deduction and local property tax deduction) and by state-level income taxes.

How does this local variation in tax exposure alter attitudes towards the preservation of these tax deductions? We explore these questions using the 2018 Cooperative Congressional Election Study (CCES) with more than 45,000 respondents from the United States. The CCES 2018 offers an array of questions over specific tax policies introduced or proposed by the Trump administration. The Trump tax bill of 2017, which first affected taxable incomes in fiscal year 2018, made a number of important changes to the personal federal income tax. In particular, it altered tax brackets and the deductibility of various items. In the former case it lowered the marginal tax rate paid at most tax brackets, including lowering the top personal income tax rate from 39.6% to 37% (kicking in at an income of $500,000 for sole earners and $600,000 for joint filers). Rates were also lowered in many lower brackets.

However, this was in part offset by the removal of a number of tax deductions, which had *de facto* reduced federal income taxes for many middle and upper-middle income earners. In particular, two major deductions were targeted—the home mortgage interest deduction and the state and local taxes deduction. The former was reduced from mortgage debt of $1 million to $750,000 and removed from most home equity loans. In the latter case, deductions of state and local taxes were capped at $10,000. In their place a larger standard deduction was introduced (doubled to around $25,000). In general, those people who owned houses in expensive states and localities were the main losers—expensive houses were doubly hit through limits on mortgage interest deduction and the deductibility of property taxes. Similarly impacted were people who lived in states with high state or local income taxation. Typically, places with expensive housing are also the same as those with higher subnational income taxation so these negative impacts reinforced one another.

As our dependent variables, we draw on a series of preferences over tax policies asked by the CCES, which focused on these particularly salient shifts to federal income tax deductions. Each question begins with the prompt "Congress considered many changes in tax law over the past two years. Do you support or oppose each of the following?" We examine two particular follow-up prompts. First: "Reduce the mortgage interest deduction. Allow people to deduct the interest on no more than $500,000 of mortgage debt. The

previous limit was $1 million."[3] Second: "Limit the amount of state and local taxes that can be deducted to $10,000 (previously there was no limit)." In both cases we use a binary outcome measure that takes the value of one if the respondent supports the mentioned change in tax laws.

How can we connect our theory about tax exposure to this data? For Hypothesis Two we expect local context to drive behavior. In particular, homeowners in expensive locations should be most negatively inclined towards limiting the deduction of mortgage interest. Living in places with expensive housing should also reduce support for limiting state and local tax deductions since property taxes rise with house prices and are either paid directly by homeowners or indirectly—as part of their rent—by renters.[4] Finally, the level of local and state taxes ought to drive behaviour. In places with higher subnational taxes, there should be less support for limiting their deduction.[5]

As independent variables we use three key measures of individual material resources: income, wealth, and average house prices in the respondent's zip-code. As our measure of income, we use self-reported household income, which is defined on a sixteen-point scale from under $10,000 to over $500,000. As our measure of wealth, we use a binary indicator for whether the respondent is a homeowner. Finally, leveraging that CCES gives information on the respondent's zip-code of residence, we calculate zip-code level average house prices for 2018 using data drawn from the real estate prediction website Zillow's estimates of typical home values. Their ZHVI index provides the typical value in a five digit zip code of houses between the 35th and 65th percentile of cost (seasonally adjusted).

In our analysis, we also include the respondent's age; education (binary variables indicating whether the respondent graduated from a high school, 2-year degree, 4-degree, a post-graduate program or attended some college), gender, a 5-point ideology placement increasing in identifying with being very conservative, a 4-point Trump approval score increasing in disapproving Trump. For ease of interpretation all of our estimations use linear probability models (logit models produce extremely similar results). Depending on the specification, we employ sample weights, state fixed effects, county fixed effects, and standard errors clustered by states.

Mortgage Tax Deduction

We begin by examining respondents' attitudes to the change in mortgage tax deductions. The results in Table 2 indicate that higher house prices in the respondents' local zip-code are negatively associated, especially

[3]It is important to note that the House bill did have this $500,000 limit. However in the final tax bill passed after reconciliation this was raised to $750,000. Hence the CCES question does not reflect accurately the final tax bill.

[4]One might hypothesize that the effect of property prices on support for limiting local tax deductions would be higher for homeowners, who see their property tax bill annually. However, in most cases this is paid as part of their total mortgage rather than separately, so they may differ less from renters than might be initially expected.

[5]Since the CCES is a single survey we do not have the variation in political control necessary to test partisan expectations tax exposure argument of Hypothesis Three.

Table 2: Support for Capping Mortgage Tax Deductibility at $500,000

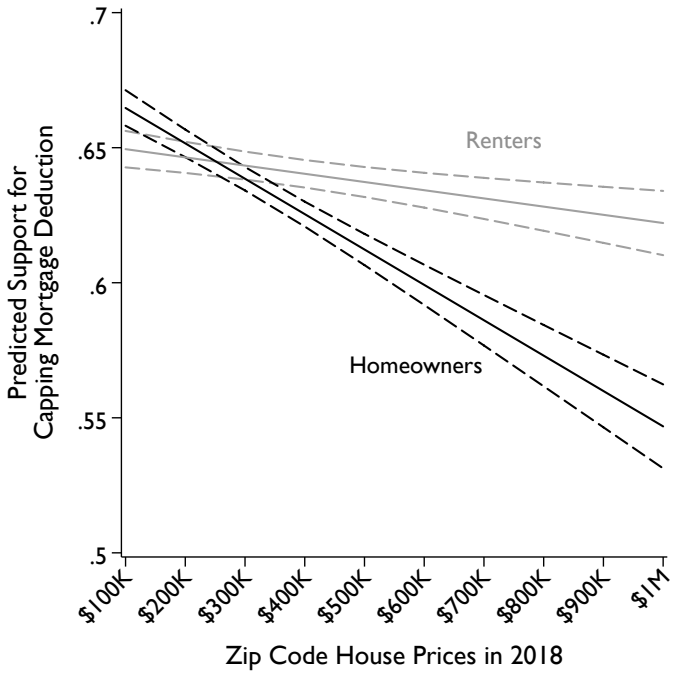
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
House Prices	-0.01***	-0.01***	-0.01***	-0.01***	-0.00***	-0.00	-0.01**	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Homeowner	-0.00	0.03***	0.01	-0.00	0.03***	0.01	-0.00	0.02*	0.02
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Homeowner X Prices		-0.01***	-0.01***		-0.01***	-0.01***		-0.01***	-0.01**
		(0.00)	(0.00)		(0.00)	(0.00)		(0.00)	(0.00)
HH Income	-0.01***	-0.01***	-0.01***	-0.01***	-0.01***	-0.01***	-0.01***	-0.01***	-0.01***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Age	0.00	0.00	0.00*	0.00	0.00	0.00*	0.00*	0.00*	0.00***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Ideology	0.01***	0.01***	0.01***	0.01***	0.01***	0.01***	0.01***	0.01***	0.01***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Trump Approval	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Female	0.03***	0.03***	0.03**	0.03***	0.03***	0.03**	0.03***	0.03***	0.03***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Children	0.03***	0.03***	0.03**	0.03***	0.03***	0.03**	0.02***	0.03***	0.03**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
High School	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.03
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)
Some College	-0.04***	-0.04***	-0.03*	-0.04***	-0.04***	-0.03*	-0.05**	-0.05**	-0.05*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
2-year Degree	-0.04*	-0.04**	-0.04*	-0.03*	-0.04*	-0.04*	-0.04	-0.04	-0.04
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
4-year Degree	-0.04**	-0.04**	-0.03	-0.04**	-0.05***	-0.03*	-0.05**	-0.05**	-0.04
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)
Postgrad	-0.03*	-0.03*	-0.02	-0.04*	-0.04*	-0.03	-0.04*	-0.04*	-0.03
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.03)
Constant	0.61***	0.60***	0.59***	0.62***	0.61***	0.59***	0.61***	0.59***	0.59***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)
N	26082	26082	26082	26082	26082	26082	26040	26040	26040
Weights	No	No	Yes	No	No	Yes	No	No	Yes
State Dummies	No	No	No	Yes	Yes	Yes	No	No	No
County Dummies	No	No	No	No	No	No	Yes	Yes	Yes

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Standard errors in parentheses.

among homeowners, with support for capping mortgage tax deductibility at $500,000. Models 1, 4 and 7 examine only the direct relationship between local house prices and support for the policy, whereas Models 2 and 3, 5 and 6, and 8 and 9 include the interaction of local house prices and whether the respondent is a homeowner. In Models 1, 4 and 7 we find a negative effect of the estimated house prices on preferences for mortgage tax deductibility limitations. When we interact homeownership with estimated house prices in the other models, we find that homeowners whose estimated house prices are higher are more likely to negatively respond to a policy that aims to cap mortgage tax deductibility.

Importantly, these results are robust to sample weights (Models 3, 6, and 9), state-level dummies (Models 4-6) and county-level dummies (Models 7-9). The latter models suggest that our results are not being driven by opposition to Trump and his tax policies in wealthier states or counties but that zip-codes with higher

Figure 3: Local House Prices and Support for Capping Mortgage Deductibility



house prices relative to their broader location are the locus of opposition to the policy.

Figure 3, drawn from Model 5, provides a graphical representations of these patterns. The predicted relationship between estimated zip-code level house prices and support for capping mortgage deductibility for homeowners and non-homeowners reveals that a doubling of house prices from $500,000 to $1,000,000 is associated with a decrease of 7 percentage points in support for cutting mortgage deductibility, but with a decrease of just 1 percentage point for renters. While there are no significant differences in preferences for homeowners and renters where predicted house prices are very low, these two groups' preferences diverge significantly when we look at those respondents who live in places with expensive houses, precisely those people directly affected by the policy.

State and Local Tax Deductions

We now turn to investigating the effect of local tax policies on support for the part of the Trump tax bill that limited state and local tax deductions to $10,000. For this analysis, we use data on local taxes obtained from the American Community Survey. This data set contains average property taxes paid per owner-occupied home and average effective property tax rates across counties in the United States between 2010 and 2014. We operationalize the property tax burden on individuals in two distinct ways. *County average tax paid* measures the average annual real estate tax payments per owner-occupied home in the respondent's county. We enter this variable both on its own and as an interaction with individual homeownership. *Predicted tax* calculates the respondents' predicted real estate tax payment between 2010 and 2014 by multiplying the ZIP-code level house prices and county level effective average tax rate. This variable is not interacted but instead takes the value zero if the respondent is not a homeowner, since renters cannot deduct local property taxes from their federal taxes as they don't pay them directly.

Table 3 investigates the effect of *County average tax paid* on the support for capping state and local tax deductibility at $10,000. We find that neither average county taxes nor homeownership have a direct relationship to support for local tax deductibility; however, these variables' interaction effect is significant and negative. Figure 4 shows this relationship more clearly. In counties where the burden of average real estate tax is low, homeowners and renters have similar predicted support for eliminating the state and local deduction. In high-burden counties, however, homeowners are much less likely support the removal of the deduction. For example, in places where the average real estate tax is around $10,000 per year, homeowners are predicted to support this policy with 35 percent probability, whereas renters' support is around 48 percent.

Table 4 replicates this analysis by using *Predicted tax* as the main independent variable. Once again, we see a similar relationship. Respondents with higher predicted local tax burdens and high household incomes are less likely to support capping state and local tax deductibility than those with lower burdens and lower household incomes. These results are robust to the inclusion of state and country dummies, demonstrating that differences in tax exposure even within quite disaggregated geographic units are important in shaping policy attitudes. All in all, the results from Study 2 support our second hypothesis that the local tax environment shapes individuals' tax exposure and preferences.

Table 3: Support for Capping State and Local Tax Deductibility: County Average Payments

	(1)	(2)	(3)	(4)	(5)	(6)
County av. tax paid	-0.004	-0.004	-0.006*	-0.004	0.000	0.000
	(0.003)	(0.003)	(0.003)	(0.003)	(.)	(.)
Homeowner	0.008	-0.001	0.006	-0.003	0.004	-0.004
	(0.011)	(0.015)	(0.010)	(0.015)	(0.009)	(0.013)
Homeowner X County av. tax paid	-0.013***	-0.011*	-0.014***	-0.011*	-0.012***	-0.010**
	(0.003)	(0.005)	(0.003)	(0.005)	(0.003)	(0.004)
HH Income	-0.008***	-0.008***	-0.007***	-0.008***	-0.007***	-0.008***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Age	-0.001***	-0.001***	-0.001***	-0.001**	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Ideology	0.017***	0.011**	0.016***	0.010**	0.016***	0.011***
	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)	(0.002)
Trump Approval	0.062***	0.065***	0.061***	0.064***	0.062***	0.065***
	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)	(0.003)
Female	0.020***	0.018**	0.019***	0.017**	0.020***	0.018**
	(0.005)	(0.006)	(0.005)	(0.006)	(0.005)	(0.006)
Children	0.016*	0.015	0.015*	0.014	0.014*	0.015*
	(0.007)	(0.010)	(0.007)	(0.010)	(0.006)	(0.008)
High School	-0.001	0.009	-0.003	0.008	-0.008	0.005
	(0.015)	(0.025)	(0.014)	(0.025)	(0.014)	(0.018)
Some College	-0.035*	-0.025	-0.034*	-0.023	-0.039**	-0.022
	(0.013)	(0.022)	(0.013)	(0.022)	(0.014)	(0.018)
2-year Degree	-0.033*	-0.022	-0.031*	-0.020	-0.038*	-0.024
	(0.015)	(0.021)	(0.015)	(0.022)	(0.015)	(0.019)
4-year Degree	-0.058***	-0.053*	-0.057***	-0.052*	-0.062***	-0.053**
	(0.014)	(0.023)	(0.014)	(0.023)	(0.014)	(0.018)
Postgrad	-0.082***	-0.079**	-0.080***	-0.078**	-0.084***	-0.079***
	(0.014)	(0.026)	(0.014)	(0.025)	(0.015)	(0.019)
Constant	0.524***	0.525***	0.502***	0.535***	0.522***	0.514***
	(0.014)	(0.026)	(0.014)	(0.025)	(0.016)	(0.021)
N	49570	49570	49570	49570	49570	49570
Weights	No	Yes	No	Yes	No	Yes
State Dummies	No	No	Yes	Yes	No	No
County Dummies	No	No	No	No	Yes	Yes

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Standard errors in parentheses.

Figure 4: Average County Real Estate Taxes and Support for Capping State and Local Tax Deduction

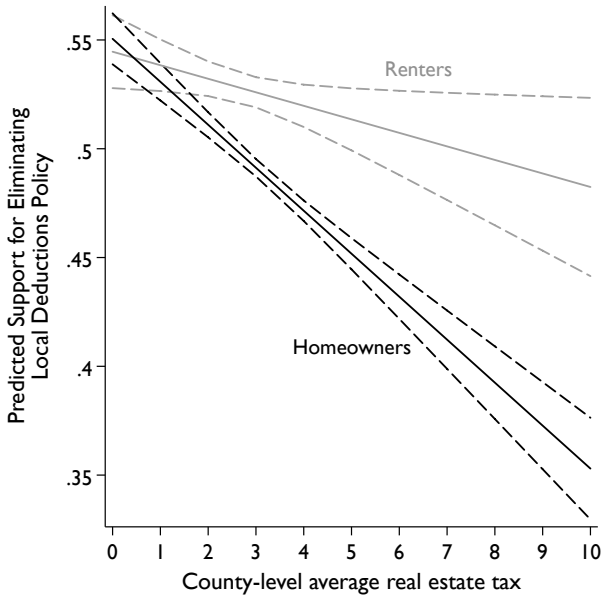


Table 4: Support for Capping State and Local Tax Deductibility: Estimated Tax Burden

	(1)	(2)	(3)	(4)	(5)	(6)
Predicted Tax	-0.009***	-0.011***	-0.009***	-0.010***	-0.007***	-0.009***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
HH Income	-0.007***	-0.008***	-0.007***	-0.008***	-0.007***	-0.008***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Age	-0.001***	-0.000	-0.001***	-0.000	-0.001***	-0.001*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Ideology	0.012***	0.005	0.011***	0.004	0.012***	0.007*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Trump Approval	0.054***	0.058***	0.054***	0.057***	0.053***	0.053***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Female	0.027***	0.021*	0.026***	0.020*	0.025***	0.017
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Children	0.016	0.013	0.015	0.013	0.012	0.016
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
High School	-0.008	-0.002	-0.009	-0.002	-0.019	-0.010
	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.02)
Some College	-0.036*	-0.024	-0.033	-0.021	-0.042*	-0.026
	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.02)
2-year Degree	-0.025	-0.023	-0.023	-0.021	-0.031	-0.031
	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.03)
4-year Degree	-0.066***	-0.060	-0.064**	-0.060	-0.072***	-0.070**
	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.02)
Postgrad	-0.100***	-0.083*	-0.097***	-0.081*	-0.103***	-0.095***
	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.03)
Constant	0.539***	0.550***	0.535***	0.580***	0.552***	0.556***
	(0.02)	(0.04)	(0.02)	(0.03)	(0.02)	(0.03)
N	26048	26048	26048	26048	26048	26048
Weights	No	Yes	No	Yes	No	Yes
State Dummies	No	No	Yes	Yes	No	No
County Dummies	No	No	No	No	Yes	Yes

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Standard errors in parentheses.

Study 3: Tax Preferences in 30 Democracies

In our final study, we examine cross-national evidence drawn from the International Social Survey Program (ISSP). In a number of waves this survey asked a series of questions about preferred tax levels for different income groups. The advantage of the survey for our purposes is that it allows us, in a cross-national setting, to move beyond simple questions of 'more' of 'less' progressive taxation to preferences about taxing particular groups in what might be a non-linear fashion. Accordingly, we are able to break out the analysis by different income groups (examining the preferences of each decile) and by targeted tax preferences, enabling us to address Hypothesis One. Since the ISSP data includes thirty countries and covers the period 1985 to 2017 we are also able to exploit the wide variation in country-tax levels and the partisan context in which tax preferences are made, allowing us to test Hypothesis Two and Three.

Data and Methods

We rely on survey data from the Role of Government (III-V) and Social Inequality (I-II) modules of the ISSP coupled with macro-level contextual data. Our data set includes respondents aged 18 or above and covers the period 1985 to 2017 for the following 30 countries: Australia, Austria, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

To measure targeted tax preferences, we use a set of questions that asks "Generally, how would you describe taxes in [COUNTRY] today? (We mean all taxes together, including [wage deductions], [income tax], [taxes on goods and services] and all the rest.) Are taxes too high or low for people with high, middle, and low incomes?" Although these questions allow us to distinguish between support for taxing different parts of the income distribution, one inevitable drawback of the cross-national nature of the data is that the questions don't directly specify the income groups in question, which is likely to cause us to underestimate discontinuities in tax preferences. In particular, this may be an issue for 'taxing middle incomes', as research has consistently shown that many individuals at both the bottom and top of the income distribution think of themselves as being middle income. It is less of a problem for 'taxing high incomes', however, because only the rich think of themselves as high-income (Hvidberg, Kreiner and Stantcheva, 2020; Cansunar, 2021).

Inspired by measures of net support for government spending (Soroka and Wlezien, 2010), we use answers to these questions to estimate the net support for taxing people with low, middle, and high incomes. The variables are coded as '-1' if a respondent believes the taxation of a group is too high, '0' if she thinks it is a about right, and '1' if she thinks it is too low. Accordingly, when we average over many respondents, we

obtain estimates of the share of respondents who support higher taxes minus the share who support lower taxes; that is, estimates of net support for taxing people with different levels of income. Negative values reflect support for tax cuts and positive values support for tax increases.

Our main explanatory variable, income, is measured in country-year specific deciles based on equivalized household income. To create the variable, we first rank respondents according to their equivalized household income, which is calculated by dividing household income, measured in categories, by the square root of the number of household members. We then assign each respondent a value equal to the position in the survey's income distribution of the midpoint of their income category.[6] Finally, we use this variable to place respondents in the appropriate income decile.[7]

To test Hypothesis Two and Three, we need measures of top income tax rates and government partisanship. We measure top income tax rates as the top statutory income tax rate imposed by central and sub-central governments, using a combination of data from the OECD, Eurostat, the World Tax Database, Piketty, Saez and Stantcheva (2014), and national statistics agencies. Government partisanship is measured as the number of parliamentary seats held by left and right parties in government as a percentage of the total number of parliamentary seats held by the government (Armingeon et al., 2020).

In addition to the main variables of interest, our empirical models include a range of individual and contextual-level controls. To better isolate the effect of income, we include as individual-level covariates gender, age, a measure of educational attainment (below secondary, secondary, post-secondary), the employment status of respondents (employed, unemployed, not in the labor force, retired, or student), and two dummy variables for whether a respondent is a member of a union and/or is a public employee.

As contextual-level covariates, we include measures of the unemployment rate, real GDP growth, and the share of total pre-tax income received by the top ten percent, using data from AMECO, OECD, and the World Inequality Database. These variables account for the possibility that support for progressive taxation may also be tied to the risk of unemployment, economic crises, and economic inequality (Rehm, 2009; Barnes, 2015; Limberg, 2019; Rueda and Stegmueller, 2019).

To directly model the hierarchical structure of the data, we make use of multilevel models. Research on multilevel modelling emphasizes that in order to obtain unbiased standard errors one must include random effects for all relevant levels (Schmidt-Catran and Fairbrother, 2016). In our case, since respondents are nested within country-years nested within countries and years, this means that we need to account for clustering at the country-year, year, and country levels. But because our data set includes too few years

[6] For instance, if six percent of respondents were in the bottom income category in a country-year, these respondents would be assigned a value of three.

[7] In some countries and years, surveys do not ask about the number of household members; in these cases, we rank respondents based on unequivalized household income. In others, surveys ask about personal earnings rather than household income; in these cases, we rank respondents based on their placement in the personal earnings distribution.

to include random effects for years (we have data for fourteen years), we follow the recommendations of Schmidt-Catran and Fairbrother (2016) and include random effects for country-years and countries and fixed effects for years. Finally, following the recommendations of Enders and Tofighi (2007), we center all individual-level covariates by their country-year means, which similarly to our income variable, ensures that their effects are estimated solely from within country-year variation.

Unfortunately, some ISSP surveys do not include questions about union membership and employment sector (private or public), and between six and eight percent of respondents have not answered the questions about preferred tax rates. In order to avoid omitting full country-year observations when adding these covariates, and to minimize the bias that can arise as a result of non-random patterns of missingness (see King et al., 2001), we multiple impute (by chained equations) missing values on individual-level variables. We follow the recommendations of White, Royston and Wood (2011) and include *all* variables in the imputation model that are included in our analysis models as well as additional predictors of tax preferences.[8] These authors further recommend setting the number of imputations, m, equal to the percentage of missing cases. With 27 percent of missing cases, the public employee dummy is the variable with the highest degree of missingness in our main models; we prefer to error on the side of caution and set $m = 50$.[9]

Results

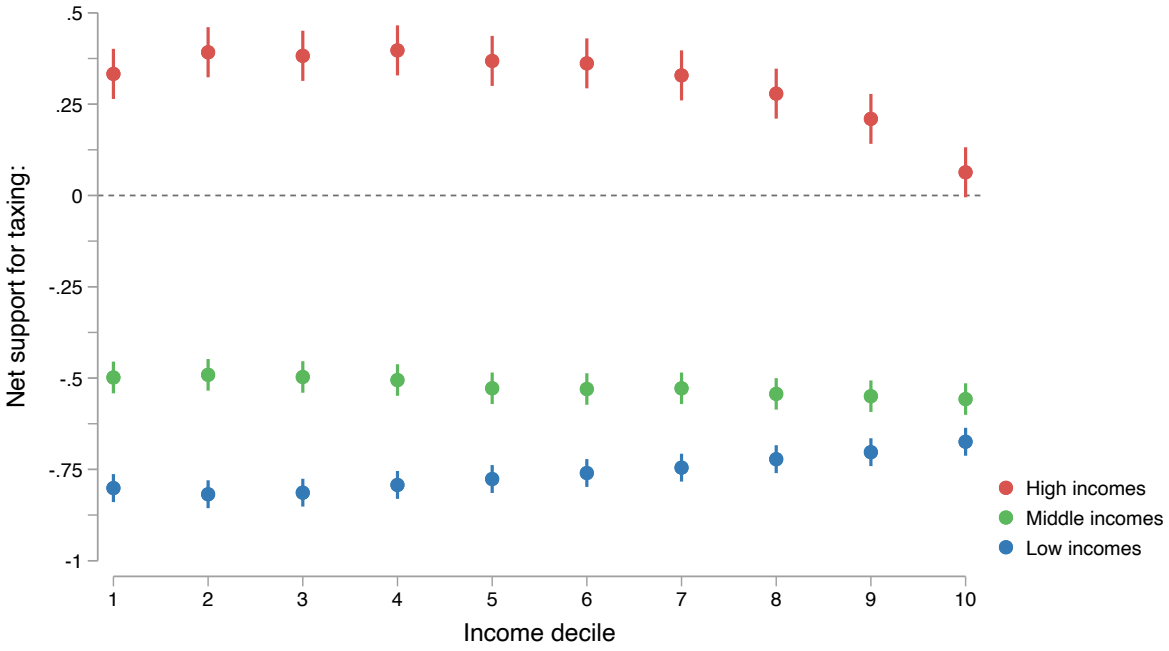
Figure 5 displays the direct effect of income (deciles) on net support for taxing people with high, middle, and low incomes. The figure shows that on average people prefer to increase taxes on high incomes and decrease taxes on low and middle incomes, with strongest support for lowering the tax burden of low-income individuals. Consistent with Hypothesis One, we also see variation across income deciles in net support for taxing different parts of the income distribution. Net support for taxing high incomes is almost constant across the bottom seven deciles, whereafter it declines significantly in a non-linear fashion. In the top income decile, net support is statistically indistinguishable from zero, meaning that the top income decile is the only income group that on average does not prefer to increase taxes on the rich. At the same time, the rich are not more supportive of cutting middle-class taxes than other deciles, and they are actually the group that expresses the weakest support for lowering the tax burden of the poor. It is therefore not the case that the rich are generally more opposed to taxes: their preferences depend on who the tax targets.

Whereas net support for taxing high incomes decreases non-linearly with income, net support for taxing middle incomes varies little across income deciles. There is slightly more support for lowering middle-income

[8]This includes interactions between income and all individual and contextual-level variables, which is achieved by performing the imputation separately by income group. Not doing so would bias the cross-level interactions that test hypotheses two and three toward zero.

[9]Union membership has second highest percentage of missing cases (14 percent); the remaining variables have between zero and eight percent of missing cases.

Figure 5: Net Support for Taxing High, Middle, and Low Incomes



Note: N = 90,275. The results are based on the estimates in Appendix Table A1 (models 1, 3, and 5)

taxes among people in the 5th to 10th income deciles, compared to the bottom four deciles, but the differences are substantively small. The lack of variation in net support for taxing middle incomes across income groups is unsurprising given the strong misperceptions about individuals' placement in the income distribution. As discussed, research has shown that both low and high-income individuals tend to believe that they belong closer to the middle of the income distribution than is actually the case (Cansunar, 2021; Hvidberg, Kreiner and Stantcheva, 2020), which undoubtedly biases any discontinuities in tax preferences. As we saw in Study 1, when we use much more specific questions about taxes on specific groups, tax preferences are indeed discontinuous around tax thresholds.

Support for lowering taxes on low incomes is strongest among individuals in the bottom three deciles, after which support for tax cuts weakens close to linearly with rising income. That net support for taxing low incomes plateaus at the bottom of the income distribution, rather than decreases non-linearly as predicted by the theory, may partly be explained by a floor effect, since net support is close to the boundary (negative one). Indeed, while more than eighty percent of respondents support lower tax rates for low-income individuals, only two percent prefer higher tax rates. Again, as we saw in Study 1, preferences over low-income taxation also exhibit a non-linear pattern when using very specific questions.

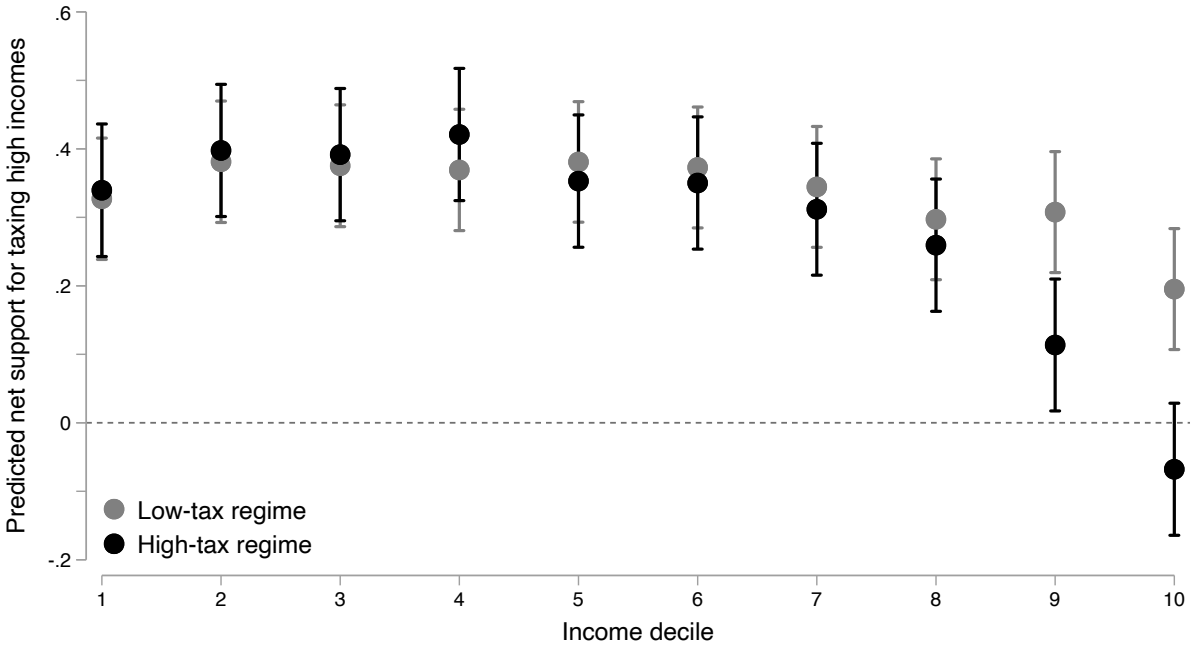
Conditional Effects of Top Income Tax Rates

To examine Hypothesis Two and Three, we next interact the income deciles with the top income tax rate and government partisanship. To ensure that any potential effects are not driven by unmodeled interactions with other macro variables, we also interact the income deciles with all of the macro-level covariates included in the models. Again, we calculate predicted levels of net support by income decile, and by tax regime and the partisan context, and display these in Figures 6-9.

Figure 6 shows the predicted level of net support for taxing people with high incomes for top statutory income tax rates equal to 33 and 60 percent, which are the 10th and 90th percentiles of the distribution of tax rates in our sample of countries and years. Consistent with Hypotheses Two, the figure shows that while the prevailing top tax rate does not at all affect the preferences of the bottom eighty percent of the income distribution, the top two deciles are much less supportive of higher taxes on high incomes when the top tax rate is high. The top decile goes from expressing support for higher taxes on the rich when top tax rates are low to supporting the status quo tax level when tax rates are high. This is a considerable shift in preferences, equivalent to about .33 standard deviations.

One may wonder whether this pattern is specific to support for taxing high incomes or whether it is

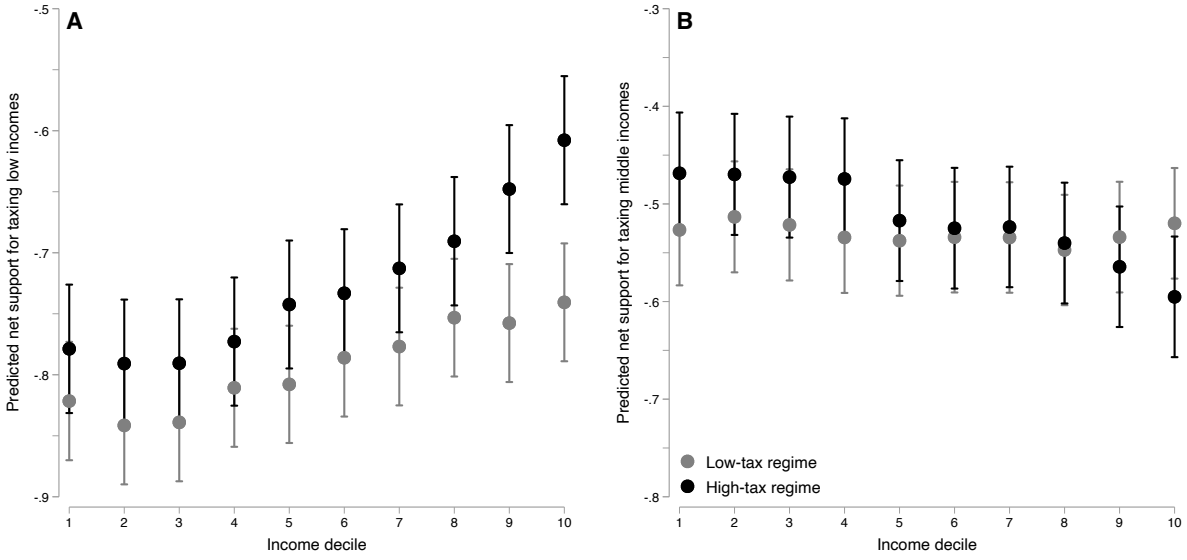
Figure 6: Net Support for Taxing High Incomes, Conditional on the Top Statutory Income Tax Rate



Note: N = 90,275. The results are based on the estimates in Appendix Table A1 (model 2)

generally the case that the rich are more opposed to higher taxes when their own tax rate is high. We examine this question in Figure 7, which plots predicted levels of net support for taxing low and middle incomes. Panel A shows that whereas the preferences of the poor and the middle are unaffected by the top tax rate, the rich are significantly less supportive of lowering taxes on low-income individuals when the top statutory tax rate is high. To be clear, this is the opposite pattern of that observed for high-income taxes. And panel B shows that although the rich are slightly less supportive of taxing middle incomes when the top statutory tax rate is high, the confidence intervals overlap and the differences are substantively small. Thus, it is not the case that the rich are generally more opposed to taxes when their own tax rate is high. These results corroborate Hypothesis Two suggesting that the rich consider their personal tax exposure when forming preferences over changes to the tax code.

Figure 7: Net Support for Taxing Low (A) and Middle Incomes (B), Conditional on the Top Income Tax Rate



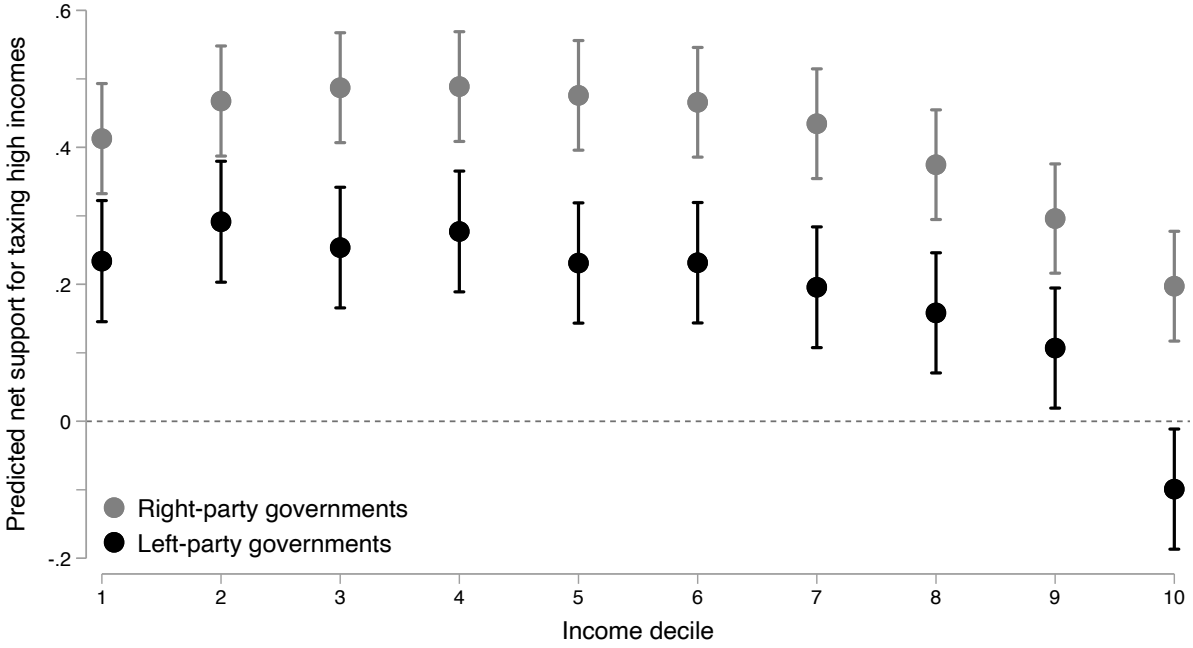
Note: N = 90,275. The results are based on the estimates in Appendix Table A1 (models 4 and 6)

Conditional Effects of Government Partisanship

Turning to our examination of Hypothesis Three, we show in Figure 8 the predicted levels of net support for taxing high incomes for different partisan contexts. The figure shows that the top income decile responds most strongly to who is in government; the character of their support even changes. When right parties are in government, the rich are slightly supportive of higher taxes on high-income individuals. By contrast, they support cutting their taxes when left parties are in government. This shift in preferences is substantial and

correspond to roughly .37 standard deviations. Thus, when left parties are in government, and the rich face a greater tax exposure, the rich express strong resistance to higher taxes on their own income. When right parties are in government, in contrast, the rich are less concerned about paying higher taxes. They may even exploit the opportunity to express support for paying higher taxes in order to reap the social rewards of appearing altruistic; yet, since right parties are protagonists of upper-class interests, and rarely increase the tax burden of the rich, such talk is cheap. The lower income groups, on the other hand, have good reasons to be more supportive of taxing the rich during right-party rule: they may be concerned that right-parties are going to lower taxes on the rich, and thereby decrease funding of the welfare state that supports their livelihood, and they therefore express greater resistance toward such policies when right parties are in power.

Figure 8: Net Support for Taxing High Incomes, Conditional on Partisanship of the Government

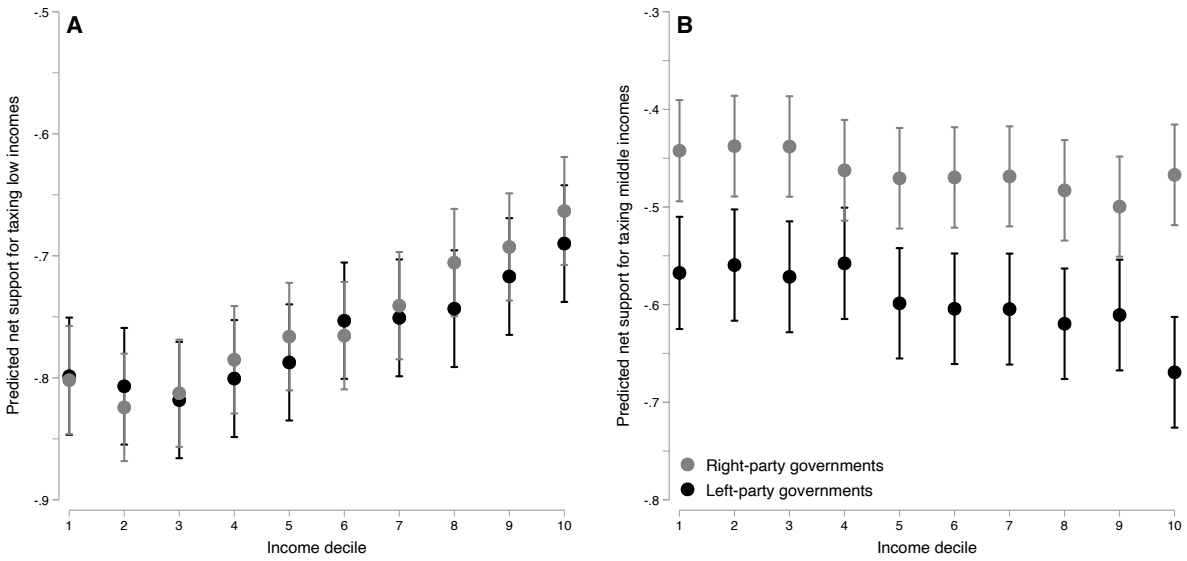


Note: N = 90,275. The results are based on the estimates in Appendix Table A1 (model 2)

As for top tax rates, the pattern observed in figure 8 is not simply explained by the rich generally favoring tax cuts when left parties are in power. Panel A of figure 9 shows that the partisanship of the government does not condition net support for taxing individuals with low incomes. This is a strong indication that the conditional effect of partisanship that we observe in figure 8 captures how the rich respond to changes in their personal tax exposure, rather than some general effect of how tax preferences are shaped by who holds the keys to the government office.

But panel B of Figure 9 shows that similar to net support for taxing high-income individuals all income

Figure 9: Net Support for Taxing Low (A) and Middle Incomes (B), Conditional on Partisanship of the Government



Note: N = 90,275. The results are based on the estimates in Appendix Table A1 (models 4 and 6)

groups shift their preferences for taxing middle-income individuals downwards during left-party rule with the top income decile having the strongest response (the size of the effect for the top decile, however, is only about two-thirds of that of taxing high-income individuals). This similarity in responses between taxing the high and middle-income individuals depending on the partisan context may be explained by two related factors. First, again it is likely that some people in the top decile believe that they are middle-income, leading to support for lower middle-income taxes. Second, some high-income individuals may be unsure about whether they qualify as middle or high-income so as an insurance that left-party governments are not going to raise their taxes, they express greater resistance toward taxing individuals with middle incomes during left-party rule. In both cases, the reason that the response of high-income individuals is stronger than that of middle-income individuals is that the marginal costs of paying higher taxes is higher for higher-income individuals regardless of whether or not they are able to correctly place themselves in the income distribution.[10] All in all, the results for partisanship are therefore consistent with the theory and they corroborate Hypothesis Three.

[10]For aspirational and self-interested reasons, the lower and middle classes may also be concerned that left parties are going raise middle-income taxes and therefore express stronger support for lower taxes.

Conclusion

The last decades' primary political debate has been the tax policy proposals by parties with different ideologies that aimed to alter fiscal institutions' size and structure. Most of the work that studies the political causes and consequences of taxation focuses on the tax revenues' size. However, it is the magnitude and direction of net transfers between income-groups—in other words, the structure of the tax policies—that intensify class conflict. Nevertheless, political economists have had very little to say about different groups' preferences over the fiscal system structure. This article has presented a novel theoretical contribution that addresses this gap. We argued that, in contrast to simple models of taxation used in the political economy literature, and similarly basic survey items used to elicit empirical support for these theoretical predictions, tax reforms tend to hit specific groups in various ways. Citizens' support for tax reforms depends on whether they expect to be winners or losers from such policy changes. If people expect to pay more in taxes, they will oppose these proposals.

Building on a theory of "tax exposure", we argued that individuals' preferences over concise tax policies, rather than vague formulations that often refer to "kitchen-sink" policies that aim to reduce inequalities between the rich and the poor, are better indicators of their actual preferences over tax policy proposals. We tested our theory using three different data sets. First, we conducted an original conjoint experiment in the UK, showing that preferences over tax rates correspond very closely to tax bracket thresholds. Second, we examined preferences over actual tax policies using the Combined Congressional Election Survey conducted in the United States in 2018. We showed that homeowners in places with high house prices or high local taxes are against removing tax deductions. Finally, relying on the ISSP data, we find that individuals' preferences over tax policies depend on both those taxes' expected effects on their disposable income and expectations on how any policy change may play out given the national politics. In particular, we found that high-income individuals are much less supportive about raising taxes on the rich where left-wing parties are in government, and existing tax rates are already high.

The theory developed in this article has significant implications. Our findings suggest that tax policies' expected effects on citizens' material self-interest shape their tax preferences. Our results also show that widely used vague survey questions on preferences over redistribution might induce measurement error. We posit that questions about concise tax policies help individuals calculate the expected benefits or losses from taxation and answer these questions to reflect their true preferences.

References

Ambrose, Brent W and Maxence Valentin. 2024. "Federal Tax Deductions and the Demand for Local Public Goods." *Review of Economics and Statistics* pp. 1–39.

Ansell, Ben W. 2007. "University challenges: Explaining institutional change in higher education." *World Pol.* 60:189.

Ansell, Ben W and David J Samuels. 2014. *Inequality and democratization.* Cambridge University Press.

Armingeon, Klaus, Virginia Wenger, Fiona Wiedemeier, Christian Isler, Laura Knöpfel, David Weisstanner and Sarah Engler. 2020. Comparative Political Data Set 1960-2018. Technical report Institute of Political Science, University of Berne Bern: .

Ballard-Rosa, Cameron, Lucy Martin and Kenneth Scheve. 2017. "The structure of American income tax policy preferences." *The Journal of Politics* 79(1):1–16.

Barnes, Lucy. 2015. "The size and shape of government: Preferences over redistributive tax policy." *Socio-Economic Review* 13(1):55–78.

Baturo, Alexander and Julia Gray. 2009. "Flatliners: Ideology and rational learning in the adoption of the flat tax." *European Journal of Political Research* 48(1):130–159.

Beramendi, Pablo and Philipp Rehm. 2016. "Who gives, who gains? Progressivity and Preferences." *Comparative Political Studies* 49(4):529–563.

Berens, Sarah and Margarita Gelepithis. 2019. "Welfare state structure, inequality, and public attitudes towards progressive taxation." *Socio-Economic Review* 17(4):823–850.

Bobzien, Licia. 2020. "Polarized perceptions, polarized preferences? Understanding the relationship between inequality and preferences for redistribution." *Journal of European Social Policy* 30(2):206–224.

Boix, Carles. 2003. *Democracy and redistribution.* Cambridge University Press.

Cansunar, Asli. 2021. "Who is High-Income, Anyway?: Social Comparison, Subjective Group-Identification, and Preferences over Progressive Taxation." *Journal of Politics* 83(4):1–30.

Cavaillé, Charlotte. 2023. *Fair enough?: support for redistribution in the age of inequality.* Cambridge University Press.

De Donder, Philippe and Jean Hindriks. 2003. "The politics of progressive income taxation with incentive effects." *Journal of Public Economics* 87(11):2491–2505.

De Mesquita, Bruce Bueno, Alastair Smith, Randolph M Siverson and James D Morrow. 2005. *The logic of political survival*. MIT press.

Enders, Craig K. and Davood Tofighi. 2007. "Centering Predictor Variables in Cross-Sectional Multilevel Models: A New Look at an Old Issue." *Psychological Methods* 12(2):121–138.

Guillaud, Elvire. 2013. "Preferences for redistribution: an empirical analysis over 33 countries." *The Journal of Economic Inequality* 11:57–78.

Hvidberg, Kristoffer B., Claus Kreiner and Stefanie Stantcheva. 2020. "Social Position and Fairness Views." *NBER Working Papers* 0(28099).

Iversen, Torben and David Soskice. 2001. "An asset theory of social policy preferences." *American Political Science Review* 95(4):875–894.

Jacobs, Nicholas F. 2021. "Economic Sectionalism, Executive-Centered Partisanship, and the Politics of the State and Local Tax Deduction." *Political Science Quarterly* 136(2):311–338.

Kenworthy, Lane and Jonas Pontusson. 2005. "Rising inequality and the politics of redistribution in affluent countries." *Perspectives on Politics* 3(3):449–471.

King, Gary, James Honaker, Anne Joseph and Kenneth Scheve. 2001. "Analyzing Incomplete Political Science Data: An Alternative Algorithm for Multiple Imputation." *American Political Science Review* 95(1):49–69.

Limberg, Julian. 2019. "What's fair? Preferences for tax progressivity in the wake of the financial crisis." *Journal of Public Policy* pp. 1–23.

Lü, Xiaobo and Kenneth Scheve. 2016. "Self-centered inequity aversion and the mass politics of taxation." *Comparative Political Studies* 49(14):1965–1997.

Mares, Isabela and Didac Queralt. 2015. "The non-democratic origins of income taxation." *Comparative Political Studies* 48(14):1974–2009.

Meltzer, A.H. and S.F. Richard. 1981. "A rational theory of the size of government." *The Journal of Political Economy* 89(5):914–927.

Moene, Karle Ove and Michael Wallerstein. 2001. "Inequality, social insurance, and redistribution." *American Political Science Review* 95(4):859–874.

Persson, Torsten and Guido Tabellini. 2002. *Political economics: explaining economic policy*. MIT press.

Piketty, Thomas, Emmanuel Saez and Stefanie Stantcheva. 2014. "Optimal taxation of top labor incomes: A tale of three elasticities." *American Economic Journal: Economic Policy* 6(1 B):230–271.

Rehm, Philip. 2009. "Risks and redistribution." *Comparative Political Studies* 42(7):855–881.

Rehm, Philipp. 2011. "Social Policy by Popular Demand." *World Politics* 63(2):271–299.

Rehm, Philipp, Jacob Hacker and Mark Schlesinger. 2012. "Insecure Alliances: Risk, Inequality, and Support for the Welfare State." *American Political Science Review* 106(2):386–406.

Rueda, David and Daniel Stegmueller. 2019. *Who Wants What?: Redistribution Preferences in Comparative Perspective*. Cambridge University Press.

Schmidt-Catran, Alexander W. and Malcolm Fairbrother. 2016. "The random effects in multilevel models: Getting them wrong and getting them right." *European Sociological Review* 32(1):23–38.

Shayo, Moses. 2009. "A model of social identity with an application to political economy: Nation, class, and redistribution." *American Political science review* pp. 147–174.

Soroka, Stuart N. and Christopher Wlezien. 2010. *Degrees of Democracy. Politics, Public Opinion, and Policy*. New York: Cambridge University Press.

Stiers, Dieter, Marc Hooghe, Silke Goubin and Michael S Lewis-Beck. 2022. "Support for progressive taxation: self-interest (rightly understood), ideology, and political sophistication." *Journal of European public policy* 29(4):550–567.

White, Ian R., Patrick Royston and Angela M. Wood. 2011. "Multiple imputation using chained equations: Issues and guidance for practice." *Statistics in Medicine* 30(4):377–399.

Appendix for "Tax Expoure and Political Preferences"

Table A1: Net Support for Taxing:

	(1)	(2)	(3)	(4)	(5)	(6)
	High incomes		Middle incomes		Low incomes	
Income decile=2	0.059***	-0.003	0.007	0.034	-0.017*	-0.075
	(0.012)	(0.116)	(0.009)	(0.087)	(0.007)	(0.071)
Income decile=3	0.050***	0.136	0.001	0.047	-0.013	-0.082
	(0.012)	(0.118)	(0.009)	(0.084)	(0.007)	(0.070)
Income decile=4	0.064***	-0.166	-0.007	-0.046	0.009	-0.011
	(0.012)	(0.117)	(0.009)	(0.087)	(0.007)	(0.072)
Income decile=5	0.035**	-0.036	-0.030***	0.075	0.025***	-0.004
	(0.012)	(0.119)	(0.009)	(0.085)	(0.007)	(0.070)
Income decile=6	0.029*	-0.139	-0.032***	0.128	0.041***	0.069
	(0.012)	(0.114)	(0.009)	(0.084)	(0.007)	(0.070)
Income decile=7	-0.004	-0.227	-0.030***	0.102	0.056***	0.034
	(0.012)	(0.117)	(0.009)	(0.085)	(0.007)	(0.072)
Income decile=8	-0.054***	-0.457***	-0.045***	0.134	0.079***	0.107
	(0.012)	(0.115)	(0.009)	(0.084)	(0.008)	(0.070)
Income decile=9	-0.123***	-0.153	-0.051***	0.046	0.098***	-0.088
	(0.012)	(0.114)	(0.009)	(0.083)	(0.008)	(0.070)
Income decile=10	-0.269***	-0.232*	-0.059***	0.202*	0.127***	0.050
	(0.013)	(0.116)	(0.009)	(0.084)	(0.008)	(0.071)
Female	0.019***	0.020***	-0.056***	-0.056***	-0.021***	-0.021***
	(0.006)	(0.006)	(0.004)	(0.004)	(0.003)	(0.003)
Age	0.003***	0.003***	0.001***	0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Union member	0.102***	0.103***	0.016**	0.016**	-0.015***	-0.015***
	(0.008)	(0.008)	(0.006)	(0.006)	(0.005)	(0.005)
Public employee	0.078***	0.078***	0.017***	0.017***	0.003	0.003
	(0.007)	(0.007)	(0.005)	(0.005)	(0.004)	(0.004)
Education: Secondary	-0.020**	-0.020**	0.008	0.009	0.043***	0.045***
	(0.007)	(0.007)	(0.005)	(0.005)	(0.004)	(0.004)
Education: Tertiary	-0.056***	-0.061***	0.055***	0.055***	0.124***	0.126***
	(0.008)	(0.008)	(0.006)	(0.006)	(0.005)	(0.005)
Employment status: Employed	0.044***	0.045***	-0.012	-0.011	-0.008	-0.010
	(0.009)	(0.009)	(0.006)	(0.006)	(0.005)	(0.005)
Employment status: Unemployed	0.097***	0.101***	0.041***	0.043***	-0.023**	-0.029**
	(0.015)	(0.015)	(0.011)	(0.011)	(0.009)	(0.009)
Employment status: Retired	0.045***	0.050***	0.037***	0.040***	0.006	0.005
	(0.011)	(0.011)	(0.008)	(0.008)	(0.006)	(0.006)
Employment status: Student	0.032	0.035*	0.048***	0.048***	0.040***	0.039***
	(0.017)	(0.017)	(0.012)	(0.012)	(0.010)	(0.010)
Government partisanship	0.112***	0.089***	0.066***	0.063***	0.005	-0.002
	(0.022)	(0.025)	(0.014)	(0.017)	(0.011)	(0.013)
Unemployment rate	0.007	0.011	-0.011**	-0.013**	-0.009**	-0.007
	(0.006)	(0.007)	(0.004)	(0.004)	(0.003)	(0.003)
Real GDP growth	0.002	-0.005	0.005	0.011	-0.004	-0.006
	(0.010)	(0.011)	(0.006)	(0.007)	(0.005)	(0.006)
Top 10 percent income share	1.256*	0.546	0.021	0.078	0.309	0.274
	(0.612)	(0.638)	(0.391)	(0.414)	(0.319)	(0.337)
Top Statutory Income Tax Rate	-0.002	0.000	0.001	0.002	0.002*	0.002
	(0.002)	(0.002)	(0.001)	(0.002)	(0.001)	(0.001)
Income d=2 X partisanship		-0.001		-0.002		-0.007
		(0.018)		(0.013)		(0.011)
Income d=3 X partisanship		0.027		0.004		0.004
		(0.018)		(0.013)		(0.011)
Income d=4 X partisanship		0.016		-0.015		0.009
		(0.017)		(0.013)		(0.011)
Income d=5 X partisanship		0.033		0.001		0.012
		(0.018)		(0.013)		(0.011)
Income d=6 X partisanship		0.028		0.005		-0.005
		(0.018)		(0.013)		(0.011)
Income d=7 X partisanship		0.030		0.005		0.007
		(0.017)		(0.013)		(0.011)
Income d=8 X partisanship		0.019		0.006		0.020
		(0.017)		(0.013)		(0.011)
Income d=9 X partisanship		0.005		-0.007		0.014
		(0.017)		(0.013)		(0.010)
Income d=10 X partisanship		0.059***		0.039**		0.015
		(0.017)		(0.013)		(0.011)
Income d=2 X top tax rate		0.000		-0.001		0.000
		(0.001)		(0.001)		(0.001)
Income d=3 X top tax rate		0.000		-0.000		0.000
		(0.001)		(0.001)		(0.001)
Income d=4 X top tax rate		0.001		0.000		-0.000
		(0.001)		(0.001)		(0.001)
Income d=5 X top tax rate		-0.001		-0.001		0.001
		(0.001)		(0.001)		(0.001)
Income d=6 X top tax rate		-0.001		-0.002*		0.000
		(0.001)		(0.001)		(0.001)
Income d=7 X top tax rate		-0.002		-0.002*		0.001
		(0.001)		(0.001)		(0.001)
Income d=8 X top tax rate		-0.002		-0.002*		0.001
		(0.001)		(0.001)		(0.001)
Income d=9 X top tax rate		-0.008***		-0.003***		0.002***
		(0.001)		(0.001)		(0.001)
Income d=10 X top tax rate		-0.010***		-0.005***		0.003***
		(0.001)		(0.001)		(0.001)
Constant	-0.042	0.077	-0.508**	-0.603***	-0.995***	-0.956***
	(0.244)	(0.256)	(0.156)	(0.166)	(0.127)	(0.135)
Variance components:						
Country	0.029***	0.029***	0.011***	0.011***	0.009***	0.009***
	(0.005)	(0.005)	(0.002)	(0.002)	(0.001)	(0.001)
Country-year	0.009***	0.010***	0.004***	0.004***	0.002***	0.002***
	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Residuals	0.571***	0.568***	0.301***	0.300***	0.214***	0.213***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
N	90275	90275	90275	90275	90275	90275
N of country-years	81	81	81	81	81	81
N of countries	30	30	30	30	30	30
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Macro-level controls X income deciles	No	Yes	No	Yes	No	Yes

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$