

How Does the Tax and Benefit Structure of the Welfare State Shape Popular Support for Redistribution?

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Abstract

Why do people support redistribution more in some countries than in others? Two main institutional accounts can be said to compete: Is it universal *benefits* to all that makes people support redistribution (Korpi & Palme, 1998)? Or is it universal *tax contributions* by all (Rothstein, 1998)? Empirical support is not established for either account, particularly when tested against individual-level data. The lack of empirical support can be attributed to three reasons. First, previous research has focused on only one side of the coin – either taxes or benefits, although taxes and benefits can condition each other's effects. Second, the pivotal role of *the middle class* – underlying causal mechanism of the two theories – has not been adequately examined. Third, previous measures of universalism (the overall dispersion of benefits or taxes) neither take the levels of benefits/taxes (whether they are 10 or 30 percent of income) nor how the levels vary across income groups (low, middle, and high income) into account. In a critical synthesis of two main institutional theories, I aim to assess to what extent the tax and benefit structure of the welfare state shapes individuals' preference for redistribution. I argue that higher benefits to the middle class and higher taxes on low incomes are conducive to a broad support for redistribution. For 15 industrialized democracies, I use multi-level models for statistical estimation, drawing on data from Luxembourg Income Study and International Social Survey Programme.

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Citizen's preferences for more or for less redistribution have been studied extensively because it largely explains cross-country variation of governments' welfare state efforts. In the context of growing income inequality and challenges to welfare state legitimacy, research on preferences for redistribution deserves renewed attention. Given the harmful effects that have been associated with increased income inequality (Wilkinson & Pickett, 2010), a further role of the welfare state becomes critical. Economists of income studies propose a more progressive tax to finance welfare state efforts (Atkinson, 2015). However, under what conditions redistribution is made politically sustainable remains a subject of continuous scholarly debate. Brooks and Manza (2007) explained cross-national difference in terms of popular support for redistribution based on the concept of 'embedded preference'. That is, individuals' redistributive preferences are embedded in the historical and institutional contexts of the society rather than individuals' temporal economic situation. As for the institutional contexts that induce popular support for redistribution, two main institutional theories are can be said to compete (Korpi & Palme, 1998; Rothstein, 1998).

Although both theories agree that a *universalist* welfare state is conducive to popularly supported redistribution, their emphasis lies in the different aspects of the welfare state. Whereas Korpi and Palme (1998) highlight the importance of universal *provision of the benefits*, Rothstein (1998) emphasizes universal *contribution of the costs*. However, for these two widely referred theories, empirical support is far from being established, especially when tested against individual-level data. Whereas Rothstein's universal contribution account lacks empirical support either from macro- or micro-level data analysis, Korpi and Palme's universal benefit account has been supported by macro-level data analysis until recently challenged by Brady and Bostic's study (2015). Using individual-level data, Brady and Bostic found no effects of universal benefit distribution on popular support of redistribution and

called for future studies to explain why. Responding to this call, I revisit the two institutional theories.

Previous research on institutional accounts for redistribution preference is theoretically incomplete and empirically inadequately examined. Theoretical merits of two incomplete accounts will be fully scrutinized by addressing three specific issues: one-sided analysis for the two aspects of the welfare state – either taxes or benefits, inadequate investigation of the underlying causal mechanism – conditional preferences of *the middle class*, and problematic measures of universalism (the overall dispersion of benefits or taxes). My aim is to synthesize theoretical merits of two institutional accounts with an improved analytic framework and measures. I analyze both tax and benefit sides of the welfare state in an integrated framework. Using this novel approach, I examine not only to what extent each theory explains redistribution preferences, but more importantly, how taxes and benefits influence each other. With an income strata-sensitive analysis, I aim to specify the pivotal role of the middle class to generate a broad support of redistribution. Methodologically, I assess more precise country-level institutional effects by using multilevel models that take into account individual-level variables.

Theoretical framework and hypothesis

The lack of empirical support for existing institutional theories can be attributed to three major reasons. First, although taxes and benefits comprise two aspects of the welfare state, previous research has focused on only one side of the coin: either taxes or benefits. These two aspects need to be examined simultaneously because they can condition each other's effects. Individuals' preferences for redistribution can be influenced not only by how much they benefit from the welfare state but also by how much they pay for it. On the one

hand, the effects of tax burdens can be more significant if benefits are not accompanied by tax contributions, like the case of US middle-income strata. On the other hand, the effects of benefits can be constrained if substantial tax burdens are required. A recent survey on the basic income program in Finland presents a good example of this sort. As the required tax increase for the benefit is provided, the support for the program drops drastically regardless individual's political affiliations (Research at Kela, 2016, 10). To account for the full-fledged incentive structure of the welfare state, it is necessary to analyze both cost and benefit sides of redistribution in an integrated analytic framework.

Second, two theories' underlying causal mechanism have not been examined adequately because previous research interprets universalism in the welfare state as equally distributed benefits and taxes among the *general* population. In both theories, the causal link lies in the pivotal role of *the middle class* (or the well-to-do). Whereas both low- and high-income groups' preferences are assumed to be given, middle class' preferences are not: low-income individuals support redistribution because they are the main beneficiaries of redistribution, whereas high-income people oppose redistribution because their tax burdens outweigh benefits disproportionately. However, the middle class' preferences can be formative, depending on the way how benefits and taxes are distributed among different income groups.

As for the benefit side, Korpi and Palme (1998) claimed that the economic interests of the middle class are the key casual factor to generate a broad cross-class support of redistribution. Universal distribution of benefits is important because it helps middle class' interests aligned with the poor's interests in favor of redistribution. As for the tax side, Rothstein (1998) argued that support for redistribution is contingent on the terms of cost-sharing because it affects the normative ground (legitimacy) of the welfare state. Building on Levi (1991)'s concept of 'contingent consent', Rothstein claimed that universal distribution of

tax burdens is important because it helps the well-to-do consent to redistribution. If the welfare state ensures ‘others’ to share the costs equally (with less progressive or a flat-rate tax), those net-contributors more likely consent to redistribution. In both theories, universal distribution of taxes and benefits is a critical institutional condition to generate a broad support for redistribution because it helps the middle class support for redistribution. Combined support of middle- and low-income strata can ensure the large majority of the population in favor of redistribution. However, this middle class’ contingent preferences neither has been measured nor tested in previous research. By employing an income strata-sensitive analysis, I expect to assess the middle class’ *conditional* support for redistribution.

Third, previous research suffers from a critical measurement issue, in which institutional universalism is measured by the degree of overall dispersion of benefits or taxes. In Brady and Bostic (2015, 274), universalism is measured by homogeneity of social transfer amount among the population (i.e. the coefficient of variation in the amount of transfers received). One crucial limit of this measure is that it does not take into account the levels of benefits or taxes. That is, whether they comprise 10 or 30 percent of income. In the literature on collective action problem, a high ‘stake’ has been studied as a key condition for individuals to join collective action proactively (Olson, 1971). The tax and the benefit structure of the welfare state sets the institutional terms of the collective action for redistribution. The stake in redistribution corresponds to the levels of tax burdens and benefits.

On the benefit side, support of redistribution can be higher if benefits comprise a substantial share of income. For instance, an equally distributed benefit level is 10 percent of income, individual’s stake in redistribution should be lower than it is 30 percent of income. On the tax side, Rothstein (1998, 147) suggests that less (or no) progressivity in tax can be a measure of universalism. However, the level of tax rate can be more important than the degree

of homogeneity in tax rates. For instance, a 40 percent and a 10 percent flat-rate tax are equal in terms of progressivity. Yet, with a 10 percent tax rate, the net contributors would care much less for redistribution, and this low flat-rate tax cannot generate meaningful redistribution.

In a critical synthesis of the existing theories, I hypothesize that higher benefits to the middle class are conducive to a broad support for redistribution. But, the effects of benefits to the middle class should be larger (smaller) if taxes on low incomes are higher (lower). This is because a high-tax rate on low incomes helps middle- and high-income people support for redistribution as low income people are not perceived to be dependent due to their substantial contribution to the welfare state.

As noted earlier, the gist of universal benefit account is whether or not the welfare state provides the middle class with substantial benefits, rather than whether it distributes benefits equally among the population. Likewise, the crux of universal cost-sharing account is whether the welfare state ensures low-income individuals to share tax burdens as well or leaves them as sheer beneficiaries relying on middle (and high) income people's contribution. Middle class' contingent support of redistribution is at the core of causal mechanism to explain why people support for redistribution more in some countries than in others.

Of these two institutional conditions, I expect that benefits to the middle class influence the middle class' preference for redistribution more significantly than do taxes on low incomes. That is, whether others pay as much as I do (normative legitimacy) matters, but less importantly than whether I receive benefits (economic interests). In this sense, I expect that the effects of taxes on low incomes alone are insignificant or weak, but they influence the effects of benefits to the middle class.

Data and methods

This project takes a country comparative approach using quantitative methods. Its main advantage is to produce a generalizable theory across countries. The cases are 15 industrialized democracies with substantially diverse tax and benefit structures. These include Australia, Canada, Denmark, Finland, France, Germany, Ireland, Japan, the Netherlands, Norway, Spain, Sweden, Switzerland, the UK and the US. Four reasons for this selection: First, the theories that I will test were initially articulated for these countries. Second, the merit of studying redistribution preference largely comes from the expectation that redistributive outcomes to a large extent reflect preferences in the population. This can be assumed in established democracies (Huber & Stephens, 2012). Third, my interest lies in the institutional effects of the welfare state in forming individuals' preferences, which requires a certain degree of the welfare state to exist. Fourth, these 15 countries are the maximum scope of analysis for which data are available.

Since redistribution preferences are influenced by individual-level characteristics as well as country-level institutional contexts (Brooks & Manza, 2007), I use multi-level models that include variables at both levels, while nesting individual respondents within countries. The main advantage of the models is that the country-level effects can be estimated more efficiently than do macro-level models (Gelman & Hill, 2006). Multi-level models have been used in recent studies of a similar analytic purpose and similar number of country cases as my research design (Sjöberg, 2010; Brady & Bostic, 2015). Using multi-level logistic regression analysis, I estimate the effects of taxes and benefits on individuals' redistribution preferences.

I estimate random intercept models that can be expressed as two equations (Raudenbush & Bryk, 2002; Brady & Bostic, 2015). First, the log odds of the dependent variable ($\log[p_{ij}/1-p_{ij}]$) for the i th individual in the j th country are represented by eta (η_{ij}) and is a function of country intercepts (β_{0j}) and a set of fixed individual-level characteristics (βX_{ij}):

$$\log[p_{ij}/1-p_{ij}] = \eta_{ij} = \beta_{0j} + \beta X_{ij}$$

Second, each country intercept (β_{0j}) is estimated as a function of a general intercept (γ_{00}) and a set of country-level variables ($\gamma_0 C_j$) and an error term (u_{0j}):

$$\beta_{0j} = \gamma_{00} + \gamma_0 C_j + u_{0j}$$

I construct institutional variables on taxes and benefits using household income survey data from Luxembourg Income Study Database (LIS). For multi-level estimation, I incorporate these variables into the International Social Survey Programme's Role of Government Module 2006 Datasets (ISSP), which contain data on individual preferences for redistribution.

For institutional variables, I measure benefits and taxes among different income groups, using data from the LIS. The main independent variables are the level of benefits to middle income strata and the level of tax rates on low incomes. The former is measured by the averaged share of disposable household income from social transfers among middle income households. The latter is measured by the averaged tax burden among low income households. Among tax items, I choose personal income tax because it is the most visible and relevant to individual redistribution preferences.

The three income groups are measured by relative income measures in terms of pre-tax and pre-transfer income. The middle-income strata is measured by those households that earn an income between 75 and 200 percent of the national median household income; the low-income strata by an income below 75 percent of the median income; the high-income strata by an income above 200 percent of the median income (Atkinson & Brandolini, 2013; Byun, 2016).

As for individual-level variables that have been associated with redistribution preferences, I draw on the ISSP. These include gender, age, education-level, marital status, employment sector, employment status, and union membership. For gender, male is coded as 1 and female as 0. For education-level, higher values indicate higher level of completed

degree. For marital status, married or living with spouse is coded as 1 and others as 0. For employment sector, public sector is coded as 1, private sector as 2, self-employed as 3. For employment status full-time and part-time employed is coded as 1, less than part-time employed as 2, labor market non-participants as 3. For union membership, member is coded as 1, non-members as 0.

For main dependent variables, I draw on data from the ISSP. I measure responses to the survey question that “do you think it should or should not be the government's responsibility to reduce income differences between the rich and the poor.” To compare the outcome with Brady and Bostic (2015)'s I reconstruct the four-scale response into a binary response: 1 for agree and 0 for disagree. This question has been widely used in previous research and most directly measures preference for redistribution (Cusack et al., 2006).

Results

Table 1 presents log likelihood coefficients for tax and benefit distribution of the welfare state and for individual-level variables. The benefit level to the middle class has significant and positive effects on popular support for redistribution, whereas the tax level on low incomes has significant and negative effects. One unit of increase in the benefits (1 percentage point increase in the transfer share among middle income households) results in increase in the likelihood of popular support for redistribution (Model 1). This is in line with my hypothesis.

<Table 1 about here>

Figure 1 is a scatter plot that shows country-level association between the benefit level to the middle class and the level of popular support for redistribution (the share of people who

support redistribution among the population). A clear positive relationship is reaffirmed at country-level comparison.

<Figure 1 about here>

In contrast, one percentage point increase in the tax burden among low income household results in decline of likelihood in popular support for redistribution (Model 2). This is not expected from my hypothesis. It may be related to the fact that higher taxes on low incomes are strongly associated with higher taxes on middle incomes. It supports tax revolt argument that people do not like higher taxes in general. Figure 2 plots country-level association between the tax level to low incomes and popular support for redistribution. Neither a positive nor a negative relationship is apparent.

<Figure 2 about here>

In Model 4, with the interaction term of the benefits to the middle class and the taxes on low incomes, positive effects of the benefits to the middle class become stronger and larger, whereas negative effects of taxes on low incomes disappear. One unit of increase in the benefit level accompanied by one unit of increase in the tax level results in a larger increase in the likelihood of popular support for redistribution. Although statistically insignificant, one unit of increase in the tax level on low incomes accompanied by one unit of increase in the benefits to the middle class results in an increase of likelihood of popular support for redistribution. This suggests that as hypothesized higher taxes on low incomes can make people more likely to support redistribution when they are examined together with the benefits for the middle class.

For individual-level characteristics, consistent with past research, the elderly, female, less educated, married, employed, public sector employed, and union member people are more likely to support redistribution, whereas the younger, male, highly educated, unemployed private sector employed, and non-union member people are less likely to support redistribution.

Conclusion

The results I report in this paper are tentative, which are based on preliminary analyses and remain underdeveloped. It is necessary to conduct further analyses to tell a more accurate relationship between the tax and the benefit structure of the welfare state and redistribution preferences. Although it is cautious at this stage, my findings suggest that as benefits to the middle class are higher, people are more likely to support redistribution. Thus, the main reason why previous research failed to find empirical evidence for the universal benefit account (Brady & Bostic, 2015) can be attributed to an improper interpretation of universalism and measure. If universalism is not understood as overall dispersion of benefits among the population, but as inclusion of the middle class as substantial beneficiaries of the welfare state, universalist benefit distribution helps people support redistribution. In addition, my findings suggest that the role of the middle class preference is critical to explain overall support for redistribution. As the welfare state (its distribution of taxes and benefits) is structured to benefit the middle class, popular support for redistribution becomes more likely. And the effects of benefits to the middle class can be higher if the effects of taxes on low incomes are considered simultaneously.

As for the effects of taxes on low incomes, I found that the effects are conditional, depending on how it is combined with the benefits to the middle class. The negative effects

disappear and turn into positive with the interaction term of the benefits to the middle class and the tax rates on low incomes.

I expect three potential contributions to the field of institutional analysis of the welfare state and redistributive politics. The first is my novel approach to analyze both tax and benefit distribution of the welfare state. To my best knowledge, no research has been done to relate both sides of the welfare state to redistribution preferences. This will add new knowledge to the study of redistribution preference, which demands further research on institutional contexts that shape individual preference for redistribution (Brooks & Menza, 2007). My research may also contribute to the welfare regime literature. Compared to the studies that distinguish the welfare regime broadly into three types—liberal, conservative and social democratic (Esping-Andersen, 1990; Larsen, 2007), I expect to further specify the sources of the regime effects.

The second contribution can come from my focus on the critical role of the middle class in generating a broad support of redistribution. Although its pivotal role is suggested in both institutional theories (Korpi & Palme, 1998; Rothstein, 1998), it remains untested. By assessing the middle class's stake in the welfare state as the main explanatory variable, I attempted to specify the causal link between the institutional structure of the welfare state and a broad support for redistribution. My analysis on the middle class's conditional preference speaks to broader literature on redistributive politics. Middle class's pivotal role in determining redistributive outcomes has been studied extensively (Lipset, 1981; Meltzer & Richard, 1981; Iversen & Soskice, 2006, 2015; Lupu & Pontusson, 2011; Mau, 2015). My findings may contribute to the literature by examining largely understudied institutional factors that affect middle class' contingent support for redistribution.

Third, I expect to contribute to the debate in search of the welfare state that is fiscally and politically sustainable. In specific, Rothstein (1998) suggested that a less progressive tax

produces a larger redistribution because it is more popularly supported. In contrast, economists of income studies propose a more progressive tax to achieve the same goal (Piketty, 2013; Atkinson, 2015). The economists have attempted to propose an optimal progressivity of income tax to achieve equity without losing efficiency, which is a linearly progressive tax schedule with the top marginal tax rate of 67 percent (Mirrlees, 1971; Romer, 1974; Roberts, 1977). Yet, it remains debatable which solution is not only economically optimal but also politically sustainable. My research might be able to contribute to this debate, suggesting a third option—progressive taxation starting with a high-tax rate for the low-income, which can finance more universal benefits with less challenge to the welfare state’s normative legitimacy.

Tables and Figures

Table 1. Multilevel Logit Models of Individual Redistribution Preferences: Log coefficients for tax and benefit distribution of the welfare state and for individual-level variables.

	(1)	(2)	(3)	(4)
Benefits to the middle class	0.042* (0.02)		0.044** (0.02)	0.075** (0.02)
Taxes on low incomes		-0.029* (0.01)	-0.030** (0.01)	0.049 (0.04)
Middle class benefit*low income tax				-0.004* (0.00)
Age	0.005** (0.00)	0.005** (0.00)	0.005** (0.00)	0.005** (0.00)
Gender	-0.298** (0.04)	-0.298** (0.04)	-0.298** (0.04)	-0.298** (0.04)
Education level	-0.260** (0.01)	-0.261** (0.01)	-0.260** (0.01)	-0.260** (0.01)
Marital status	0.070** (0.01)	0.070** (0.01)	0.070** (0.01)	0.070** (0.01)
Employment status	0.085** (0.02)	0.086** (0.02)	0.086** (0.02)	0.086** (0.02)
Employment sector	-0.244** (0.03)	-0.244** (0.03)	-0.244** (0.03)	-0.244** (0.03)
Union membership	0.407** (0.05)	0.417** (0.05)	0.413** (0.05)	0.416** (0.05)
_cons	0.825* (0.36)	1.801** (0.19)	1.023** (0.32)	0.451 (0.37)
N	15659	15659	15659	15659

The numbers in parentheses are standard errors.

*p<.05;**p<.01.

Figure 1. Benefits to the middle class and general support for redistribution

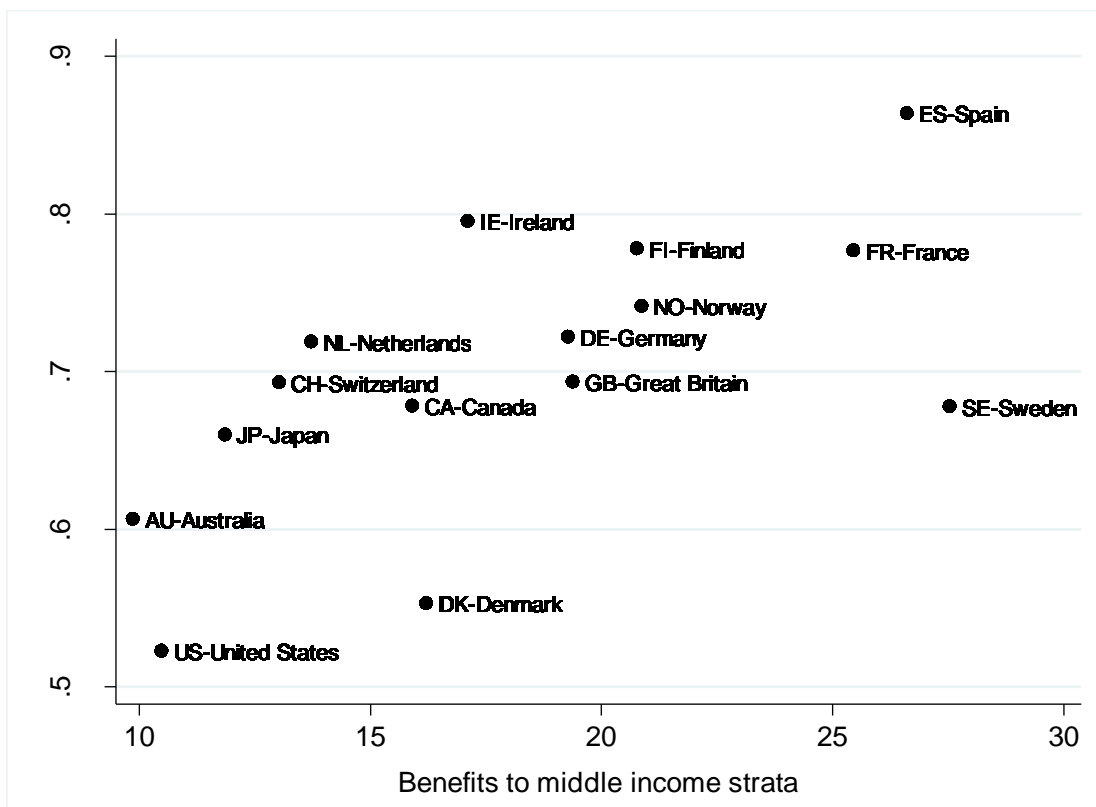
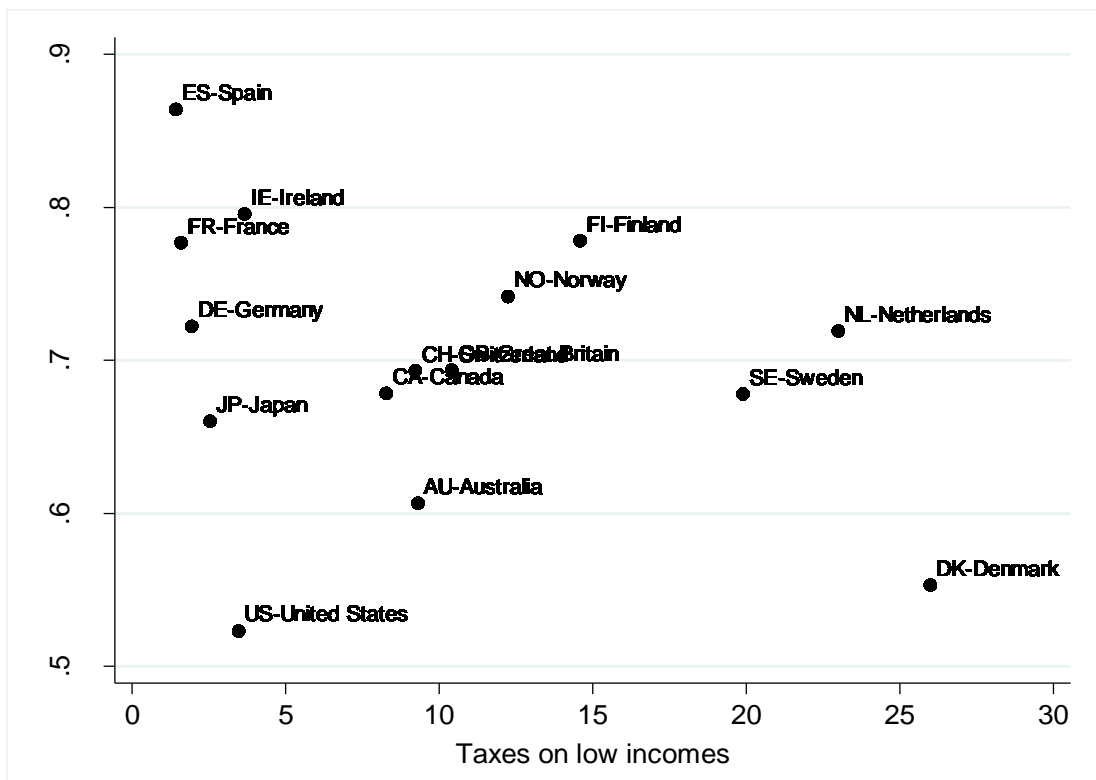


Figure 2. Taxes on low incomes and general support for redistribution



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