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Abstract:
Private alternatives to the public provision of welfare state services and benefits have expanded in almost all OECD countries over the past decades. In this paper, we study how this change affects patterns of public support for the welfare state and, in the long term, the political sustainability of solidaristic social policies. Our core argument is that the availability of private alternatives has fundamentally altered the political dynamic of social policy-making. The political support from affluent middle and upper middle classes for a continued involvement of government in social policy-making depends on allowing more income-related stratification of benefits and services within the public system or in expanding private alternatives to an even greater extent. We test our theoretical claim empirically with survey data from the ISSP for 20 OECD countries.
1. Introduction

Previous work on the future of the welfare state in advanced post-industrial democracies has emphasized their high degree of institutional stability and resilience to change. Pierson (1994, 2001, 2011) argue that welfare state policies and institutions once established create strong “lock-in” effects: Beneficiary groups have strong material incentives to maintain (or even expand) existing policies, and beyond material incentives, institutions shape normative expectations of individuals vis-à-vis the role of the state (what Pierson 1993 called “interpretive effects”). More recently, Brooks and Manza (2006, 2007) – echoing Pierson – argue that “welfare states persist” (Brooks/Manza 2007) because there is continued strong support for welfare state services and benefits among the mass public, which deters policy-makers from engaging in retrenchment (see also Rehm 2012).

In contrast to these accounts, there is mounting evidence that welfare state retrenchment does in fact happen (Allan/Scruggs 2004; Korpi/Palme 2003). More importantly for the purpose of this paper, many welfare states in the Western world have gone through a period of privatization in the provision of welfare state services and benefits (for an overview, see Gingrich 2011), e.g. by expanding the role of private independent schools -- even in a paradigmatic social democratic country like Sweden (Klitgaard 2007) -- choice and competition in the delivery of health care services (Gingrich 2011), and the role of private capital-funded schemes in pension regimes (Naczyk/Palier 2013). In this paper, we are less interested in explaining why privatization came about, but in analyzing the consequences of this development for the future of the welfare state. The pertinent literature on public opinion and the welfare state (following Brooks and Manza 2006, 2007) underestimates the potential contribution of privatization in undermining support for the kind of large-scale, undifferentiated public welfare system that emerged in most OECD countries after the Second World War. Once private alternatives became available, many in the middle and upper-middle classes chose to opt out, undermining the broad-based support for a solidaristic system. The response by governments has been to increasingly mimic private markets in the public system by introducing more choice, competition, and income-graduation. Broad support for the welfare state may increasingly depend on making it more unequal.

A case in point is the evolution of the Danish primary educational system. Since a major 1993 reform created a fully unitary public school system, Danish primary schools have integrated classrooms with no tracking or ability grouping, and for most of the postwar period it has been almost entirely public. Budgetary transfers across school districts ensure that districts with higher “problem loads” -- due to special education needs, many foreign language children, and low socioeconomic demographics -- receive additional funding. Teacher salaries and working hours are set through national-level bargaining, and there is no significant differentiation between schools. Curriculum and testing standards are likewise determined centrally. This uniformity has produced a pronounced compression of measured skills. In the 2000 OECD adult literacy tests, the average scores of Danes in the bottom five percentile ranked second from the top among 18 advanced OECD countries (after Sweden), but only a disappointing third from the bottom in the top five percentile (OECD/HRDC 2000).

By any measure, the Danish educational system is thus one of equality and centralization. But this is changing. In 2000 12.1 percent of all school children aged 7-16 went to private schools; today the number is 16.5 percent – a 36 percent increase (Okonomi og indenrigsministeriet 2014). Much of this increase is driven by demand from highly educated, upper-middle class parents who are keen to give their children a head start in an increasingly knowledge-intensive economy. Many get what they are looking for. A ranked list of schools published by the Danish Ministry of Education in 2011 showed that 9 of the 10 top performing schools -- measured by the difference between actual grades and expected grades based on parents’ socioeconomic background -- were private (Undervisningsministeriet 2011).
It should be noted that private schools get 71 percent of their funding from the state, that they are subject to the same standards as public schools, and that teacher salaries and working hours must conform to national collective agreements. Nevertheless, private schools infuse a distinct class-differentiated component into the system. They are allowed to screen applicants and avoid children who have special needs or may require extra resources, the challenging application process is favoring high-resource parents, and the portion of the educational costs covered by parents (29 percent) is unambiguously regressive. Unsurprisingly, therefore, the political left, including the Social Democratic Party, has been critical of private schools. But they are up against powerful forces. Private schools are popular among MPs, and Prime Minister Helle Thorning-Schmidt sends her own children to private schools. So does a top candidate to replace her as chair of the Social Democrats, Minister of Employment, Mette Frederiksen.

Frederiksen has in the past criticized parents (in 2005, before she had school-age children herself) for sending their children to private schools because it undermined the public system (reprinted by Trykkefrihed.dk 2010). And she has a point because sorting into good private and poor public schools will leave fewer stronger students and resource-rich parents in the public system. Yet, sorting does not only occur only across the public-private divide, but also within the public system. The American and, increasingly, the British public systems are notorious for class-based sorting by neighborhoods (Gingrich/Ansell 2014), and while stark geographical differentiation is less likely in the centralized, fiscally redistributive Danish system, the free school choice introduced in 2005 is likely to increase public school competition and given resource-rich parents an advantage. Differentiation also occurs inside the schools themselves. The German public system is (in)famous for using early tracking, and while such tracking is unlikely to return to the Danish system, differentiation has increasingly migrated into the classroom. In the latest school reform (to take effect in the fall of 2014) the school-day has been extended in part to allow more attention to the needs of individual students. While this is branded as recognition of individual diversity, few doubt that a primary aim is to allow academically inclined students to excel. These are students who are disproportionately from better-educated and relatively well-off families. An increasing number of electives, even before the latest reform, is also a source of de facto segmentation of students.

The Danish school example, we believe, illustrates what we see as general trends in all advanced democracies, and across several public service areas (and some forms of public insurance). Most public goods, broadly conceived, were provided through the state during the first two decades after the Second World War, and such provision often enjoyed broad cross-class support -- at least in areas of services and social insurance where the middle and upper-middle classes were major consumers (policies designed for redistributive purposes, such as cash-transfers, are different). This has changed dramatically in the past three decades, in part as a result of maturing private service industries, and in part as a result of deliberate policies of deregulation and privatization. There are still areas such as unemployment insurance where there are no good private alternatives, but in most big spending categories -- education, pensions, childcare, and healthcare -- there are now well-developed private options.

Indeed, much of the public debate since the 1990s has centered on the introduction of private alternatives to public provision, and how to reform public provision to make it more competitive with private options. Initially championed by the right, the language of choice now infuses party platforms across the political spectrum. Private alternatives are widely accepted as healthy competition for public providers, and “modernizing” the welfare state is increasingly seen as a way to accommodate rising demand from middle and upper-middle income classes, without adding new fiscal burdens.
A key question is therefore how the growing availability of private alternatives affects the politics of public spending. Surprisingly, there are no models that answer this question head-on. In recent years the standard Meltzer-Richard-Roemer (MRR) model has been amended to include insurance, and this helps us understand why the welfare state enjoyed such a broad base of support in the first three postwar decades (Estevez-Abe 2001; Rehm 2012). Yet, these models all assume that social insurance is publicly provided. Indeed, in one of the most sophisticated and cited articles on the topic by Moene and Wallerstein (2001), the authors highlight the importance of this omission:

“Theoretically, the largest gap in our approach is the absence of a private alternative to publicly provided insurance. … The politics of the demand for insurance when there is a private alternative involves different considerations” (p. 871).

They could have added that the politics of spending is also different for a broad range of public services, notably education and health, where there are now often good private alternatives. Moreover, in response to private alternatives market mechanisms have been introduced into public provision, which alter the politics of such provision. We see policies to increase choice, to allow more income-graduated benefits, and to improve public sector productivity as powerfully driven by the increased competition from private providers.

The first implication of our argument is that the availability of private alternatives makes public provision, and taxation, more contested along class lines. While demand for many services, and much of the insurance, traditionally offered by the state is high in the middle and upper-middle classes, with the expansion of private alternatives the support for the class-blind distribution of public services have waned. In this context it is paradoxically only when the public system mimics the private by allowing more choice and income-graduation that it is possible to shore up support for the public system. The cross-class alliance that propelled the postwar welfare state may only be sustainable by undermining one of its hallmarks: egalitarianism. A second implication of our argument is therefore that private alternatives are likely trigger inequalizing reforms of the welfare state. A rich new literature has been documenting such reforms in a range of countries (Gingrich 2011).

The focus of this paper is the first implication, and we present and test a formal model of social policy preferences that shows the implications of adding a private alternative to a standard model of social policy preferences. We test the model on comparative public opinion data from the International Social Survey Programme’s 2006 module on the Role of Government. The data are linked to national-level indicators of benefit stratification and the private-public division using a multilevel regression setup that closely mirrors the formal model. Our results cover (up to) 20 OECD countries.

2. A model of public provision with private alternatives

In this section we formalize the intuition that preferences for public spending on social services and insurance are affected by the availability of good private alternatives, as well as by the quality and income-graduation of public provision. Strikingly, virtually all models of welfare state spending assumes (often implicitly) that every social service and insurance is publicly provided. That may have been a reasonable approximation in the first three decades after the war, but deregulation and privatization since the 1980s have changed that. Even when private alternatives are only a small share of total spending, the availability of an “outside option” affect the politics and structure of public provision, which in turn affects private demand.

The model is related to arguments about the feedback effects of the structure of social provision, which are usually credited to Esping-Andersen’s (1990) book, but comes in a variety of forms. More
specifically, in the second half of the book, Esping-Andersen argues that welfare state regimes will shape conflict patterns and cleavages in welfare states in distinct ways (ibid.: 227-229). Building on Esping-Andersen’s initial idea, scholars have been exploring the relationship between welfare state attitudes and institutions (Andreß/Heien 2001; Arts/Gelissen 2001; Bean/Papadakis 1998; Jakobsen 2010; Jaeger 2006, 2009; Svallfors 1997, 2004, 2010). In the early work on the impact of welfare states on attitudes, the general expectation was the attitudes would be commensurate with existing institutions (e.g. Arts/Gelissen 2001 and Svallfors 1997). Arts and Gelissen (2001: 287) in particular expected to find the highest degree of solidarity (related to support for government involvement in welfare state policies) in the Scandinavian countries and the lowest in the liberal states, with continental and Southern European welfare states somewhere in between.

Overall, however, the evidence is mixed: First, welfare state regimes (often operationalized in the form of simple dummy variables) account for less variation in preferences than other micro- or macro-level predictors. Second, and most importantly, the simple expectation of dominant “positive feedback effects” as expressed in the first generation of scholarship is not fully borne out in the data. Recent research by Jaeger (2009), for example, shows that support for the welfare state is highest in the so-called conservative welfare states, lowest in the liberal world and somewhere in between in the Scandinavian countries. Thus, on the one hand, the low level of support for the welfare state in the liberal states confirms the theoretical expectations put forward by Esping-Andersen (1990), Svallfors (1997) and Arts/Gelissen (2001), but the lower support in Scandinavian vs. continental European countries does not. Jaeger, for the most part, notes this discrepancy between empirical findings and theoretical expectations without explaining it. Our model helps fill this gap by taking into account the recent rise of private alternatives to public provision, and how this development affects popular attitudes on the role of government in welfare state regimes.

Our argument is related to one put forward by Korpi and Palme (1998). In an early contribution to the policy feedback literature they argue that “institutional structures affect the ways in which citizens come to define their interests and preferences” (ibid: 664). In particular, they expect that the “encompassing” welfare state model, which according to their definition combines basic security for everybody with earnings-related benefits, would bring together the interests of the low-income and better-off citizens. This in turn would establish a broad base of support for the public provision of benefits instead of private insurance. But where they see the structure of public benefits as an exogenous variable, we see it as a result of the growing availability of private alternatives, i.e. faced with popular demands for more differentiation from affluent middle classes, policy-makers react either by partly privatizing welfare state services and benefits or by making them more stratified. Universalistic benefits, which are so close to Esping-Andersen’s understanding of the Scandinavian model, have become difficult to sustain under the weight of the competition from private alternatives. This is consistent with Jaeger’s evidence that stratified welfare states tend to enjoy the broadest base of support.

2.1. Standard model of public provision

We start with a simple base-line model of government provision of a public service or public insurance. We assume individuals are maximizing the utility of after-tax income and a flat-rate benefit financed by a proportional tax, as in the canonical Meltzer-Richard-Romer (MRR) model:

\[
W_i = U[(1-t) \cdot y_i] + \alpha \cdot U(t \cdot \bar{y}),
\]
where $y_i$ is $i$’s income, $t$ is the tax rate, $\bar{y}$ is average income, and $t \cdot \bar{y}$ is the benefit (assuming a balanced budget). For now, we ignore efficiency of provision because it does not substantively affect the results. Unlike the standard MRR model, the government is not simply transferring income but offering a service or an insurance whose value is weighted by the parameter $\alpha (> 0)$.

We assume a concave utility function with standard properties: $U' > 0$ and $U'' < 0$. For public services and private consumption this implies declining marginal utility, and for public insurance it means that people are risk-averse. In the following we use a convenient log-function to represent such a utility function:

$$W_i = \ln[(1 - t) \cdot y_i] + \alpha \cdot \ln(t \cdot \bar{y}).$$

For insurance goods the log function implies that relative risk aversion (RRA) is equal to 1, which is a mild degree of risk-aversion. We discuss below what happens if risk-aversion is higher.

The welfare function in (1) has a maximum, which we find by setting the first derivative with respect to $t$ equal to zero. This yields:

$$t^* = \frac{\alpha}{1 + \alpha}.$$

Not surprisingly, preferred taxation is rising in the value of the publicly provided service or insurance. If this service/insurance is valued equal to private consumption ($\alpha = 1$) the tax rate would be one half. Note that income does not matter for preferences, even though public provision is redistributive (in the sense that everyone gets the same benefit regardless of their income and tax contribution). This is due to the particular log form of the utility function, whether we think of public goods with mildly declining marginal utility or social insurance with a mild degree of risk-aversion (RRA=1).

The degree of concavity or risk aversion does not affect any of the comparative statics we derive below. We have chosen a mildly concave utility function, corresponding to mild risk-aversion, to capture what we and many others see as an important feature of the modern welfare state during the Golden Age of expansion: broad cross-class support for spending. Although there are programs that serve mostly redistributive purposes – most obviously cash-transfer programs where RRA=0 and the model reduces to the MRR logic – it is not hard to see that a large welfare state can have broad cross-class support. For a wide range of social services and insurance programs -- pensions, education, childcare, and healthcare -- this is consistent with models that focus on the insurance, as opposed to redistributive, aspects of the welfare state (e.g., Baldwin 1990; Estevez-Abe et al, 2001; Moene and Wallerstein 2001).

2.2. Public provision with private alternatives

What is rarely noted about the baseline model is that it assumes that all provision of services and insurance is public. For the early postwar development of the welfare state this is not entirely

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1 We assume here that $\alpha$ is common to all, although one could imagine that it varies. If the government-provided good was an insurance, for example, $\alpha$ would be a function of the individual level of risk. Our focus will be on comparative statics that is not affected by the distribution of $\alpha$, so we ignore individual heterogeneity.

2 In the special case where utility is linear or RRA=0 the model collapses to a MRR model. Without efficiency costs everyone below the mean income would demand $t=1$ and everyone with mean income or higher would demand $t=0$. 
unreasonable. With the partial exception of the US, broad-based private insurance markets were subject to market failure and therefore underdeveloped or non-existent, there were no markets for mass education, and the financial industry was too underdeveloped to offer credible alternatives to public pensions. All this has changed dramatically in the past three decades, in part as a result of maturing industries and in part as a result of deliberate policies of deregulation and privatization. There are still areas such as unemployment insurance where private alternatives are underdeveloped (though not non-existent), but in most big spending categories -- education, pensions, childcare, and healthcare -- there are now well-developed private options, although there is much cross-national variation in the extent to which this is true.

Indeed, much of the public debate since the 1980s has centered on the introduction of private alternatives to public provision, and how to reform public provision to make it more competitive with private options. Initially championed by the right, the language of choice now infuses the party platforms across the political spectrum. Private alternatives are widely regarded as healthy competition for public providers, and “modernizing” the welfare state is increasingly seen as a way to accommodate rising demand from middle and upper middle income classes without adding new fiscal burdens.

A key question is therefore how the growing availability of private alternatives affects the politics of public spending. As we noted in the introduction, there are no models that answer this question head-on. We therefore amend the baseline model to add a private alternative to public provision. This alternative is freely available and financed by individuals spending a portion $p_i$ of their income on private alternatives:

\[
W_i = \ln[(1 - t - p_i) \cdot y_i] + \alpha \cdot \ln(\beta \cdot p_i \cdot y_i + t \cdot \bar{y}),
\]

where $p_i \cdot y_i$ is the amount spent on the private alternative. The parameter $\beta$ is a measure of the “quality” of this alternative. There are two reasons why individuals may choose to purchase insurance or services in the private market. One is that for those with above-average incomes private alternatives are in effect “cheaper” since benefits are proportional to money spent while public provision entails a subsidy to those with below-average income. The second reason is that the perceived quality of private alternatives may be higher, including services that are better tailored to individual needs and tastes. This will depend on how the well-developed the private market is; something that has changed significantly over time with more sophisticated and liquid markets for insurance and services. $\beta$ may also refer to more intangible perceived benefits of private alternatives associated with the greater ability to make individual choices. Neoliberal ideology sees choice as an end itself, and this appears to be a view increasingly shared by the left. So $\beta$ may be interpreted broadly to include value judgments.

Note that (3) assumes that all individuals share in the public service, even as people are allowed to supplement this service with private alternatives. An example would be buying a private health insurance that “tops up” the public plan with additional coverage and care. Another would be to supplement a basic public pension with an individual private account. Private schools also often work

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3 Of course, semi-public or partially private social insurance schemes were more common in the initial phase of welfare state development in the late 19th and early 20th centuries, but we focus on the postwar period here.

4 Although a market for private unemployment insurance is developing currently in Sweden due to recent reforms of the bourgeois government.
this way because a subsidy from the public system pays at least a portion of the cost, and because private schools often piggyback on the public test system and on publicly financed teacher education.\textsuperscript{5} The amended utility function (3) also has a maximum, which is:

\begin{equation}
\hat{t}^* = \frac{\alpha - p_i \cdot (\alpha + \beta \cdot r_i)}{1 + \alpha}
\end{equation}

where \( r_i = y_i / \overline{y} \) is relative income. Note that if \( p_i > 0 \) the preferred level of taxation and public spending is lower than in a public-only system. Critically, income is now also associated with lower support for public spending. This is because higher income makes the private alternative relatively more attractive as it is proportional to income whereas public provision is flat-rate. This result holds regardless of the degree of risk-aversion (or concavity of the utility function), and it means that the preferences over taxation and public spending will now be divided by class. The availability of private alternative thus significantly affects the politics of the welfare state, making broad cross-class compromises harder.

Note also that if the “quality” of the private good (\( \beta \)) increases, the preferred level of public spending drops. As before, preferences for taxation also depend on \( \alpha \). In the baseline model without private alternatives \( \alpha \) was equal to the demand for public provision; in the amended model it is a measure of the overall demand for services and insurance (“public goods” in the generic economic sense). Since this does not affect the balance of public and private provision, and preferences over this balance -- which is our focus -- we simply set \( \alpha \) equal to 1 in the following. With this assumption the maximum preferred tax level is 0.5. Since \( \alpha \) could of course take on other values, this should be interpreted as a maximum as opposed to a particular level.

The rate of taxation is a public choice, and while this is presumably affected by voter preferences, from the perspective of individuals it is exogenous. The choice of how much to spend on private provision, on the other hand, is an individual decision.\textsuperscript{6} The optimal level of private spending (again, with \( \alpha = 1 \)) is:

\begin{equation}
p_i^* = \frac{\beta \cdot r_i - t \cdot (\beta \cdot r_i + 1)}{2 \cdot \beta \cdot r_i}
\end{equation}

The result shows that private spending is rising in income and the quality of the private alternative, so long as public spending (\( t \)) is not too high. Note that because we have assumed that private alternatives are available in the market, \( p_i \) is an individual decision (unlike the choice of \( t \)), Equation (6) expresses the actual amount of private spending as opposed to the preferred level. If private alternatives were disallowed as a matter of public policy, (6) would express a preferred level. We return to the latter possibility below.

\textsuperscript{5} It does not have to be like this. Consuming the private good could reduce access to the publicly provided good. This would complicate the model because it implies network effects: when others increase their private spending the cost of public service provision goes down. Such network effects can be important in accounting for different private-public spending equilibria, as we have shown in Busemeyer and Iversen (2014). Here we keep such differences as exogenous and consider only the structure of public policy preferences, which are captured by the simpler model.

\textsuperscript{6} As noted in fn. 3 above, this does not have to imply that individual spending decisions are unaffected by those of others. There might well be network effects (Busemeyer/Iversen 2014) that make individual decisions contingent on the decisions of all others. Yet, from the individual cannot effect the decisions of all others, and we here abstract from network effects.
The income threshold at which people will start to spend privately \((p_i^* > 0)\) is:

\[
r_i > \frac{t}{\beta \cdot (1-t)}.
\]

This implies that those with relatively high incomes use private provision as a substitute for public provision. Also, the better the quality of the private alternative, not surprisingly, the greater the number of people who will spend on it.

An important question is now whether the government represents voters for whom (7) is satisfied or not. As a first approximation we can apply the median voter theorem to answer this question. Although there are two choices to be made, \(t\) and \(p_i\), only \(t\) is set politically. So imagine that the median voter, \(M\), has income that does not meet the condition in (7), which implies that \(p_i^* = 0\).

From (5) (and still assuming that \(\alpha = 1\)) this means that the tax rate is set to the maximum of \(\frac{1}{2}\). For this to be consistent with \(p_i^* = 0\) we find from (6) that the relative income of the median voter must be:

\[
r_M < \frac{1}{\beta}
\]

This condition implies that if the private alternative is not considered superior to the public \(\beta = 1\), the median voter will not spend on private alternatives if her income is below the mean. This will always be true if voting is based on income and income has a typical right-skewed distribution. But even a fairly small perceived advantage of private choices could tip the balance. The median to mean income in the US, for example, is about .8, so a \(\beta\) greater than 1.25 would satisfy equation (7).

If \(p_M^* > 0\) and the median voter anticipates the effect of taxation on his or her private spending, what is the preferred tax rate? To find out we substitute the optimal value of \(p_i\) defined in (6) into (5). The stark result is that \(M\) would choose to set \(t\) equal to zero and purchase the private substitute instead. So the presence of a private alternative can completely upend the standard result that the median voter is a bedrock supporter of public spending.

Governments are likely to be concerned about such a possibility, however, and try to prevent it. This is obviously particularly true for left governments, but even center-right governments may be apprehensive of major cuts in public provision. Not only are there political risks associated with radical cutbacks for the reasons suggested by Pierson (1993), but more fundamentally the power of politicians depends to some extent on taxation and a sizable budget. For those politicians there are different options, one of which is to “modernize” the public sector by introducing more choice and competition. If \(\gamma\) denotes the “quality” of public provision, just as \(\beta\) represents the quality of private provision, then the condition for the median voter to prefer only public provision is:

\[
\gamma > \beta \cdot \frac{1}{\beta}.
\]

\(^7\) An all-private equilibrium is thus possible in the model. With modification it could also sustain two equilibria: one public; one private. This can happen when there are network effects because the cost of the public alternative is a negative function of the number of people opting out of the public system. In this situation, few and many opting out may both be equilibria as in Busemeyer and Iversen (2014). The presence of multiple equilibria does not affect the relationship between income and preferences, however, which is the focus of this paper. We omit the more complicated multiple equilibria for this reason.
Governments can thus ensure continued support for the public system by reforming it in line with the availability of high-quality private alternatives. Some high-income voters will still take advantage of the private market, but their preferences for reducing public spending will be less intense as the quality of the public system increases. Specifically, the preferred tax rate is now:

\[
t^* = \frac{1}{2} \left[ 1 - \frac{1}{2} \cdot p_i \cdot (1 + \frac{\beta}{\gamma} \cdot r_i) \right],
\]

which shows that the negative relationship between income and preferred spending levels is attenuated as the quality of public services improve (relative to private services). Quality and efficiency in the public sector may be seen as valence issues, and from that perspective it appeals to parties of all stripes.

Yet partisan politics is never far behind. Choice and competition in the public sector is invariably tied to stratification as those with higher education and more resources are better able to take advantage of choice and to identify opportunities in the system. We have modeled public sector quality as benefiting all citizens equally, but we can easily inject a distributive dimension by allowing the allocation of benefits to be more or less income-graduated. Right constituencies are likely to find public options more attractive if they are more closely tied to income. This is not true for left constituencies, but these have no viable alternatives to the public system and will therefore keep supporting it. Specifically, consider the following amended model:

\[
W_i = \ln[(1 - t - p_i) \cdot y_i] + \alpha \cdot \ln[\beta \cdot p_i \cdot y_i + \gamma \cdot t \cdot (\delta \cdot y_i + (1 - \delta) \cdot \bar{y})].
\]

where \( \delta = [0; 1] \) is a weight that determines the degree to which public benefits are tied to individual income. If \( \delta = 1 \) benefits are proportional to income as they are for private benefits; if \( \delta = 0 \) they are flat-rate as in the standard model. With these assumptions the preferred tax rate is:

\[
t^* = \frac{1 + \delta \cdot (r_i - 1) \cdot (1 - p_i) - p_i \cdot (1 + \beta \cdot \gamma \cdot r_i)}{2 + 2 \cdot \delta \cdot (r_i - 1)},
\]

and the preferred level of private spending is:

\[
p_i^* = \frac{\beta \cdot \gamma \cdot r_i - t \cdot [\beta \cdot \gamma \cdot r_i + \delta \cdot r_i + (1 - \delta)]}{2 \cdot \beta \cdot \gamma \cdot r_i}.
\]

As before, private spending is declining in the tax rate, and for nearly all values of \( \beta, \gamma \) and \( \delta \) it is also rising in income.\(^8\) The key difference is that reducing the progressivity of public spending also reduces preferences for private spending, as long as income is above the mean \( (r_i > 1) \).\(^9\) In combination, (8) and (9) show that the support for public spending grows and becomes less class-divided as the quality of public services improves and as public spending becomes less redistributive.

\(^8\) The exception is in a small region just below the mean income where voters may find it beneficial to purchase some services in the private market if the quality is sufficiently high and if they barely benefit from redistribution because public benefits are income-graduated.

\(^9\) Below the mean less progressivity makes the private alternative relatively more attractive, but unless the quality of public services is notably inferior, this would seldom be enough to drive the low income voter to oppose public spending.
A more class-stratified welfare state, in line with the findings in Jaeger (2009), is associated with broader cross-class support.

These key results are illustrated in Figure 1. It shows the preferred level of taxation (solid lines) and corresponding private spending (dashed lines) for different values of the relative quality of private and public services ($\beta/\gamma$), and the targeting of public spending ($\delta$), assuming that i) the pivotal voter prefers only public spending (and hence is found in the “flat” region to the left in the figure), and ii) that voters at each level of income choose an individually optimal level of private spending ($p_i$).

In the first scenario (black lines) benefits are flat-rate ($\delta =0$) and there is a strong quality advantage for private provision ($\beta/\gamma =1.4$). Here the average support for public spending ($t$) is low, and it declines sharply with income. In this scenario the welfare state is fragile and contested. But if the efficiency of the public sector rises ($\beta/\gamma =1.1$), support for taxation also rises (the solid red line), and if benefits are made more income dependent, class divisions become smaller even as the system becomes more inegalitarian (solid blue line). The dashed lines show the corresponding predicted effects of $\delta$ and $\beta/\gamma$ on actual private spending.
In the case where there is no private alternative the model implies that there is also not much class conflict over public spending. In Figure 1 this is illustrated with the horizontal dotted green line. Of course, in reality this is likely to vary across policy areas. For some types of spending, such as higher education, support might well have been rising in income (higher education is a “normal good”); for other types of spending, such as unemployment benefits, support might well have been declining in income (because those with lower income tend to be more exposed to unemployment). The point is that with the emergence of private alternatives, even spending areas where there used to be broad cross-class support are now increasingly class-divided. The broad cross-class alliance behind the postwar welfare state has thus been undermined by the emergence of high-quality private alternatives.

Welfare reforms to compete with the private market have helped restore cross-class support for the public system, but this does not imply a return to the status quo ante. It is precisely because the well-off can better take advantage of private alternatives that politicians of all stripes are under pressure to mimic the private market in public provision by introducing more choice and income differentiation. The growing threat of exit of the well-off drives reform of the welfare state in a direction that makes it less solidaristic. So the inequality of the private market casts a long shadow onto the public sector.

An interesting related question that is outside the scope of this paper is the politics of welfare state reform. Our argument suggests that a very important driver has been the development of private markets for insurance and social services, which leads to middle class incentives to opt out of the
public system unless governments reorganize it to better mimic outside options. The character of this restructuring is likely to fall along partisan lines with the left focusing on improving quality, and the right being much more willing to allow benefits to be differentiated by income. We leave these conjectures for future work and focus instead on the class structure of preferences for public spending.

3. Empirical estimation

3.1 The statistical model

The key question for our purposes is how class preferences over public spending are shaped by private alternatives and by the structure of public provision (captured by $\delta$ and $\beta/\gamma$ in Figure 1). To answer this question we want to estimate Equation (8), subject to the constraint that people choose their optimal levels of private spending according to Equation (9). This yields the comparative statics illustrated in Figure 1. We can use a linear approximation to test these predictions:

$$t_i^* = a_j + b_1 r_{i,j} + b_2 \cdot \delta_j \cdot r_{i,j} + b_3 \cdot \beta_j \cdot \gamma_j \cdot r_{i,j} + \varepsilon_{i,j},$$

where $i$ indexes individuals and $j$ indexes countries. We expect $b_1$ to be negative – reflecting the class-conflict over public spending in a world with private alternatives -- and $b_2$ and $b_3$ to be positive -- meaning that class divisions over public spending will be attenuated as public spending becomes more income-graduated and as the relative quality of public provision rises.

The intercept $a_j$ is the preferred level of public spending of the poor, which in the model is a constant determined by $\alpha$ (the demand for “public” goods). If the income is measured relative to the mean, the intercept will capture the mean level of support for spending in each country. Using nationally-specific intercepts is commonly referred to as a fixed effect (FE) model. Our theoretical model suggests that this level may vary by $\delta$ and $\beta/\gamma$, and we test this possibility by including macro-level indicators along with a single (common) intercept, which is allowed to vary randomly across countries. Using standard terminology in the literature, this is called a random effects (RE) model.

To estimate equation (10) we need individual-level data, and there are now good comparative public opinion datasets that have questions about preferences over spending across a variety of public policy areas. Specially, we use data from the International Social Survey Programme’s 2006 module on the Role of Government, which asks questions about preferred levels of spending on public pensions, public healthcare, and public daycare. This survey also contains information about family income. We use income deciles divided by the middle (mean) decile as a proxy for relative income ($r_{i,j}$).

The main challenge is to find good measures for our macro-level variables. There are simply no comparative data on the relative quality of public and private options ($\beta_j/\gamma_j$), and measures of income-stratification of public benefits ($\delta_j$) are sparse at best. Even without such measures, however, we can use an indirect approach. This approach is best explained with reference to Figure 1. Note that when $\delta_j$ rises and $\beta_j/\gamma_j$ falls two things happen simultaneously: (i) the negative relationship between income and support for spending is attenuated (as already noted), and (ii) the share of private spending declines. We can use this implication to perform an indirect test of the model. Although we do not have individual-level data on private spending, we do have macro-level data on aggregate public spending ($T_j$) as a share of total public and private spending. Since individual private
spending declines in $\delta_j$ and rises in $\beta_j / \gamma_j$, so does aggregate private spending ($P_j$). Specifically, the greater the share of public to total spending the less class divided we expect preferences over public spending to be. In figure 1 this is equivalent to lower private spending being associated with “flatter” lines for the relationship between income and preferences for public spending. Specifically:

$$(10) \quad t_i^* = a_j + b_1 \cdot r_{i,j} + b_2 \cdot s_j \cdot r_{i,j} + \epsilon_{i,j},$$

where $s_j = P_j / (P_j + T_j)$ is the public share of total spending. As before, we expect $b_1 < 0$ and $b_2 > 0$. Note that these hypotheses run counter to standard power resource arguments, in which a large public sector is seen as an expression of the power of the left, with spending imposed over the opposition of the right. From this perspective, the more public spending, the more contested such spending will be. In our model the opposite is true.

It is important to underscore that our key hypotheses assumes that private alternatives are allowed and freely available everywhere. When this is not the case, demand for public goods (in the generic economic sense) among the wealthy can only be satisfied through higher public spending. This suggests broad cross-class support for the welfare state as we noted above. But there is a complication, which is that these same individuals will have an unsatisfied demand for private services. The optimal level of private spending (Equation 9) is now a measure of preferences as opposed to actual spending, and this might spill-over into opposition to (usually egalitarian) public spending -- if liberalization and privatization are seen as politically feasible. If some countries have liberalized while others have not (yet!), this could have the consequence that higher income groups are more opposed to public spending in countries where the public sector has a monopoly or near-monopoly. The predicted coefficient on the interaction between income and public share would then be negative.

3.2 Data and measurement

For our empirical analysis, we rely on data from the International Social Survey Programme (ISSP) Role of Government (RoG) IV module. Fieldwork for this survey was conducted in 2006. Our theoretical argument applies to advanced post-industrial democracies in the Western world with mature welfare states and viable private alternatives, so we cannot make use of available ISSP data for countries that fall out of the scope of our model (e.g. Uruguay, Israel or Venezuela). The final sample consists of twenty countries, for which we have sufficient data both on the micro and the macro level: Australia, Canada, the Czech Republic, Switzerland, Germany, Denmark, Spain, Finland, France, Great Britain, Hungary, Ireland, Japan, the Netherlands, Norway, New Zealand, Poland, Portugal, Sweden, and the United States. In some cases, the number of countries had to be reduced due to missing data for private spending. The low number of macro-level units is a perennial problem in multi-level analyses (cf. Stegmueller 2011) as well as in comparative political science more generally. Nevertheless, an $n$ of 20 is sufficient to yield significant results that we believe are generalizable to our set of cases.

The RoG module contains a battery of questions about individual preferences for public spending. The exact wording of the root question is:

“Listed below are various areas of government spending. Please show whether you would like to see more or less government spending in each area.”

Respondents can reply on a 5-point Likert scale (“spend much more”, “spend more”, “spend the same as now”, “spend less”, “spend much less”). The areas of government spending that are mentioned
include four areas of welfare state spending: spending on health care, education, retirement (pensions), and unemployment benefits. In order to get an overall measure of support for welfare state spending, we perform a factor analysis of these four items, which reveals one dominant underlying factor, on which all four items load to a similar extent.\textsuperscript{10} In the following analysis, we use this factor as an indicator of a general propensity to increase social spending. We also use the individual items for those policy fields, where viable private alternatives have developed in the past decades, i.e. education, pensions and health care.

At the micro-level, we include the following variables: relative individual income (income (in deciles) in the country-specific distribution of incomes divided by the country-specific mean), gender and educational background (in years of education). Income is of course expected to be negatively associated with support for social spending as is education, since high formal education is correlated with portability of skills, which is a (partial) substitute for insurance (Iversen and Soskice 2001). Education may also pick up error in the measure of income because it is so closely correlated with it. In the case of support for education spending, the expectations are slightly different. In that case, individual income does not have much explanatory power because education spending is less redistributive than other kinds of social policies. On the other hand, the better-educated have been found to be more supportive of further investments in education, in part because their children are more likely to benefit (Busemeyer 2012, 2015). Women are expected to be more supportive of social spending (Svallfors 1997: 292; Iversen and Rosenbluth 2006). We also include various indicators of the individual’s employment status as controls: full-time employed (the reference category); part-time employed; less than part-time employed/staying at home/helping family member or a disabled person/out of labor force; unemployed; in education, and being retired.

At the macro-level, we employ a simple aggregate measure of the division of labor between public and private financing in the welfare state. The public spending share is the share of public social spending out of all total social spending for various parts of the welfare state as defined in the OECD’s Social Expenditure Database.\textsuperscript{11} This database further distinguishes between voluntary private spending (e.g. individual retirement savings or voluntary out-of-pocket spending in the case of health care) and mandatory private spending. The latter may result from, for example, the state requiring citizens to buy private health insurance (as in the Netherlands or, more recently, in the United States). We count mandatory private spending as private spending rather than public spending. In the FE specification, we include the cross-level interaction between individual relative income and the public spending share. In the RE specification, which allows for the inclusion of additional macro-level control variables, we also include past (lagged by one year) levels of the public spending share.

In addition to the overall division of labor in the financing of the welfare state we include measures of the public and private shares in the specific policy areas under study. Wlezien (1995, 2004; see also Soroka/Wlezien 2005) shows that individual spending preferences are more likely to react to aggregate levels of spending rather than spending in particular policy areas, except when the latter are particularly salient. This is why we also expect stronger effects in the case of aggregate spending shares, because it seems more reasonable to assume that individuals have a broad understanding of the general division of labor between public and private in a given welfare state regime rather than domain-specific knowledge.

\textsuperscript{10} It is not entirely clear to what extent this factor represents true preferences for social spending and to what extent it is a statistical artifact, because survey respondents tend to provide similar answers in a battery of survey questions. Performing a factor analysis of all eight spending items also reveals one underlying factor, but the loadings of the individual variables differ. In particular, preferences for defense spending and the environment are less tightly related the underlying factor than the rest of the items.

\textsuperscript{11} Note that this list does not include education spending.
For models with the propensity to support social spending as dependent variable, we employ simple linear OLS regression, since the underlying factor is a continuous measure based on factor scores. For the remaining models, we transform the 5-point variable given in the original data into a binary variable, which takes the value of “1” when individuals profess a preference for “more” or “much more” spending and “0”, when they respond with “the same” or “(much) less” spending. This is done to simplify the analysis and to make the coefficient estimates easier to interpret and mirrors the practices of researchers working with the ISSP dataset.

3.3 Results

Table 1 presents the results of a regression analysis of the determinants of the individual propensity to support increases in social spending. The most important finding for our purposes is a confirmation of the expectation that a higher public share is associated with a weaker income effect. Not surprisingly, there is a strong negative association between individual income and support for more social spending, but the positive cross-level interaction effect between individual income and the public spending share on the macro level shows that this negative income effect is mitigated for higher levels of public involvement. The larger the welfare state, the less contested it is. Figure 2 is a graphical representation of this finding. As indicated by the histogram and the rug plot in this figure, the variable “public share of social spending” ranges from .6 (60 percent) to close to 1.0 (100 percent). The figure shows that income clearly has a negative effect on support for social spending across the whole range of this variable, but the effect is much more negative in countries with a lower share of public social spending.

This result cannot simply be because a large welfare state is more likely to benefit the well-off (“positive feedback”). To the contrary, we know that the size of the welfare state is positively associated with redistribution (Bradley et al, 2003; Iversen 2005). Nor is this simply a case of reverse causation (higher average support resulting in a larger welfare state) since we are focusing on differences in the level of support across income groups, and since the result holds whether or not we include fixed effects (which eliminate cross-national differences in levels). Instead, we attribute the result to two related mechanisms in our model. First, where the public sector is more efficient relative to private alternatives, it will generate higher support among those high-income individuals who otherwise have the realistic option of opting out. Research by Svallfors (2013) using European Social Survey data supports this notion. Second, where the public sector allows more income stratification in benefits, support will rise among the well-off. It is difficult if not impossible to separate out these effects with existing data, but we see both mechanisms as closely related because they mimic key features of private markets such as choice, competition, product differentiation, and income-graduation.

Again, we cannot demonstrate these mechanisms directly because comparative data are simply nonexistent, but we can relate our results to the case-oriented literature that has much more to say about mechanisms. An intuitive way to relate our findings to particular countries is depicted in figure 3, where we plot the country-specific coefficients of relative income against the country’s public spending share. The countries with the least income differentiated preferences (shown in Figure 3) are continental European, Southern European and Eastern European countries. These are all cases, in which the link between employment status and access to welfare state services and benefits is quite pronounced (as in the Bismarckian and the Mediterranean welfare state model) Many of these are also known to have a high degree of educational stratification and early tracking in schools and this is also the set of countries in which Jaeger (2009) finds the strongest support for the welfare state. Such stratification, as we have argued, help retain the support of the middle and upper-middles classes. In
contrast, the relative income coefficient is more negative in countries with well-established voluntary or mandatory private benefits and services (i.e. most of the liberal countries as well as the Netherlands and Switzerland). This means that in these countries the wealthy are more opposed to public involvement in the provision of welfare state services, because they can rely more easily on private alternatives. The Scandinavian countries, in particular Denmark and Sweden, are less stratified, but choice and income-graduation has been rising over the past two decades, and the provision of public services stand in contrast to liberal welfare states where they are often means-tested and therefore of little use for the middle and upper middle classes. Still, the relative position of Scandinavian countries way below the regression line indicates that there is unmet demand for differentiation and privatization, at least in 2006. This fits well with the fact that Swedes elected a bourgeois government in the same year that set in motion significant reforms of the welfare state regime.

The control variables behave largely as one would expect. The positive association between gender (being female) and support for social spending is confirmed, as is the positive association between being a labor market outsider (unemployed or out of the labor force) and spending support. On average, older people are more likely to demand increases in social spending, which is not surprising since many social risks are related to the individual’s position in the life-cycle (in our model that would mean that they have higher $\propto \text{’}s$). In the RE model (model 2 in table 1), we also find a positive association between past levels of the public share of social spending, but it is not statistically significant.

Next, we analyze whether the association between the overall public share of spending, income and spending support also holds across different policy domains. In particular, we look at the impact of the public spending share on the strength of the income effect across three major policy domains: education (table 2), pensions (table 3) and health care (table 4). The most important finding here is that in all three cases, we find effects that are similar to those in table 1. In all cases, there is a positive (and statistically significant) cross-level interaction between income and the public spending share on the macro level, independent of whether we use FE or RE model (models 3 and 4 in tables 2, 3 and 4, respectively).

Looking at policy-specific spending shares, however, the evidence is more mixed. In the case of education, we find a similar pattern compared to the overall public spending share. The positive cross-level interaction effect indicates that high-income individuals in countries with a strong public involvement in education are more likely to support continued government spending, whereas the existence of private alternatives contribute to more opposition to government (see Busemeyer/Iversen 2014 and Busemeyer 2012 for a more detailed analysis of the dynamics of education spending preferences).

In the case of pensions, we find the opposite effect, however. Here, the negative cross-level interaction effect indicates that wealthy people in publicly dominated systems become even more critical, i.e. the negative income effect on preferences becomes stronger. This finding should not be over-interpreted, because it is only significant at the .1 level in model 1, and in the RE specification (model 2 of table 3), it is even not significant anymore. Still, there might be several plausible explanations for this. One is that in the case of pensions, reforms move at a slower pace compared to education and health care. The design of pension schemes has strong long-term implications for life-course planning of individuals. Therefore, pensions reforms usually proceed in a very cautious and incremental manner. Unlike private education alternatives, which have a long pedigree in most countries, privatization in pensions in many countries only commenced in the 1990s or 2000s (Immergut et al. 2007). Therefore, preferences of wealthy people in public systems might still be a reflection of their support for opening up the system for private alternatives. This is a different choice
than what we focus on in our model, since we assume that private alternatives are already available. Assuming that “late-adopters” are the countries with the largest public shares (usually close to 100 percent), then a negative interaction simply shows that these are countries where the demand for private services among well-off is left unfulfilled, showing up instead as opposition to public spending.

In the case of health care, we find yet a third pattern, namely a positive but insignificant cross-level interaction effects between income and the policy-specific public spending share. As in the case of education, however, there is a strong positive interaction between the overall public spending share and income, so in part it may be explained by lower awareness of the division of labor between the public and private sectors. Also, while private healthcare alternatives developed earlier than private pensions, in some countries these alternatives are of quite recent vintage. This might position healthcare between education and pensions in terms of two opposite predictions of our model. As we noted above, when private options are allowed and available, the prediction is that a high public share will be associated with less class-divided support. But when private options are not allowed or underdeveloped in some countries, a high public share will be associated with more opposition spending among the well-off.

It might also be due to the fact that health care spending in particular is driven by exogenous forces, such as population ageing and technological change, with strong implications for rising health care costs.

In sum, we find that compared to policy-specific spending shares, the overall distribution between public and private spending in the welfare state is more important and confirms with the expectations developed in our theoretical model.
### Table 1: Determinants of preferences for more social spending.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative income</td>
<td>-0.505*** (0.0669)</td>
<td>-0.505*** (0.0669)</td>
</tr>
<tr>
<td>Gender (female)</td>
<td>0.0461*** (0.00980)</td>
<td>0.0463*** (0.00980)</td>
</tr>
<tr>
<td>Educational background</td>
<td>-0.0166*** (0.00135)</td>
<td>-0.0168*** (0.00134)</td>
</tr>
<tr>
<td>Age</td>
<td>0.00255*** (0.000404)</td>
<td>0.00252*** (0.000404)</td>
</tr>
<tr>
<td>Part-time worker</td>
<td>-0.00648 (0.0167)</td>
<td>-0.00703 (0.0167)</td>
</tr>
<tr>
<td>Marginal employment or out of labor force</td>
<td>0.0376** (0.0172)</td>
<td>0.0369** (0.0172)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>0.188*** (0.0268)</td>
<td>0.187*** (0.0268)</td>
</tr>
<tr>
<td>In education</td>
<td>-0.0612* (0.0345)</td>
<td>-0.0626* (0.0346)</td>
</tr>
<tr>
<td>Retired</td>
<td>-0.0216 (0.0171)</td>
<td>-0.0221 (0.0171)</td>
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<td>Relative Income * Public share of social spending</td>
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<td>Public share of social spending</td>
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Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1
Figure 2: Graphical representation of the cross-level interaction between income and public share of social spending.
Figure 3: Association between public share of social spending and country-specific income coefficients.
Table 2: Determinants of preferences for education spending.

<table>
<thead>
<tr>
<th>Dependent variable</th>
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<tr>
<td></td>
<td><strong>Support for more or much more public spending on</strong></td>
<td><strong>education = 1; support for same or less = 0</strong></td>
<td></td>
<td></td>
</tr>
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<td>-0.990***</td>
<td>-0.995***</td>
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<td></td>
<td>(0.233)</td>
<td>(0.233)</td>
<td>(0.249)</td>
<td>(0.249)</td>
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<td>(0.0611)</td>
<td>(0.0611)</td>
<td>(0.0612)</td>
<td>(0.0611)</td>
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<td>(0.0967)</td>
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<td>(0.0967)</td>
<td>(0.0966)</td>
</tr>
<tr>
<td>In education</td>
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<td>0.519***</td>
<td>0.515***</td>
<td>0.512***</td>
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<td></td>
<td>(0.128)</td>
<td>(0.128)</td>
<td>(0.128)</td>
<td>(0.128)</td>
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<tr>
<td></td>
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<tr>
<td>Relative Income * Public share of social spending</td>
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<td>1.165***</td>
<td></td>
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Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Table 3: Determinants of preferences for pension spending.

<table>
<thead>
<tr>
<th>Dependent variable</th>
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<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
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</thead>
<tbody>
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<td>Support for more or much more public spending on pensions = 1; support for same or less = 0</td>
<td>Support for more or much more public spending on pensions = 1; support for same or less = 0</td>
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Standard errors in parentheses

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Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1
4. Conclusion

This paper has studied the implications of the privatization of welfare state services and transfer schemes for the continued support of a strong role of government in the provision of social policies. We did not aim at explaining why privatization came about in the first place, which may have been related to changing voter demands, maturing markets for private insurance and other social policies, changing ideologies or the influence of organized interests (cites). However, taking privatization of large parts of the welfare state as a fact, our analysis reveals that it has strong implications with regard to the future politics of the welfare state. In countries, in which the public share of the welfare state is still large although private alternative exist, we find that wealthy people are less likely to oppose further government spending on social policies. The opposite occurs in more “privatized” welfare states: Here, because of the easy availability of private alternatives, wealthier individuals are more likely to opt out and express stronger opposition for an expansion of government spending. Thus, in publicly dominated welfare states, the latter is still supported by broad cross-class consensus, whereas in partially privatized welfare states, class conflict about the role of government is more pronounced.

In future work, we aim at getting better measures for our model’s parameters capturing the existing level of stratification in the public system as well as relative differences in the quality between public and private provision. In a cross-national perspective, this data is very hard to get, since most measures of stratification and service quality focus on a particular country’s system as a whole without differentiating between public and private institutions. Therefore, one way forward is to combine the cross-national analysis done in this paper with more fine-grained case studies of individual countries (such as the one sketched out in the introduction) or to make use of more detailed national datasets.
References:


