The Politics of Consumption Taxes: Globalization and the Median Voter

Mahnoush Abdollah Milani^{*} Arian Daneshmand^{**}

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<u>Abstract</u>

The regressive nature of consumption taxes poses a challenge to partisan theory. Using data for up to 20 OECD countries in the period 1970-2003 this article aims to explore the question of whether the idea that social democratic governments typically have to compromise on policy goals and core constituency interests to make themselves more appealing to the median voter necessitates the use of regressive consumption tax policies. The results suggest that the position of the median voter determines the actions of social democratic governments regarding regressive consumption taxes when globalization is pronounced.¹

Keywords: Consumption Taxes, Economic Globalization, Social Democracy, Median Voter.

1- Introduction

The consequences of economic globalization for taxation in advanced industrial democracies have been the focus of much debate among political economists. The driving force behind the evolution of tax systems in OECD countries derives from the relationship between economic globalization and national governments. In this respect, we are following the lead of a number of authors, most directly that of Dani Rodrik (1997). He has argued that

^{*} Assistant Professor of Economics, Faculty of Economics, Allameh Tabatabai University, Iran.

^{**} University of Essex, United Kingdom, (Corresponding Author)

^{1 -}In the case of Iran, the government has recently started to develop its tax regime in which taxes on consumption, and in particular value added taxes, become an increasingly important element of revenue collection. It would be useful to know the redistributive consequences of different levels and types of consumption taxes in Iran.

economic globalization increases the political demands on governments for compensation through a generous welfare state; at the same time, it directly influences the ability of governments to raise income from taxing mobile and immobile factors in order to satisfy the demands for compensation and redistribution.

Social democratic governments have strong incentives to promote revenue policies that redistribute income from richer to poorer parts of the society. Progressive taxes, such as capital taxes, are one of their policy instruments. Economic globalization has dramatically increased the mobility of tax bases, and as a consequence, competition over internationally mobile factors has made it increasingly difficult for governments to rely exclusively on mobile tax bases, such as capital and labour. This makes immobile tax bases, such as consumption taxes, the most promising targets of burdenshifting policies. Given the regressive nature of consumption taxes, it is essential that the way in which social democratic parties adjust to politicaleconomic circumstances is identified.

In this article, we argue that social democratic governments are constrained by a certain combination of domestic and international factors. The objective of this study is to assess the influence of the median voter on consumption taxation. This article explores the question of whether domestic and global political-economic constraints prevent social democratic governments from reducing regressive consumption tax rates as part of their redistributive efforts on the revenue side. The main argument can be stated very simply. We argue that, ceteris paribus, social democratic governments have an incentive to reduce consumption tax rates, but the pressures of globalization combined with the position of the median voter exert a significant impact on their consumption tax policy making. For this article's argument, taking into consideration the effect of the median voter on the interaction between government partisanship and globalization is crucial to our hypothesis. What makes our study different from most other similar studies is that the inclusion of political and economic factors in one model allows us to accurately assess the political prominence of social democracy.

This article is structured as follows: First, the question motivating this article is illustrated by a discussion of the politics of consumption taxes; we then set out an argument of how the policy options of social democratic governments regarding consumption taxes are shaped by both economic and

noneconomic forces. The second section provides the research design for the empirical analysis including a discussion of the data and the basic specification of the empirical model. The third section presents the empirical results and discusses the findings. The final section concludes.

3- Theoretical argument

The politics of consumption taxes is fundamentally influenced by questions about globalization and redistribution. There is considerable literature, reviewed below, on the political economy of taxation that provides relevant and useful background to our work. The existing literature on the globalization-welfare state nexus mainly dealt with two issues. First, globalization raises the demand for compensation through a generous welfare state (Rodrik 1997, Iversen and Cusack 2000, Alderson and Nielsen 2002, Scheve and Slaughter 2004, Anderson and Pontusson 2007).¹ The political backlash against economic globalization exerts significant pressures on social democratic governments to cushion their citizens from the vagaries of economic openness (Hays 2003). Also, some scholars (Hicks and Swank 1992, Blais et al. 1993, Swank 1998, Garrett and Mitchell 2001, Hays 2003, Allan and Scruggs 2004, Burgoon 2006, Larcinese 2007, Adams and Somer-Topcu 2009, Pontusson and Rueda 2010, Ward et al. 2011) point out, while the only option open to governments is to maintain public support for economic globalization through a generous welfare state, they will face strong revenue constraints on the financing of additional welfare spending, as a consequence of their exposure to globalization. The second issue addresses the question of whether and to what extent economic globalization leads to shifts in the tax burden towards the immobile factors such as consumption. Notable contributions are Swank and Steinmo 2002, Kato 2003 and Dreher 2006a.

While social democratic governments, commonly known as the defenders of the middle-class, are expected to be associated with higher tax rates as a way of financing the welfare state, the increased mobility of tax bases reduces the ability of these governments to rely heavily on mobile taxable

¹⁻ The intuition behind this is that higher levels of welfare state generosity lead to greater redistribution on the revenue side, which in turn requires higher levels of taxation.

resources. This makes immobile tax bases, such as consumption taxes, the most promising targets of burden-shifting policies. In this context, economic globalization prevents the implementation of tax policies favoured by social democratic governments. This article seeks to address this issue by providing an empirical analysis of the politics affecting consumption taxes. The immediate goal of this study is to explore the determinants of consumption taxes in advanced industrial economies. We argue whether or not - or to what extent - the political prominence of social democracy matters to taxation outcomes, with the skeptics emphasizing that the median voter influences tax policies in countries ruled by social democratic parties.¹

The argument supporting the existence of a relationship between social democratic governments and consumption taxation rests on the proposition that social democratic governments have strong incentives to pursue redistributive tax policies—particularly those relating to progressive forms. In this context, the way in which social democratic governments formulate particular policies and the economic outcome of this remains an important concern. Social democratic governments are commonly expected to be associated with a combination of expenditure and tax policies that favours the interests of low and middle income classes. It is important to emphasize at this point that the principle of tax progressiveness will redistribute income in favour of wage-earners and middle class workers while regressive tax systems are unfavourable for these groups (See: Garrett 1998, Cusack and Beramendi 2006, Beramendi and Rueda 2007, Dreher, Sturm, and Ursprung 2008).² This puzzling situation prompts the following question: If partisan politics itself were the reason that social democratic governments rely on progressive forms of taxation, what explains their increasing reliance on regressive consumption taxes?

As we have already mentioned above, the regressive nature of consumption taxes poses a challenge to partial theory. Because regressive

¹⁻ There are several reasons why globalization creates substantial pressures and constraints on governments committed to economic openness. For example, Foreign Direct Investment (FDI) increases firm's accessibility to foreign factors of production and the ease of labour substitution which tends to make labours feel more insecure because it increases firm's elasticity of the demand for labour.

²⁻ A measure of tax progressiveness constructed by (Swank 1998, Garrett and Mitchell 2001) examines the proportion of direct taxes raised from corporations as opposed to households.

taxation has political consequences and political determinants, an analysis of the politics affecting consumption taxes is essential to have an accurate assessment of the political economy of regressive consumption taxes. For the reasons set out above, we argue that social democratic governments are constrained by a certain combination of economic and noneconomic factors. So far, we have assumed that social democratic governments are likely to be under pressure to shift their tax policies from progressive to regressive when facing a set of economic globalization challenges. The preceding discussion raises an important question: does the use of regressive consumption taxes as a revenue source to finance high public expenditure really matter for social democratic governments? Ceteris paribus, the distribution of tax burdens is meaningfully related to the ideological preferences of governments which are reflected in the way in which social expenditures are financed.¹ What we can conclude, is that globalization restricts the ability of social democratic governments to gather revenue from mobile tax bases. Hence, we can state our first testable hypothesis:

Hypothesis 1: Under the pressure of globalization, social democratic governments tax consumption more heavily than their conservative counterparts.

Test of Hypothesis 1. The interaction between social democratic governments and globalization should have a positive sign.

While economic globalization plays a crucial role in mobilising voters, it generates the constraints that force social democratic governments to finance high public expenditure through tax policies that may not reflect the preferences of the median voter and/or their core constituencies. Our argument rests on the proposition that the position of the median voter reflects the desire for redistribution and welfare provisions. But the demand for welfare state retrenchment generates constraints that affect the policy options of social democratic governments regarding their tax base and rates.

¹⁻ The impact of government partisanship on tax policies is highlighted in the comparative political economy literature. It has suggested that left-wing governments are more likely than right-wing governments to use progressive revenue instruments such as taxes on capital and income (for example, see Garrett and Mitchell 2001, Blom-Hansen et al. 2006, Swank 2006, Iversen and Stephens 2008).

In this case, one of the options available to social democratic governments is to shift their tax burden from mobile to immobile tax bases - particularly consumption taxes - in order to maintain a high level of public good provision. This is not consistent with the ideological nature of social democracy. In what follows, we argue that the key to this puzzle lies in the relationship between social democratic governments and the position of the median voter. Hence, the real question is whether the idea that social democratic governments typically have to compromise on policy goals and core constituency interests to make themselves more appealing to the median voter necessitates the use of regressive consumption tax policies.

As mentioned above, the constraints arising from economic globalization strongly affect governments' tax and expenditure policy decisions. If social democratic governments reduce their tax rates on consumption, they will face substantial budgetary pressures to finance the welfare state. However, if they try to extract revenue from such tax bases, one would expect their increasing reliance on regressive consumption taxes to lead to considerable electoral costs. There is a good reason for this. Taxes on consumption increase the level of inequality in disposable income, particularly for poor households -known as social democratic parties' core support group (See: OECD 2007). It is not surprising that such taxes create equity problems because poorer households tend to consume a higher share of their income than richer households. This brings us to the relationship between regressive consumption taxation and the median voter. Arguably, if the median voter is a wage earner, they will respond to income inequality by moving to the left (on left-right policy scales) and demanding redistributive policies. The political theory of progressive taxation considering the determination of tax structure is put forward by Cukierman and Meltzer (1991) who argue that since the number of citizens at the top of the income distribution is relatively small, the median voter is more likely to choose progressive forms of taxation. Following this logic, we expect that, ceteris paribus, tax systems become less regressive as the median voter moves to the left.

Turning to the tax policy preferences of the median voter with low income or low income groups, one might expect social democratic governments to be associated with less consumption taxation when the median voter is located to the left. However, if this is the case, to what extent can social democratic governments respond to the policy preferences of the

median voter, on the one hand, and their core constituencies, on the other? To answer this specific question, we need to consider the policy consequences of party competition for the distribution of tax burdens. For illustrative purposes, let us now consider three different scenarios. In the first scenario, parties will only cater to their core constituency; in this case, social democratic governments are less likely to rely on regressive consumption taxes. In the second one, parties know for certain where the median is and converge on the median to maximise expected policy payoffs irrespective of what their supporters want. On this point, Bingham Powell (2000:164) has commented "the appropriate normative standard for the congruence of citizens and policymakers is the position of the median citizen" and the policy position that in some ways "most preferred" policy is the position of the median voter (Hubber and Powell 1994). The latter is consistent with the median voter theorem (Cox 1988). In the final scenario, the extent to which parties are uncertain about the position of the median is the only factor which decides whether they depart from it, and then only the side of the median on which they locate is governed by the preferences of their core supporters.

As we have explained in detail above, governments need to take voter preferences with respect to social expenditures and public revenues into account. Several studies on taxation have shown that the interaction between domestic policy makers and the political preferences of voters affects the government's ability to collect taxes from the economy (De Donder and Hindriks 2003, Basinger and Hallerberg 2004, Alt et al. 2009, Plumper et al. 2009, Ward et al. 2011, Swank 2013). Moreover, a variety of studies highlights that parties respond to economic conditions by changing their policy position (Adams and Somer-Topcu 2009, Haupt 2010, Ward et al. 2011, Schumacher 2013). Several recent contributions (e.g., Gerber and Lewis 2004, Mcdonald et al. 2004, Pontusson and Rueda 2010, Ward et al. 2011, Ezrow et al. 2011, Clark 2013, Ezrow et al. 2014) propose models in which the positions taken up by parties in electoral competition are the result of the preferences of their core constituencies and the median voter. Alesina and Rodrik (1994) present a model in which the median voter has an incentive to impose progressive taxation, especially in societies with higher income inequality. Moreover, they find that there will be a strong demand

for redistribution when the productive resources of the population are distributed unevenly.

Ward et al. (2011) demonstrate that the more a country is exposed to economic globalization, the more parties of the left and the right will locate to the right of the political system. Ezrow et al. (2011) demonstrate that while mainstream parties shift their position in line with the mean voter position change, niche parties (i.e. communist, green or radical right parties) respond to position changes of their mean party voters. Furthermore, De Donder and Hindriks (2003) argue that the median voter prefers progressivity. Hence, if the parties are uncertain about the position of the median voter, they are expected to shift their policy positions to the median voter's ideal policy position in order to maximise their expected policy payoffs, in line with Donald Wittman (1983). This implies that the scope for partisan differences on tax policy is constrained by the nature of party competition; we therefore would expect to see modest differences between left and right taxation policies when the median voter is located in the political centre ground. This is in line with Ward et al.'s (2011) argument that the two positions must be very close, because the distribution of selfplacement is unimodal and symmetric.

One important factor that constrains the ability of social democratic governments to locate nearer their tax policy ideal is a country's exposure to economic globalization. As mentioned above, tax systems are becoming regressive in the sense that the distribution of the tax burden is shifted from mobile factors such as capital and labour (generally considered as progressive taxes) to immobile consumption. It is a commonplace that a large leftward shift in the position of the median voter reflects the desire for compensation. By this logic, we expect social democratic governments to gather more revenue in order to provide a sufficient amount of public goods. There are various possible scenarios that explain the decision making process. For example, the median voter is willing to put up with highly regressive consumption taxation if they expect to receive welfare benefits in return. In this context, if social democrat core supporters do not expect to gain on balance from the welfare state through regressive consumption taxes, this pattern provides a challenge to party competition theory. Following Ward et al. (2011), therefore, we resolve this paradox by arguing that if the expected position of the median voter is far enough to the right, economic

globalization does not affect social democratic party positions.¹ In this case, social democratic governments attempt to attenuate regressivity as a means of softening the tax burden levied on consumers by making tax cuts on consumption. This puzzle leads to the following hypothesis:

Hypothesis 2: Under pressure due to globalization, social democratic governments are associated with lower levels of consumption taxes than their conservative counterparts as the median voter moves to the left.

Test of Hypothesis 2. The three-way interaction between social democratic government, globalization and the median voter is expected to be negative.

4- Research Design

In this section, we say something about the design used for testing the hypotheses derived from the theoretical discussions. The discussion of the research design in this section shows how theoretical and policy questions are translated into an empirical analysis. Before detailing our estimation techniques, we start with a description of the data used in this research.

I- Data

We test our hypotheses with data for twenty OECD (Organization for Economic Co-operation Development) countries from between 1970 and 2003.² The panel is unbalanced, where the length of the time series varies slightly between countries. The countries included in the sample are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom and the United States. Our dependent variable is consumption taxation as a percentage of total taxation. Our main independent variables are *Median voter*, *Globalization* and *Social democratic government*. In this sub-section, we explain in more detail the dependent variable used in our quantitative analysis below. There are, however, a number of additional variables that we want to bring into our

¹⁻ Under these circumstances, one would expect social democratic governments to use deficits as a macroeconomic tool to finance the welfare state.

²⁻ Restrictions on data availability (e.g. data on voter position) limit our analysis to a sample of 20 OECD countries for the period of 1970-2003.

analysis. In all cases there are strong theoretical, or empirical, reasons to believe that these variables affect taxation outcomes. Table 1 presents the definitions and summaries for all the variables used in this article.

Variable	Description	Mean	Std. Dev.	Min	Max	Source
Consumption Taxes	Consumption taxes as percentage of total	27.77	7.34	10.65	49.83	OECD Revenue Statistics.
	tax revenue.					
Median Voter	Median voter ideological position.	54.55	11.91	19.41	89.35	HeeMin Kim and Richard C.Fording (1998).
Globalization	KOF Index of globalization.	71.31	12.28	34.43	93.64	Dreher, Axel (2006b).
Social Democratic Government	Percentage of cabinet seats held by social democratic parties.	34.91	38.18	0	100	Comparative Political Data Set <i>III 1990-2010</i> .
Deficit	Annual Deficit as percentage of GDP.	0.004	3.25	-10.09	13.66	OECD.
Welfare Spending	Social security transfers as percentage of GDP.	13.46	3.72	3.49	23.66	Comparative Welfare State Data Set.
GDP	Economic growth adjusted for purchasing power parity and inflation.	2.95	2.89	-7.1	37.6	Comparative Welfare State Data Set.
VAT_Date (D)	Dummy. Implementation date of Value-added taxes.	0.019	0.13	0	1	Consumption Tax Trends OECD (2012).
Total Taxation	Revenue from all taxes as percentage of GDP.	35.19	7.46	19.13	52.25	OECD Revenue Statistics.
Taxes on Specific Goods and Services	Taxes on specific goods and services as percentage of total tax revenue.	12.57	5.10	6.25	36.36	OECD Revenue Statistics.
General Taxes on Consumption	General Taxes on Consumption as percentage of total tax revenue	15.19	5.38	0	26.12	OECD Revenue Statistics.

Table 1: Definitions, Summary Statistics and Sources for all Variables.

To date, most of the literature on taxation has focused on different measures of consumption taxes such as consumption taxes as a percentage of GDP, Average Effective Tax Rates (AETRs) on Consumption, and Implicit Tax Rates on Consumption. The particular measure we use is consumption taxes as a percentage of total taxation. The measure certainly does not tell us



everything about the average household consumption with respect to the income source, but it is a simple measure good for assessing the burden of a particular class of taxes. In the OECD classification, consumption taxes are mainly of two types:

• General taxes on consumption. This category includes Value Added Taxes (VAT), the Goods and Services Tax (GST), Sales Taxes, and other general taxes on goods and services.

• Taxes *on specific goods and services*, such as excise taxes, customs and import duties and taxes on specific services.

The former is generally regressive and imposes a greater burden (relative to income and wealth) on lower income groups. The latter is fundamentally redistributive, and levied on customs and import duties (luxury goods and services). Figure 1 illustrates that on average, consumption taxes as a share of total taxation have slightly fallen from about 31.55 % in 1970 to about 27.22% in 2003. In general, the variable of consumption taxes is almost stationary and stays relatively stable over time for countries in our sample. The relative fall in consumption taxes in the 1970s was, however, balanced by an increase in income taxes (See: OECD Report 2007).



Figure 1: Consumption tax trends

Despite the significant decline in taxes on specific goods and services from the early 1970s onwards (Dot line), the variable of general taxes on consumption has grown steadily from 13.71% to 17.58% (Dash line). Most of this increase is due to the role that value added taxes have played in the development of consumption taxes across all OECD countries. It is important to note that value added taxes take a higher proportion of lower incomes. Additionally, VAT has roughly produced two-thirds of total consumption taxes in recent years. By this reasoning, we suggest that total consumption taxes are necessarily regressive.

The correlation between general taxes on consumption and taxes on specific goods and services is approximately (-0.89). At the beginning of the period, taxes on specific goods and services roughly produced 57% of total consumption taxes, compared with 35% at the end of the period. From 1970 to 2003 the share of general taxes on consumption to total consumption taxes increased from 43.44% to 64.60%. Perhaps most importantly, Figure 1 indicates that consumption taxes have become essentially regressive over time.

Country	Mean	St.Dev	N
Australia	25.58747	2.346841	34
Austria	30.39979	3.068814	34
Belgium	25.58821	2.877242	34
Canada	25.51359	1.774819	34
Denmark	32.92635	2.109317	34
Finland	32.72394	2.857267	34
France	28.99441	3.671377	34
Germany	26.25374	1.518321	34
Ireland	41.50259	3.978513	34
Italy	26.26924	3.57539	34
Japan	14.76529	2.612148	34
Netherlands	24.37012	1.780987	34
New Zealand	27.70453	5.041744	34
Norway	35.39368	3.098718	34
Portugal	42.83045	2.655667	29
Spain	25.67822	2.735943	27
Sweden	24.63344	1.911261	34
Switzerland	20.98585	2.377072	34
United Kingdom	29.19603	2.939695	34
United States	15.87679	1.178127	34
Total	27.77049	7.341285	668

Table2: Descriptive Sstatistics. Consumption Taxes as Percentage ofTotal Taxation. Country List.

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Table 2. Provides descriptive statistics of consumption taxes. Taxes on consumption have been high in countries such as Austria (30.39), Denmark (32.92), Finland (32.72), Ireland (41.50), Norway (35.39) and Portugal (42.83), and low in countries such as Japan (14.76), Switzerland (20.98) and the United States (15.87). The OECD average of taxes on consumption between 1970 and 2003 is 27.77 points.

II-Methodology

We use annual data for 20 OECD countries from the years 1970 to 2003 and present ordinary least squares (OLS) results. The empirical analysis employs panel data using fixed effects in order to account for countryspecific unobservable factors. Adding country-fixed effects essentially makes our estimation rely exclusively on temporal variation in the data. One further important aspect is the choice of the method of estimation. Our dependent variable is consumption taxation as a percentage of total taxation. Since the chosen dependent variable exhibits noticeable time stability, we include a lag of the dependent variable among the regressors. There are several reasons for that: 1. the inclusion of the lagged dependent variable tends to mitigate potential omitted variable bias and to eliminate serial correlation of the errors (Beck et al. 1993 and Finkel 1995). 2. the use of the lagged dependent variable provides a better dynamic in which the influence of the previous year's value is explicitly assessed.

We employ the Beck and Katz (1995) proposed method for estimating Time-series Cross-sectional models that produces consistent errors estimates in the presence of panel heteroscedastic error. The method retains OLS parameter estimates but replaces the OLS standard errors with panelcorrected standard errors (PCSEs). The error term is presumed to be heteroskedastic and contemporaneously correlated across units (countries). The strength of the method is that PCSEs allow for the correct computation of confidence intervals and statistical tests under conditions of panel heteroscedasticity and contemporaneous correlation of the errors. We therefore regress the dependent variable on the lagged dependent variable, independent variables and period dummies. The basic time-series crosssectional model we estimate has the following appearance:

 $Tax_{it} = \alpha_0 + \gamma Tax_{i,t-1} + \sum \beta_k X_{kit} + \sum \alpha_i C_{it} + \varepsilon_{it}$

where *i* refers to the cross-sectional units, *t* to the time units, *k* to the number of explanatory variables, β_k to the slopes of the explanatory variables, α_k to the intercepts for each country, γ to the slopes of the lagged dependent variable, Tax to the dependent variable, $Tax_{i,t-1}$ to the lagged dependent variable, X_{kit} are the explanatory variables, C_{it} are the country dummy variables, α_0 to the general intercept and ε is the independent random error term normally distributed around a mean of θ and with a variance of δ^2 .

5- Findings

The main results presented in Table 3 are based on estimating several models with a mainstream *Social democratic government* as the main determinant of consumption taxes. The estimation results for consumption taxes are based on ordinary least squares (OLS) with panel-corrected standard errors (PCSEs). In all models, we present the estimates of the lagged dependent variable and the main variables of interest first, immediately followed by their interactions. Then we produce the estimates for the control variables. The first column in Table 3 contains the estimates for the main explanatory variables: *Median voter, Globalization, Social democratic government,* and, two and three term interactions between these variables.

Dependent Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Lagged dependent veriable	0.866	0.869	0.871	0.854	0.867	0.826
Lagged dependent variable	(0.024)***	(0.024)***	(0.025)***	(0.025)***	(0.023)***	(0.024)***
Modian votor	-0.088	-0.081	-0.080	-0.098	-0.083	-0.072
	(0.039)**	(0.037)**	(0.038)**	(0.039)**	(0.038)**	(0.036)**
Clobalization	-0.058	-0.052	-0.067	-0.048	-0.053	-0.051
Giobalization	(0.029)**	(0.029)*	(0.031)**	(0.030)	(0.028)*	(0.028)*
Social democratic	-0.136	-0.115	-0.133	-0.137	-0.122	-0.145
government	(0.050)**	(0.049)**	(0.050)**	(0.050)**	(0.047)**	(0.049)**
Madian votorVClobalization	0.001	0.001	0.001	0.001	0.001	0.001
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Soc_demXGlobalization	0.002	0.001	0.002	0.002	0.002	0.002

Table 3: The Determinants of Consumption Taxes

	(0.001)**	(0.001)**	(0.001)**	(0.001)**	(0.001)**	(0.001)**
	0.003	0.002	0.002	0.003	0.002	0.003
Soc_demXMedian voter	(0.001)**	(0.001)**	(0.001)**	(0.001)**	(0.001)**	(0.001)**
	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
Soc_demXMedian	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
		0.020				
Welfare State		(0.027)				
			0.233			
GDP Growth			(0.191)			
				-0.059		
Total Taxation				(0.025)**		
					2.173	
VAT_Date					(0.341)***	
						-0.065
Deficit						(0.018)***
Adjusted R-Squared	0.97	0.98	0.97	0.97	0.97	0.98
Ν	648	645	648	648	648	399

Notes: Ordinary least squares (OLS) estimation with panel-corrected standard errors from Beck and Katz (1995). Numbers in bold are estimated coefficients; Standard errors are in parentheses.* significant at the 10 percent level. ** significant at the 5 percent level. *** significant at the 1 percent level. All models include country fixed effects. We performed a modified Wald test for panel-specific heteroscedasticity.

The starting point for this article's exploration of the politics of consumption taxes is our first hypothesis: Under the pressure of globalization, social democratic governments are expected to shift the tax burden to regressive consumption taxes. The relationship between globalization and social democratic governments is captured by these variables themselves and by their interaction. The negative and significant coefficient for *Social democratic government* reflects the fact that social democratic governments in a world unconstrained by economic and noneconomic forces tend to shift the tax burden away from consumers. In fact, the negative coefficient supports the argument that social democratic governments are more (less) favourable to progressive (regressive) forms of taxation than their conservative counterparts. The effect of *Globalization* is

almost significant at the 95% confidence level and the coefficient is negative (in Model 1), indicating that globalization forces tax rates down in general.

The effect of the parameter (Soc demXGlobalization) on the interaction between the two terms, Social democratic government and Globalization, is predicted to be positive, which is in keeping with hypothesis 1 that social democratic governments are associated with higher levels of consumption taxation when globalization is pronounced. This implies that globalization has made increasingly it difficult for social democratic governments to rely exclusively on taxes on mobile factors. Thus, tax systems are becoming regressive in the sense that more of the burden is shifted from mobile factors to immobile factors such as consumption. In this case, social democratic governments are not able to modify their tax policy to be closer to the tax policy ideal, which is a progressive form of taxation. Interpreting the coefficient on Soc demXGlobalization presented in Model 1, the effects of social democratic governments on consumption taxes is lowest when globalization is at its minimum value of 34.43. A shift from the minimum value of *Globalization* (34.43) to its maximum value (93.64) is expected to influence social democratic governments to increase consumption taxes by 11% of total taxation. As a result, globalization exerts a significant impact on social democratic governments' tax decisions.

Our baseline hypothesis implies that other factors being equal, the further to the left the median voter is expected to be, the lower is the tax burden on consumption. The position of the median voter has a statistically and substantively negative coefficient indicating that governments tend to reduce the levels of consumption taxation as the median voter moves to the left. Consistent with our theoretical expectations, the median voter would demand redistributive policies by moving to the left. The coefficient on the interaction term Soc_demXMedian voter is meaningful but a more intuitive explanation of the variable's effect can be provided. As argued in the previous sections, if the median voter moves to the left, social democratic governments are expected to promote extensive welfare provisions by relying upon consumption taxes. The positive coefficient suggests, quite intuitively, that the median voter is willing to put up with highly regressive taxation if they expect to receive welfare benefits back. A shift from the minimum value of the position of the median voter (19.41) to its maximum value (89.35) makes it possible for social democratic governments to be



associated with higher consumption taxes by 19% of total taxation. As a result, the positive coefficient on *Soc_demXMedian voter* implies that as the median voter moves to the left, social democratic governments are more likely to shift the tax burden to consumption.



Figure 2: The Effects of Social Democratic Government Conditional on Voter Position for Minimum and Maximum Values of Globalization

The second hypothesis in this article proposes the existence of a threeway interaction between *social democratic government, median voter* and *globalization*. The interaction is introduced into the analysis in the conventional way. The coefficient on the interaction term *Soc_demXMedian voterXGlobalization* is negative and strongly significant (in support of hypothesis 2), but very small. Testing hypothesis 2 requires assessing the effects of social democratic governments at different values of the position of the median voter when globalization is pronounced (for our purposes, globalization is at its maximum value of (93.64). In line with hypothesis 2, a shift from the minimum value of *median voter* (19.41) to its maximum value (89.35) is expected to influence social democratic governments to reduce the levels of consumption taxes by 5%. This seems an intuitive result. The

negative coefficient is consistent with Ward et al's (2011) ideological explanation; they argue that social democratic governments will not be constrained by economic globalization if the expected position of the median voter is far enough to the right. In this case, social democratic governments should respond to the preferences of their core constituencies by decreasing forms of taxation incident on consumers. It, therefore, makes sense to control for the existence of some policy options in our analysis. As mentioned above, regressive consumption taxes impose more of a burden than progressive taxes on lower income groups. There is a good reason to believe that social democratic governments fear severe electoral costs; as a result, even if globalization moves the median voter to the left, social democratic governments reduce regressive taxes on consumption. This is because, under the pressures of globalization, the median voter and/or core supporters are less likely to carry the burden of financing the welfare state (given uncertainty about the position of the median voter).

The inclusion of the lagged dependent variable enables us to capture the long-run effect of the three-way interaction term. In all models, the lagged dependent variables are highly significant (at the 99 percent level of confidence). For example, in Model 1, for the lagged dependent variable, we obtain a value of $0.866 (0.024)^{***}$. The short-run effect of the three-way interaction on consumption taxes is roughly -0.00003, while the long-run -0.0000357/(1-0.8660872) =-0.0002667 (0.0001)**. response is Furthermore, the long-run effect of the interaction (Soc demXMedian voterXGlobalization) remains negative and significant. The long-run effect of Soc_demXMedian voterXGlobalization is relatively large indicating a strong downward impact on consumption taxes - the long-run effect is roughly 7 times larger than the short-run effect.

We turn now to discuss briefly the estimates for the control variables. In Model 2, the estimated coefficient for *welfare state* has a positive impact (as is expected), though its estimate is not significant. The coefficient indicates that governments are more likely to choose to maintain welfare state benefits but fund them by taxing consumption. In Model 3, the positive coefficient for *GDP growth* implies that richer countries can afford to tax consumption more heavily than poorer countries. The coefficient on *Total taxation* is negative and significant indicating that strong state capacity helps governments to collect more revenues from different sources of taxes,

thereby making it possible for the tax burden to be shifted away from final consumers. In Model 4, the coefficient for the implementation date of value added taxes (VAT_date) is positive and substantively large. It shows that the spread of value added taxes has been the most important development in taxation in the OECD countries.¹ In Model 5, *Deficit* exhibits significantly negative effects on consumption taxes, indicating the trade-off between running large public deficit and softening the tax burden on the population, as expected.

6- Concluding remarks

Globalization strongly affects domestic tax policy making. Governments have a strong incentive to raise income from taxing mobile and immobile factors to redistribute income and to maintain a high level of public good provision. This is particularly important because the distribution of the tax burden is closely related to the ideological characteristics of governments which are also reflected in their public policy choices. Our main contribution is to emphasize the political prominence of social democracy. Behind our immediate goal of exploring the determinants of consumption taxes, we show how strongly social democratic governments feel limited by political and economic constraints they face. Our argument is broadly in line with recent arguments on party competition. The reported empirical results suggest that if the position of the median voter is expected to be far enough to the right, social democratic parties will be less constrained by economic globalization (in support of the Ward et al.'s (2011) argument). In this case, social democratic governments will lower the levels of consumption taxation in order to reduce the regressive burden levied on final consumers.

¹⁻ In other words, using VAT as one the most spread forms of consumption taxes, it now accounts for roughly 20 percent of overall taxation in the OECD member countries, is an important tax policy in prompting international competitiveness because of its border tax adjustments effect.

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