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## Tax mixes and the size of the welfare state: causal mechanisms and policy implications

Steffen Ganghof\*, University of Mannheim *Max Planck  
Institute for the Study of Societies, Cologne, Germany*

**Summary** This paper questions the argument that strong and early reliance on ‘regressive’ taxes (consumption and payroll taxes) made it politically easier to build and maintain a large welfare state. It develops an alternative perspective which differs in two respects. First, a crucial ‘advantage’ of regressive taxes is that they imply moderate capital taxation, but this can also be achieved *within* income tax. Second, the direction of causality moves largely *from* high revenue needs *to* strong reliance on at least one of the two major regressive taxes, rather than the other way round. The paper aims to show that this alternative argument provides a better explanation of quantitative data patterns as well as the cases of Denmark, New Zealand, South Korea and the United Kingdom. Policy implications are also discussed: policymakers have good reason to defend the progressivity and revenue-raising potential of the income tax, and in so doing may require greater European tax coordination.

**Key words** capital taxation, EU tax harmonization, tax mixes, welfare state development, welfare state retrenchment

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### Introduction

It is widely believed that a ‘regressive’ tax mix – that is, high revenue shares of consumption taxes and social security contributions (payroll taxes) – has been conducive to building and maintaining large tax/welfare states.<sup>1</sup> Recently, this argument has been defended by Wilensky (2002: chs 10, 12) and, in more detail, by Kato (2003). Kato’s general claim is that ‘a revenue shift to regressive taxes makes it politically easier to maintain a large public sector’ (2003: 51), and that in Europe ‘a mature welfare state is closely connected to a larger reliance on regressive taxation’ (2003: 112). More specifically, she argues that ‘the development of a tax state and a welfare state is path-dependent upon the development of the state’s funding capacity’ (2003: 160). Those advanced industrial countries that introduced ‘regressive’ taxes, especially value-added taxes (VAT), early on, thereby

created a revenue-raising capacity which helped to create large welfare states and to defend them in periods of budget deficits. Since this argument focuses on the mix between ‘regressive’ and ‘progressive’ taxes, I refer to it as the *tax mix argument*.

Although the scope of the argument is qualified in various ways, it could provide a theoretical justification for further shifts of the tax burden away from income and property taxes. It thus seems to stand in opposition to arguments that progressive income taxes are conducive to maintaining the welfare state because they tend to reduce the relative tax burden on lower wages (Kemmerling, 2005). Hence the tax mix argument demands careful evaluation.

The aim of this article is to scrutinize and challenge the tax mix argument. In order to do this, I shall focus on one particular – arguably the most important – characteristic of ‘regressive taxes’: the fact that they imply moderate capital taxation. I advance an

\* Author to whom correspondence should be addressed: Steffen Ganghof, Max Planck Institute for the Study of Societies, Paulstrasse 3 D-50676, Cologne, Germany. [email: ga@mpifg.de]

alternative argument, which I call the *tax structure argument*. The two arguments share the assumption that taxing capital is relatively costly in economic, political and/or administrative terms, but the tax structure argument differs in two main respects.

1. It adopts a *broader conception of tax structure*, which encompasses not only the mix between institutional types of taxes, but also the internal structure of these taxes – most notably the income tax. I argue that strong reliance on ‘regressive taxes’ is not the only way to moderate the overall tax burden on capital. Another way is to grant privileges within income taxes to the taxation of income from capital.
2. A related point concerns the *direction of causality*. The tax mix argument postulates a causal chain going from a country’s tax mix to its revenue-raising capacity and from there to the level (and change) of welfare spending. I contend, however, that the main direction of causality is reversed: high welfare spending implies high overall taxation, which in turn implies high revenue from major types of taxes, including ‘regressive taxes’, provided that the constraints on capital taxation are heeded.

The next two sections elaborate on these two differences. The fourth section goes on to link quantitative and qualitative observations in order to show that the combination of these two types of observations can be better and more coherently explained by the tax structure argument. The final section summarizes the main conclusions and opens up future discussion on policy implications at both the national and the EU level.

### Regressive taxes and moderate capital taxation: how strong is the connection?

This section shows that there is no strong connection between the ‘reliance on regressive taxes’ and the moderation of capital taxation. I shall start by justifying my focus on this one characteristic of regressive taxation.

#### *Why focus on lenient capital taxation?*

Why is it useful to focus on one characteristic of ‘regressive taxes’? After all, the claims of the tax mix

argument are based on several characteristics of regressive taxes and the causal mechanisms associated with these. Most notably, these taxes are often not progressive, they are often less ‘visible’ than direct taxes, they are often earmarked for social programmes, and they shift the tax burden away from capital (Wilensky, 2002: chs 10, 12; Kato, 2003: 7, 14, 52, 106, 199, *passim*). The reason for a more focused analysis follows from two problems of the existing literature.

The first problem is a form of empirical eclecticism. Because there are many ways in which ‘regressive taxes’ can be thought to be conducive to states’ revenue-raising capacity, and because there are two main types of such taxes, namely payroll and consumption taxes, which in part have different characteristics, researchers tend to focus on whatever characteristic it is that accounts for the data at hand. For example, Kato’s (2003) quantitative analysis, and many of her case-studies, focus on consumption taxes and on the characteristics of low visibility and lenient capital taxation. Because this particular focus is not right for France (see below, pp. 364), Kato’s (2003: 94–112) explanation of welfare state resilience in France concentrates on the flatness of social security contributions and income taxes. This may ‘save’ the tax mix argument, broadly defined, but the empirical picture is diluted.

Related to this is a second problem: a lack of theoretical precision when it comes to specifying causal mechanisms and hypotheses. Proponents of the tax mix argument mention many potential ‘advantages’ of regressive taxes but do not always clearly explain why, and under what conditions, a particular characteristic is conducive to states’ revenue-raising capacity. Three examples:

- It remains unclear in Kato’s (2003) analysis why flatness strengthens states’ revenue-raising capacity.
- Wilensky (2002: 392) claims that income and property taxes are a ‘drag on economic growth’ but does not discuss whether the size of the dragging effect varies and why.
- Finally, as to the issue of visibility, it was suggested long ago that middle-class tax revolts in countries like Denmark were the result of very high rates of tax increases, rather than high levels as such (Heidenheimer et al., 1975: 249), but this difference is often ignored.

To increase theoretical and empirical rigour, therefore, it seems useful to complement existing studies

with more detailed analyses of particular characteristics of regressive taxes.

But why focus on the characteristic of lenient capital taxation? The main reason is that a large political economy literature considers it to be the crucial issue (Przeworski and Wallerstein, 1988; Lindert, 2004). Most types of capital income are relatively costly to tax for economic, political and/ or administrative reasons (Ganghof, 2006). Taxes on capital generally tend to reduce savings and investment and hence economic growth. Moreover, certain important types of capital income – most notably the returns to owner-occupied housing – have also been difficult to tax for electoral reasons. Finally, the taxation of many types of capital income, for example capital gains, gives rise to high administrative costs. As a result of these costs, one crucial condition of building and maintaining large welfare states seems to be moderate capital taxation.<sup>2</sup>

Kato, too, seems to believe that the tax mix argument hinges on the characteristic of moderate capital taxation. This is because she acknowledges that there are so-called direct consumption taxes, which are identical to conventional income taxes in terms of visibility, progressivity and lack of earmarking for social programmes, but which exempt a significant part of what is conventionally called capital income from taxation. More precisely, they exempt some standard return to saving ('normal' capital income) and they only tax income from capital that goes beyond that standard return ('above-normal' capital income) (Ganghof, 2006).<sup>3</sup> The implementation of direct consumption taxes, Kato concedes, 'may thwart the existing association' between regressive taxation and large welfare states (Kato, 2003: 199). Clearly, if the exemption of some capital income from income taxation alone is sufficient to 'thwart' the tax mix argument, the issue of capital taxation must be crucial.

### *The connection between 'regressive taxes' and moderate capital taxation*

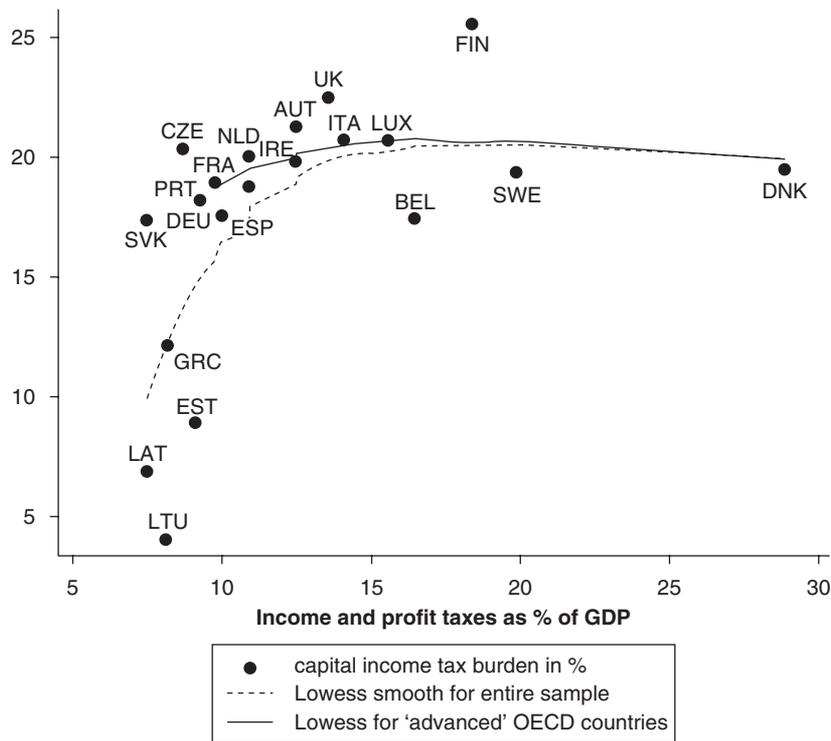
Proponents of the tax mix argument seem to see a strong connection between 'regressive taxes' and moderate capital taxation, because they rely on an 'institutional' and fairly rough categorization of taxes. Property taxes and income taxes are taken to indicate high capital tax burdens, as they include capital – or income from capital – in the tax base. Conversely, payroll and sales taxes are seen as leading to low capital tax burdens, as they exempt all or some

capital income. Yet these equations are too simple. The reason is that most real-world income taxes – which are generally more important than property taxes in revenue terms – differ from textbook income taxes precisely in that they grant large tax privileges to capital. This is certainly no new observation. The literature on 'tax expenditures' for pension savings, owner-occupied housing or business investment provides ample evidence for this claim (e.g. Ervik, 2000; Ganghof, 2006). It is often not realized, though, that granting tax privileges for capital within the income tax is, to some extent, economically equivalent to shifting the tax burden away from the income tax and onto payroll and consumption taxes.<sup>4</sup> In other words, 'tax expenditures' are not only forms of hidden welfare provision but also have a straightforward taxation rationale.<sup>5</sup>

This has long been understood in the political economy literature. Direct consumption taxes have been regarded as an elegant way to reconcile efficiency and equity (Przeworski and Wallerstein, 1988); and OECD countries' traditional policy of combining fairly high marginal tax rates on capital income with an 'investment-friendly' tax base have been regarded as (imperfect) approximations of fully fledged consumption taxes (Swank, 1992). This insight is not sufficiently acknowledged by Kato (2003: 199). For while it is true that few countries implemented direct consumption taxes consistently, the aggregate tax burdens on capital implied by OECD countries' actual 'income taxes' were nevertheless often as low as – or even lower than – they would have been in the case of consistent implementation (Ganghof, forthcoming).

Moreover, since the early 1980s policy makers in OECD countries have tried to develop systematic and efficient 'hybrids' between direct income and consumption taxes (Ganghof, 2006). The best example is the 'dual income taxes' operated in the Nordic countries (Finland, Norway and Sweden) and, for some years, in Italy. In the Nordic countries, only wages – and, in part, 'above-normal' capital income – are subjected to progressive tax rates of up to 60 percent. 'Normal' capital income, while not exempted completely, is taxed at low proportional tax rates of 25 percent.

Other OECD countries have chosen more differentiated forms of capital taxation, but the most important result is the same: marginal and effective income tax burdens on capital and wages can be determined independently within broad limits. This undermines any strong relationship between 'regressive' tax mixes



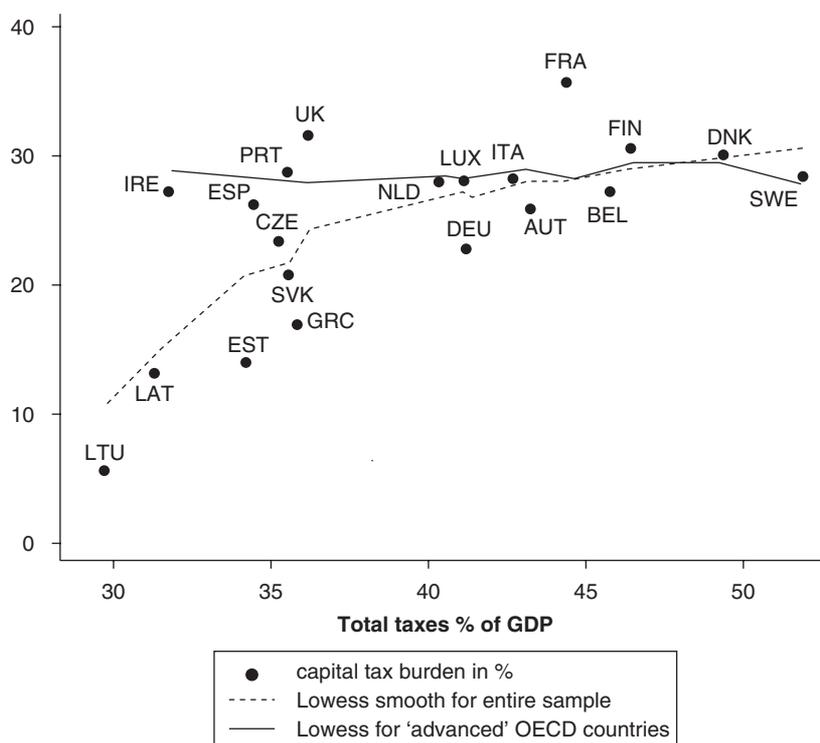
**Figure 1** Income and capital income tax burdens in EU countries, 1995–2003

Notes: All values are averages for the period 1995–2003.

Source: Eurostat (2005).

and moderate capital taxation. To see this empirically, let us investigate the relationship between the level of *income* taxation and the level of *capital income* taxation. The income tax ratio (revenues as % of Gross Domestic Product [GDP]) is provided by OECD (2004) and Eurostat (2005). Measuring the effective tax burden on capital income is more difficult. One has to split personal income tax revenue into its capital and labour components and then express the combined revenue of corporate and personal capital income taxation as a percentage of the underlying tax base. An adequate splitting requires data on the relative shares of labour and capital in personal income tax revenue, which is difficult to come by (Carey and Rabesona, 2002). Eurostat (2005) has gathered this data on the basis of national sources. I therefore use Eurostat's measure of the average effective tax rate on capital income, which is available for 20 EU member states and the years 1995–2003.

Figure 1 shows the scatterplot of income tax ratios versus the effective tax rates on capital income. It superimposes two 'Lowess smooths' (locally weighted linear regression smoother); that is, forms of nonparametric regression which do not assume particular functional forms (Cleveland, 1979). One smooth is based on all 20 cases, the other on those 'advanced' OECD countries also covered by Kato's (2003) regression analysis.<sup>6</sup> For this intersection of EU and OECD countries, the figure shows no relationship whatsoever between total and capital income taxation. The broader comparison suggests that for income tax burdens of up to around 10 percent of GDP, there may be a fairly strong relationship. Beyond the 10 percent level, however, the income tax burden seems to fall mainly on wages. In fact, effective capital income tax rates in Denmark, Sweden and Belgium are lower than in Austria, the UK or the Czech Republic, even though income tax burdens are much higher.



**Figure 2** Total and capital tax burdens in EU countries, 1995–2003

Notes: All values are averages for the period 1995–2003.

Source: Eurostat (2005).

Finland is an exception to this pattern. However, the high Finnish tax rate on capital *income* is balanced by a rather low tax rate on *stocks*. This is revealed by Figure 2, which displays the scatterplot of total tax ratios (tax revenues as % of GDP) versus the average effective tax rates on capital (income and stocks), again adding the Lowess smooths for the entire sample and the subgroup. The general data pattern is similar to that in Figure 1: the narrow comparison of the most advanced countries reveals no relationship between total taxation and the effective tax rate on capital; the broader comparison suggests such a relationship for total tax burdens of below around 35 percent of GDP.

Note that in Figure 2 the case with the highest capital tax burden is France. Because this country introduced VAT early and relies fairly strongly on consumption and payroll taxes, it is treated as an exemplar

of the tax mix argument: 'France is one of the rare countries which has [*sic*] not experienced the intense welfare backlash in Europe. At the turn of the century, France boasts a strong revenue-raising power and preserves its high social security expenditure . . .' (Kato, 2003: 111–12). As Figure 2 shows, however, moderation of capital taxation is probably not the mechanism through which France's 'regressive' tax mix increased revenue-raising capacity. In fact, a closer look at the development of France's tax structure shows that the growth in tax revenue between 1970 and 2003 – roughly 10 percent of GDP – is to a large extent due to 'progressive' taxes. Revenues from overall consumption taxation and from general consumption taxes (VAT) *decreased* by 16 and 19 percent, respectively; revenue from social security contributions increased by around 26 percent; and revenues from income and property taxes almost *doubled* (OECD, 2004).

In sum, then, the evidence in this section suggests that the relationship between 'regressive taxation' and moderate capital taxation is rather weak. The reason is that capital taxation can be – and has been – moderated within the income tax. In other words, there is a large overlap in tax base among the three major types of taxes (income, payroll and consumption) which reduces the importance of the tax mix. All three types of taxes fall heavily on wages. The fourth section of this paper presents further evidence supporting these conclusions for a broader set of advanced OECD countries. First, however, I explain in the next section the links between the issue of conceptualizing tax structure and the issue of establishing the direction of causality between tax structure and spending levels.

### Tax structures and tax levels: the problem of causal direction

I begin by discussing the general problem of establishing the direction of causality between tax structure and spending levels and then explain how this issue is related to the conceptualization of tax structure discussed in the previous section. The focus is on Kato's (2003) comparative study, which is the most comprehensive attempt to empirically establish the argument that causation goes *from* reliance on 'regressive taxes' to revenue-raising capacity. Kato uses two main empirical approaches – regression analysis and historical case-studies – which I discuss in turn.

As is well known, regression analysis is not a way of deducing causation but of quantifying already hypothesized relationships. Causal theory is prior, and if it is wrong, regression coefficients measure association not causation (Freedman, 2005: 87). Kato's (2003: ch. 1) regression analysis focuses on general consumption taxes (such as value-added taxes) but does not look at the share of these taxes in total taxation. Rather, her analysis shows that general consumption tax revenue as a percentage of GDP is positively correlated with social security expenditure. This is hardly surprising, though, because there is a plausible causal path going *from* high spending to high general consumption taxes. Kato is well aware of this, stating the competing view of causality as follows: 'a country that has a large public sector and social security expenditure tends to extract more revenue from all kinds of taxes including the general consumption tax' (Kato, 2003: 51). Slemrod (2004: 1171) dubs this the 'tax mix folk theorem'. Disagreement thus concerns the direction of

causality, which implies that little, if anything, follows from Kato's regression analysis.

Kato therefore tries to establish the direction of causality through her qualitative-historical work (Kato, 2003: 51–2). But this task is similarly difficult. The case-studies would have to show that taxes were truly exogenous, in other words, that policy makers did not make decisions on tax structure strategically with the goal of increasing or constraining spending. Yet this type of non-strategic behaviour is not only almost impossible to demonstrate in the kind of condensed case-studies provided by Kato, it is also implausible on theoretical grounds. For if 'regressive taxes' do systematically and substantially increase revenue-raising capacity, policy makers are likely to understand this and take it into account. Kato (2003) recognizes this kind of rational foresight, but wants to limit its importance to the post-1970 period (hereafter: retrenchment period). She claims that '[b]efore the early 1970s, the revenue-raising power of a regressive tax had not yet been common knowledge' (Kato, 2003: 24) and that, as a result, the strong positive causal effect of regressive taxation on revenue-raising capacity is limited to the pre-1970 era (hereafter: expansion period).

The problem is that this argument seems to greatly exaggerate the difference between the two periods. The basic differences between taxes have long been known and taken into account. Two examples follow. First, Gerring (1998: 167) observes that in the United States:

... those Democrats who adopted the cause of a federal income tax in the 1890s did so because they perceived that such an overt tax would be more difficult to collect than the traditional excise tax. The income tax was an 'honest' tax, because it was levied directly on the heads of taxpayers.

Second, Daunton (2002: 311–13) similarly reports that in the United Kingdom of the late 1950s and early 1960s the Conservatives considered shifting the tax burden from general taxation to a payroll tax and that one reason for rejecting this proposal was an expected long-run positive effect on the level of taxation. The basis of the distinction between the two periods thus seems shaky at best.<sup>7</sup> In sum, therefore, neither Kato's regression analysis nor her case-studies are able to establish a causal path going from tax mixes to taxation and spending levels. The 'tax mix folk theorem' sketched above remains the *prima facie* more plausible explanation of the relationship

between regressive taxes (especially general consumption taxes) and spending.

But why is this important for the tax structure argument defended here? The answer is that this argument assumes neither that causality goes from tax structure to spending levels nor that policy makers and/or voters were ignorant of the effects of indirect taxes before the early 1970s. The tax structure argument does not *contradict* the tax mix folk theorem but *modifies* it. In order to see this, three analytical steps are required. The first is to consider the economic logic behind this theorem as summarized by Slemrod (2004: 1171): ‘all taxes have weaknesses, and the marginal social cost [*sic*] of the weaknesses increase with the tax system’s reliance on any given tax. Therefore, revenues should be collected from a variety of taxes rather than a small number.’

The second step is to see the limits of this argument: the marginal social costs of taxation (i.e. the kind of economic, political and administrative costs already discussed) are likely to vary across different types of taxes, so that policy makers with a high revenue target are likely to rely more heavily on some types of taxes than on others. What is more, the higher the overall revenue target, the higher are the stakes in finding an efficient tax structure. Lindert (2004: 297) calls this the *budget-stakes principle*: ‘The higher the budget, the higher the marginal cost of choosing the wrong fiscal design, both economically and politically.’

The final analytical step is simply to remember the lesson of the previous section: because there is a significant overlap in base among the major types of taxes (income, payroll and sales), efficient fiscal design concerns not only the mix between these major taxes, but also their internal structure. The crucial requirement of tax efficiency seems to be ‘low effective taxes on capital’ (Lindert, 2004: 295), but this result can also be achieved within a relatively ‘progressive’ tax mix (i.e. with a strong reliance on the income tax).

Figure 3 summarizes the two different views of the causal direction: Kato’s basic argument is that ‘regressive taxes’ increase revenue-raising capacity which leads to large and resilient welfare states. The alternative view is that large welfare states have large revenue needs, which require the revenue from major taxes (income, payroll, sales) to be high. Policy makers have some leeway in choosing the relative weights of the three major taxes because their

tax base overlaps, but they are constrained as far as the overall tax burden on capital is concerned.

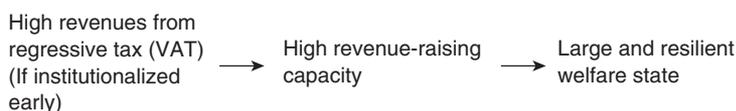
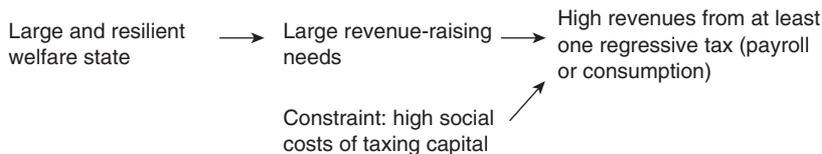
The stark contrast between the two views drawn in Figure 3 serves to clarify the difference between them. This is not to suggest that they are mutually exclusive. Indeed, even if causality goes mainly from spending levels to tax structure (as implied by the tax structure argument), this does not mean that changes in tax structure cannot at times be truly exogenous and hence contribute to higher spending (as implied by the tax mix argument).

### Linking quantitative and qualitative evidence

The previous section has tried to show that the tax structure argument is more plausible and coheres better with well-established arguments in the political economy of taxation; but what kind of evidence can be advanced in its favour? The basic problem is ‘observational equivalence’, namely, the fact that both views provide potential explanations for the same observations. As noted above, therefore, regression analysis alone would not be very useful.<sup>8</sup> Instead, the strategy adopted here is to look systematically for the observations that can discriminate between the two competing arguments. One important way to do this is to actually link quantitative and historical data and consider which of the two potential views provides the most coherent explanation of the overall data pattern.<sup>9</sup> The strategy is to show that cases which remain anomalies for the tax mix argument can easily be explained by the tax structure argument.

To paint as precise an empirical picture as possible, I shall not use an indicator of welfare state generosity as the dependent variable. The reason is obvious from Figure 3: the intermediate step in the two causal paths – the causal mechanism – is revenue *capacity* and revenue *needs*, respectively; and the best proxy of both is the total tax ratio. Hence by focusing on this variable, we bring the empirical analysis as close as possible to the causal mechanisms in question. Moreover, we reduce empirical ‘noise’ because cross-country differences in non-tax revenue, public deficits and budget composition are kept out of the picture.<sup>10</sup>

Table 1 compares the correlations between the total tax ratio and three different indicators of countries’ tax structures. It relies on OECD rather than Eurostat data (Carey and Rabesona, 2002; OECD,

**The tax mix argument****The tax structure argument****Figure 3** Two views of causal direction

Source: Own composition.

2004) because this is available for 22 countries and hence covers all the countries in Kato (2003).<sup>11</sup> The table shows the strength of the correlations in three different periods for which the relevant data are available (1975–80, 1981–90, 1991–2000). The first variable, CONSUMPTION, is general consumption taxes as percentage of GDP, which Kato uses in her quantitative analysis. The second variable, REGRESSIVE, is the sum of payroll and consumption taxes as percentage of GDP, which is what the more general tax mix argument is about. The third variable, NON-CAPITAL, is the implicit tax rate on labour and consumption as estimated by Carey and Rabesona (2002). This indicator stands for the tax structure argument because it includes the labour tax burden implied by the income tax.

Table 1 reveals that all three indicators of revenue structure are strongly and positively correlated with total taxation and that the correlation coefficient for NON-CAPITAL is substantially greater than for the other two indicators. This difference would be relatively unimportant if it only reflected the fact that NON-CAPITAL accounts for a larger share of total taxation. As argued above, however, the difference between the sizes of the correlation coefficients partly reflects a *substitutive* relationship between the major taxes – it reflects overlap in base among them.

To compare the data patterns for the three indicators of tax structure and to link these patterns to the qualitative evidence, Figure 4 shows – for the last period (1991–2000) – the overlaid scatterplots of

total tax ratios versus standardized versions of the three tax structure indicators. Most cases have fairly similar positions in the three joint distributions, but there are a number of ‘outlier’ observations. The cases that the quantitative and/or qualitative analyses identify as anomalies for the tax mix argument are labelled: Denmark; Australia and New Zealand; Ireland, South Korea and the United Kingdom. I shall discuss each of these groups of cases in turn.

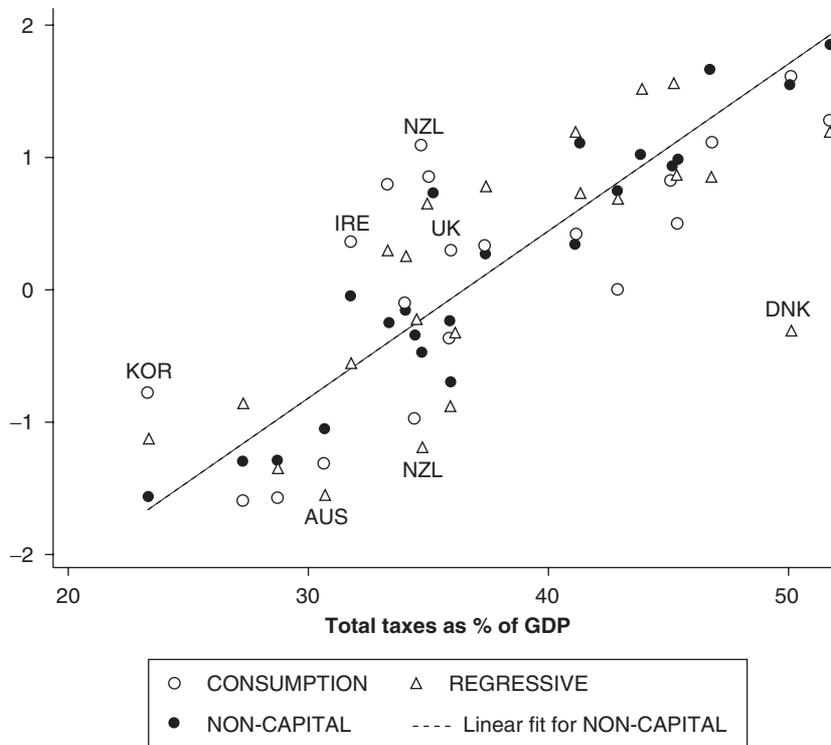
*Denmark*

The strongest outlier is the Danish observation on REGRESSIVE. The reason is that Denmark, while having a high consumption tax burden, has virtually no social security contributions. Not surprisingly, therefore, Kato (2003) treats this case as an anomaly: if progressive income taxation is inherently problematic, how were policy makers able to create an income tax burden that amounts to around 30 percent of GDP? Proponents of the tax mix argument have been unable to answer that question (Kato 2003: 197). In contrast, the tax structure argument offers a straightforward explanation. Danish policy makers have simply chosen a different way to moderate the tax burden on capital. Rather than shifting the tax burden away from the income tax, they have moderated capital taxation within it. Hence while Denmark is a strong outlier in respect of the overall income tax burden (Figure 1), it is no outlier at all in respect of the tax burdens on capital and capital income (Figures 1 and 2) or in respect of the

**Table 1** Correlates of total tax burdens, 1975–2000

	<i>Period</i>		
	1975–80	1981–90	1991–2000
General consumption taxes (CONSUMPTION)	.79	.77	.75
Regressive taxes (REGRESSIVE)	.83	.71	.74
Average effective tax rate on labour and consumption (NON-CAPITAL)	.96	.94	.95
<i>N</i>	17	22	22

*Notes:* See text. For the first period the sample size is reduced due to missing data on NON-CAPITAL.  
*Sources:* Carey and Rabesona (2002); OECD (2004).

**Figure 4** Correlates of total tax burdens in OECD countries, 1991–2000

*Notes:* For the variable definitions see text. All values are unweighted averages for the period 1991–2000. Tax structure indicators are standardized.

*Sources:* Carey and Rabesona (2002); OECD (2004).

overall tax burden on labour and consumption (Figure 4). Moreover, despite the alleged problems of increasing progressive income taxes in the retrenchment

period, Danish policy makers increased the income tax burden by one-quarter between 1975 and 2002 (Ganghof, forthcoming).

*New Zealand (and Australia)*

There are a number of cases in Figure 4 for which the observations on CONSUMPTION are surprisingly high. That is, given their reliance on general consumption taxes, the (narrow) tax mix argument should lead one to expect a substantially higher total tax burden. The most obvious of these cases is New Zealand. This case is of special interest because it is also, like Australia, a moderate outlier with respect to REGRESSIVE. Hence the narrow tax mix argument would predict a *higher* tax burden, because New Zealand's consumption tax burden is fairly high; and the broad tax mix argument would predict a *lower* tax burden because New Zealand, like Australia, has no social security contributions. Both predictions are wrong because they ignore the labour tax burden implied by the income tax. Once this is included (NON-CAPITAL), both New Zealand and Australia move closer to the regression line.

It is thus not surprising that New Zealand also remains an 'anomaly' in Kato's (2003: 148) qualitative-historical analysis. Based on the above-mentioned theoretical distinction between the expansion and retrenchment periods, New Zealand's late introduction and increase of VAT in the 1980s and 1990s should have been extremely difficult due to public resistance. In fact, however, it was 'easy' (Kato, 2003: 148). The causal mechanism which supposedly kept the revenue machine from doing its work in the 1980s and 1990s was obviously not operative. The revised prediction would be that revenue-raising capacity and, in turn, the total tax burden would greatly increase, but this prediction fails as well: New Zealand's tax burden remained moderate. Hence, the theoretical distinction between the expansion and retrenchment periods not only lacks plausibility, as already argued, it also does not work well empirically.

While the tax mix argument thus fails, a consistent alternative explanation is easy to find: New Zealand's 'neo-liberal' governments simply had a preference for both moderate spending and less progressive taxation, and they had the political power to follow this preference (Ganghof, 2006: ch. 5). These governments pursued the shift from direct to indirect taxes and the drastic flattening of the income tax as part of an overall strategy to reduce, rather than increase, spending. Conversely, when a more left-leaning coalition government gained office at the end of 1999, it increased both total taxation and the progressivity of income taxation.

*South Korea, United Kingdom (and Ireland)*

Another case with a surprisingly high general consumption tax burden (CONSUMPTION), given its very low total tax burden, is South Korea (Figure. 4). This case also resembles New Zealand in that it constitutes a further anomaly in Kato's qualitative-historical analysis, for the following reason. The process of introducing a VAT had already started in 1971 and was completed in 1976 (Kato, 2003: 188). However, '[a]lthough the Korean introduction of the VAT in 1976 was much earlier in terms of the state of economic development than the early introducers among industrial democracies, Korea has not significantly increased its revenue from VAT' (Kato, 2003: 197). Kato tries to explain this puzzle by connecting the distinction between the expansion and retrenchment periods to the distinction between industrialized and newly industrializing countries. She claims that public knowledge about the revenue-raising power of VAT was generally higher in newly industrializing countries. However, this further effort to save the tax mix argument is not only subject to the objections raised above, it also leads to yet another anomaly: there are also industrialized countries, most notably the UK and Ireland, which introduced VAT rather early – in 1973 and 1971, respectively (Kato, 2003: 25) – but did not develop large welfare states.

Consider the case of the UK, which is also included in Kato's qualitative analysis. Her account of this case can be summarized in the following propositions (Kato, 2003: 77–94):

1. 'The VAT was brought to the political agenda by members of the Conservative Party . . .' (p. 82).
2. 'The United Kingdom introduced the VAT only to enter the EC . . .' (p. 111).
3. The VAT became 'a powerful revenue machine that no policy maker expected at the time of introduction' (p. 111).
4. Neither the introduction of the VAT nor the subsequent tax rate changes had anything to do with concerns for 'securing revenue' (p. 83, see also p. 85).
5. This led to a 'weak link between revenue and expenditure' (p. 84) and hence a 'weak revenue-raising power', which 'served to restrain the growth of the public sector' (p. 86).
6. However, the 'moderate revenue-raising power' (p. 94) of the powerful revenue-raising machine has contributed to preserving the 'moderate

welfare state' (p. 111), and the failure of the Thatcher Administration to 'defund' (p. 92) the welfare state is the ultimate cause of 'the relative robustness of the UK welfare state in comparison with the one in the United States' (p. 91).

There is an obvious tension, if not inconsistency, between Propositions 5 and 6. To explain why the UK did not develop a large welfare state despite relatively early introduction of VAT, revenue-raising power has to be depicted as 'weak', but to make sense of the relatively high VAT revenues (Figure. 4) as well as the resilience of the welfare state, it has to be depicted as at least 'moderate'. But more important than this inconsistency is the fact that, upon closer examination (see Daunton, 2002: chs 9–10), the premisses 1–4 all seem highly questionable or outright false.

Consider first Propositions 1 and 3. While it is true that the Conservatives introduced the VAT in 1973 and had started to discuss this introduction much earlier, VAT introduction had already been intensely discussed by the first two Labour Governments led by Harold Wilson (1964–70). Moreover, revenue-raising power was crucial in this debate. By the mid-1960s Labour had come to see VAT mainly as 'a solution to the pressing need for more revenue' (Daunton, 2002: 294). Already, in 1966, Wilson had asked for a scheme to be prepared to implement VAT. One reason why Labour did not introduce VAT at this point was precisely the anticipation of public resistance. In 1966, the government implemented the 'selective employment tax' (SET). This was a tax on service employment and thus complemented the existing purchase tax, which excluded services. One reason for not replacing the purchase tax with a VAT was that introducing the latter was likely to be time-consuming; an interim measure was needed. Another reason, though, was political expediency: the SET promised to broaden the tax base like the VAT, and hence to supply 'a major new source of revenue', but without the 'political dangers of VAT' (Daunton, 2002: 297–8). In the event, SET turned out to be a failure, which made VAT more appealing. According to Daunton (2002: 300), therefore, the discussions and policies of the Labour government influenced the Conservative Party by making the merits of VAT 'more apparent as a way of raising revenue and converging with Europe.'

Consider next Propositions 2 and 4. While the introduction of VAT by the Conservatives was obviously

encouraged by a desire to conform to EC rules, 'the shift to indirect taxes also had domestic origins' (Daunton, 2002: 314): it provided the basis for other tax reforms, most notably by permitting a reduction in personal and company taxation. Related to this, it is unclear what it means to say that increases in VAT rates were unrelated to revenue concerns (Proposition 4). After all, the VAT is not like an environmental tax which mainly serves to influence people's behaviour; its whole point is to raise revenue as efficiently as possible. Therefore, the best explanation of the behaviour of the Conservative government is the same as for their neo-liberal counterparts in New Zealand and elsewhere: they were aware of, and deliberately used, the revenue-raising power of the VAT, but they preferred to reduce direct taxes rather than to increase the total tax burden.

## Conclusions and policy implications

Since I have been critical of the tax mix argument and especially its recent defence by Kato (2003), let me begin the conclusion by highlighting the area of agreement. Kato is certainly right to emphasize that there is a clear and systematic association between 'regressive taxes' (payroll and indirect consumption taxes) and the size of welfare states. Redistribution seems to happen mainly on the expenditure side of the budget. On the revenue side, the main task is to raise sufficient revenues as efficiently as possible; general consumption taxes (VAT) especially are clearly an important way to do this.

I have argued, however, that Kato's explanation for these observations is flawed. First, its conception of tax structure is too narrow, for it underestimates the extent to which the capital tax burden can be limited within the income tax. Second, Kato's effort to show that causality goes from tax mixes to revenue-raising capacity, hence welfare state size, is based on implausible theoretical assumptions and leaves many cases unexplained. Kato fails to establish her central claim that the 'relationship between a revenue reliance on regressive taxes and the size of the welfare state' is '*political*, rather than *financial*' (Kato, 2003: 51, emphasis in the original).

The alternative explanation sketched in this paper – the tax structure argument – highlights this financial relationship. Strong reliance on at least one regressive tax (payroll or indirect consumption taxes) is to a large extent the consequence of the conjunction of two factors: (a) the preference of policy makers and

their electorates for high social spending; and (b) the constraints on the taxation of capital. I have tried to show that this explanation is more plausible and has greater explanatory power. It not only leads to better quantitative 'predictions', but also provides straightforward explanations for cases that remain anomalies in the tax mix argument. On the one hand, it explains why a country like Denmark was able to build a generous welfare state despite its strong reliance on a huge income tax, a crucial aspect being that this 'income tax' had always implied moderate capital taxation. On the other hand, it can also explain cases like the UK or New Zealand. In these countries Right-leaning governments introduced and increased regressive taxes relatively early and/or easily, but this did not lead to large welfare states.

The explanation offered here highlights a kind of asymmetry not sufficiently acknowledged by the tax mix argument: while policy makers with strong spending commitments have no choice but to strongly rely on regressive taxes, those with weak spending commitments do have a choice but may choose regressive taxation nevertheless – for the same reason that they choose lower spending. This observation is, of course, well in line with studies showing that party ideology (in conjunction with political institutions) plays an important role in shaping the size and form of the tax/welfare state – in both the expansion and the retrenchment phase (e.g. Allen and Scruggs, 2004; Ganghof, 2006).

While my arguments about the direction of causality provide a general challenge for the tax mix argument, the analytical focus on the issue of moderate capital taxation certainly limits the scope of the criticism presented here. There may be other causal mechanisms that link regressive taxes and large welfare states. However, many efforts at corroboration suffer from the very same problems identified here. Consider the argument that visible taxes lead to greater middle-class tax antipathy as an example. For one thing, this argument also has to face obvious anomalies such as the Danish case, the electoral 'tax revolts' of the 1970s notwithstanding (Ganghof, forthcoming). For another, there have been few successful efforts to isolate the causal effect of visibility empirically. One exception is Dusek (2002) who uses the split of payroll taxes between employers (less visible) and employees (more visible) as a measure of visibility. Based on a sample of 89 countries he finds that the effect of the split is either insignificant or goes

against the visibility hypothesis. Hence it seems doubtful that other characteristics of the regressive taxes can 'rescue' the tax mix argument.

Part of the reason why this is important is policy implications – at both national and EU levels. The tax mix argument could be seen as providing a theoretical rationale for further shifts toward 'regressive' tax mixes in order to increase the revenue-raising capacity of the welfare state. In contrast, the tax structure argument leads to a very different perspective. It argues that capital taxation is severely constrained so that differences in total tax levels between advanced industrial countries are mainly accounted for by direct or indirect taxes on wages. But we know that high taxes on wages have adverse effects on employment (Cusack and Beramendi, 2006). Hence one crucial issue of welfare state reform is whether labour taxes have to be cut across the board in order to increase employment or whether it is sufficient to provide targeted tax cuts for specific groups, most notably the low-skilled workers (Kenworthy, 2004; Kemmerling, 2005). If there is any truth in the strategy of targeted tax cuts, then the progressive income tax seems to play an important role in increasing the resilience of the welfare state, for two reasons. First, progressive income taxes, by nature, do imply lower relative tax burdens on low-skilled workers. Second, increasing or at least maintaining revenues from progressive income taxation can provide revenue for achieving targeted cuts in payroll taxes for low-skilled workers.

Consider the example of the Slovak Republic. Instead of increasing its very low income tax burden (Figure 1), it replaced, in 2003, the progressive personal income tax with a flat-rate tax of 19 percent. This led to revenue losses, which were compensated by increased indirect consumption taxes. In the light of Slovakia's very high unemployment rate, though, even the OECD recommended that the government should prioritize substantial reductions in payroll taxes for low-income earners. Yet given the regressive tax reforms already implemented, the authorities argued that 'fiscal constraints mean that this must be delayed' (Brook and Leibfritz, 2005: 14). Regressive tax reform may thus hinder, rather than facilitate, efforts to increase employment despite substantial tax burdens.

Finally, this insight also has important consequences for policy at the EU level (Ganghof and Genschel, forthcoming). The reason is that strong tax competition on corporate tax rates makes it more difficult for governments to maintain progressive

income taxes. To see why this is the case, recall that ideal-type progressive consumption taxes exempt the 'normal return' on capital, but do tax 'above-normal' business profits at the same rate as wages. This is important because the taxation of above-normal profits provides a kind of safeguard for the progressive taxation of wages. For if the top rate on profits is much below the top rate on wages, high-income taxpayers have greatly increased incentives for arbitrage and tax avoidance. The same logic applies to more pragmatic income tax models like the Nordic dual income tax: even if normal capital income is taxed at low proportional tax rates, above-normal profits should ideally be subjected to the same top tax rate as wages to reduce tax avoidance. The problem is that corporate tax competition seems strongest with respect to above-normal profits. Unfettered competition thus creates indirect but significant pressure to reduce and flatten personal income taxes. Germany's recent tax reforms exemplify this pressure (Ganghof, 2006: ch. 7). Hence, if it is seen as worthwhile to defend some degree of progressive income taxation, there may also be a case for some form of corporate tax rate harmonization in the EU.

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### Notes

- 1 For the purposes of this paper, I use the terms 'social security contributions' and 'payroll taxes' interchangeably.
- 2 The relative costs of taxing labour and capital can vary systematically across countries. For example, it has been argued that a country's type of capitalism (Hall and Soskice, 2001), and especially its wage bargaining system, has a systematic effect on taxation regimes (e.g. Cusack and Beramendi, 2006).
- 3 To understand the distinction between normal and above-normal capital income, an example may be helpful: If an investor buys a machine, she wants this investment to generate at least the return she would have received from buying low-risk or even risk-free government bonds. This risk-free return to wealth is the normal return to capital. But what we generally call 'capital income' also includes above-normal returns, including things such as returns to innovation, returns to establishing a monopoly in some market or returns to entrepreneurial skill. Bill Gates's income from his share of profits from Microsoft would typically be labelled

'capital income', but most of it consists of above-normal returns (Slemrod and Bakija 2004: 203–4). A textbook income tax includes both normal and above-normal returns into the tax base, a wage tax exempts both, a consumption tax exempts the former but taxes the latter.

- 4 It is part of Kato's (2003: 7, 14, 22–3, 27) argument that tax privileges and exemptions have 'eroded' the income tax base and thus weakened their revenue-raising potential. This ignores the fact that many privileges for capital have made income taxes *more similar* to general consumption taxes and thus probably *increased* their revenue-raising potential.
- 5 This seems consistent with the hypothesis that countries with higher (income) tax burdens tend to rely more heavily on tax expenditures (Ervik, 2000: 40–3, 150–1).
- 6 The default settings of STATA 8.0 are chosen except that no weighting function is used.
- 7 Note that Kato's distinction between the two periods is linked to the argument that after the early 1970s 'a government's attempt to institutionalize a regressive tax system during low growth is thwarted by public suspicion that a new burden would be exhausted to solve deficits without welfare compensation' (Kato, 2003: 3). The theoretical problem with this argument is that, ignoring non-welfare spending, the public *always* gets 'welfare compensation' for tax increases, whether budget deficits are salient or not. For if a government is committed to reducing the budget deficit, the only alternative to tax hikes is spending cuts and hence *lower* 'welfare compensation'.
- 8 Of course, I do not deny that there *are* econometric techniques for better understanding the direction of causality. However, they typically require strong assumptions (Freedman, 2005), and any remotely adequate application of them would require a separate paper. In the remainder of this paper, therefore, I take the more modest approach of systematically linking quantitative and qualitative evidence, while leaving more sophisticated regression analysis for further research.
- 9 The approach taken here is one of 'inference to the best explanation' (Lipton, 2004). In the social science literature, the metaphor often used for this approach is 'detective work' (Freedman, 1991).
- 10 Of course, taxation and spending are highly correlated. The total tax ratio is also fairly highly correlated with 'programmatic' measures of welfare state generosity. For example, its cross-sectional correlation with the Scruggs and Allan's (2006) benefit generosity index (available for 1972–2002 and 18 OECD countries) varies between .76 and .88.
- 11 We can here rely on the OECD rather than Eurostat data because different data sources and estimation strategies are less important for the labour tax rate (Carey and Rabesona, 2002).

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