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Progressive tax reform in OECD countries: Perspectives and obstacles

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Progressive tax reform in OECD countries: perspectives and obstacles

Sarah Godar
Christoph Paetz
Achim Truger

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PROGRESSIVE TAX REFORM IN OECD COUNTRIES: PERSPECTIVES AND OBSTACLES

Sarah Godar
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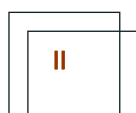
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ABSTRACT

In most OECD countries the redistributive effect of the tax system has been substantially weakened by deliberate tax policies over the last decades. Despite some signs that this trend may have recently come to a halt a comprehensive policy change is not underway. One major argument brought forward against such a change is that of a serious trade-off between equity and efficiency: According to the dominant view higher taxes on top personal incomes, corporate income and wealth are detrimental to growth and employment. This paper argues that even the dominating theoretical framework leaves substantial leeway for redistributive taxation. From a Keynesian macroeconomic perspective redistribution may even be systematically conducive to growth and employment. Therefore, besides attempts at international tax coordination and harmonisation, national tax policies should actively use their room of manoeuvre for progressive taxation to correct the disparities in the income distribution and at the same time to increase the fiscal space.



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1. INTRODUCTION

The substantial increase in the disparities in the distribution of income and wealth over the last decades, in combination with the need for tax increases due to the budgetary stress experienced since the Great Recession, have led to calls for progressive tax reforms in many OECD countries. After decades of declining tax rates for top personal income, corporate income, and wealth as well as increasing privileges for capital income as opposed to wage income it seems plausible to revert the trend and increase the tax share of wealthy households and corporations in order to correct the income distribution and increase fiscal space for governments. However, the dominant economic argument against such a comprehensive policy change is that it would be severely detrimental to growth and employment and/or lead to increased tax avoidance. As a consequence increased redistribution would come at a substantial economic cost or would not be achieved at all, while at the same time the revenue gains may be small.

This paper gives a critical assessment of the standard arguments and complements them with a macroeconomic perspective. As a result, the room for manoeuvre for national governments to increase the progressivity of the tax system and to raise additional revenue may be much larger than often suggested. We start with an overview of the regressive taxation trends since the 1980s in section 2, and show in section 3 that despite some progressive changes in current trends and policy proposals there are no signs of a comprehensive trend reversal, precisely because of the allegedly strong efficiency equity trade-off that supposedly does not allow for such a change. As a next step in section 4 we turn to the scrutiny of the standard wisdom regarding the negative economic effects of progressive tax reform. After having enriched the analysis by a macroeconomic perspective in section 5 we draw some conclusions for future tax policy on the national and international level in section 6.

2. TAXATION TRENDS SINCE THE 1980s: TRADITIONAL STANDARDS OF TAX JUSTICE UNDER PRESSURE¹

Matters of income distribution and redistributive taxation require normative standards of equity or tax justice. Although the traditional distributional goals of taxation were never uncontested, there used to be a widespread consensus as to employing the ‘ability to pay’ principle in the determination of the tax burden. The criterion of horizontal equity implies that tax payers with the same ability to pay should be treated equally by the tax system. The ability to pay can be measured in terms of income, wealth, and expenditure. According to the Haig-Simons definition “income is the money value of the net increase in an individual’s power to consume during a period” (Rosen & Gayer, 2008, p. 382), i.e.

¹ For a more extensive overview see Godar and Truger (2014a).

also savings and capital income are included in the determination of the ability to pay, as they represent an increase in potential consumption. Although difficult to apply in practice in a completely consistent manner (Boadway, 2004, p. 3), this was interpreted to call for the comprehensive income approach to taxation excluding systematic tax privileges for specific sources of income. According to the sacrifice approach used to operationalize the dimension of vertical equity (Prest, 1960, pp. 115) a tax system should impose the same sacrifice on the taxpayers whose individual utility is reduced by the tax. Due to the diversity of possible sacrifice approaches no overall conclusion can be drawn for the desirability of progressivity, so that an additional value judgement is required (Prest, 1960, p. 117). However, in the past it was widely accepted that some – and indeed a high – degree of progressivity was socially desirable in rich industrialised countries.

However, since the 1980s, the distributive goal of fiscal policy was increasingly interpreted as an obstacle to efficient tax design rather than a goal by itself. “Attention appears to be shifting from the traditional concern with relative income positions, with the overall state of equality, and with excessive income at the top scale, to adequacy of income at the lower end. Thus the current discussion emphasizes prevention of poverty, setting what is considered a tolerable cut-off line of floor at the lower end rather than putting a ceiling at the top, as was once a major concern” (Musgrave and Musgrave, 1989, p. 11).

Table 1: Redistribution: general country trend

Inequality before and after taxes and transfers ¹								
Countries with full tax and benefit information for mid-1980s, mid-1990s and mid-2000s ²								
		Market income		Disposable income		Redistribution		
		Gm	<i>Change, % of base period</i>	Gd	Gm-Gd	% of Gm [4] / [1]	<i>Change, % of base-period Gm</i>	<i>[6] / [2]</i>
		[1]	[2]	[3]	[4]	[5]	[6]	[7]
12-country average	<i>mid-1980s</i>	36.2		26.7	9.5	26.4		
	<i>mid-1990s</i>	39.2	8.2	27.4	11.7	29.9	6	73
	<i>mid-2000s</i>	39.8	9.8	28.3	11.4	28.7	5	53
¹ Households headed by a working-age individual (15-64, except in Sweden where 25 was chosen as the age cut-off in order to minimise the impact of a change in the definition of a household that occurred in the mid-1990s). Gini values (G) are shown in percent. All measures are based on equivalised household income using the square-root equivalence scale. Standard LIS practice was followed for top- and bottom-coding (see www.lisproject.org)								
² Australia, Canada, Denmark, Finland, West Germany, Israel, Netherlands, Norway, Sweden, Switzerland, United States								

Source: OECD (2011a)

Indeed, according to the OECD (2011a, pp. 267), since the mid-1980s, market incomes have become more unequal in most OECD countries. Additionally, on average, redistribution by the state has become less effective, especially since the mid-1990s (Table 1). The redistributive impact of the tax and transfer system can be estimated by comparing the development of the Gini value for market incomes (G_m) and the Gini value for disposable incomes (G_d). As can be seen in column 7, “between the mid-1980s and the mid-1990s, redistribution systems compensated nearly three quarters of the increase in market-income inequality” (ibid., p. 268) however, between the mid-1990s and mid-2000s this percentage decreased to 53. Even though the rise in market-income inequality was less pronounced in that period (columns 1 and 2), the redistribution “became less effective at offsetting growing inequalities” (ibid.). “Taxes and transfers now lower inequality by about 29 percent (column 5); more than in the mid-1980s, but less than in the mid-1990s” (ibid., p. 270).

It is impossible to trace exactly to what extent the changes in the tax systems are responsible for the fall in redistribution for all OECD countries in a consistent manner. However, the general taxation trends as reflected in some important indicators can be used to establish a plausible connection. Strongly falling trends in the top marginal income tax rate, in the corporate income tax rate, as well as an increasing trend of *dualisation* of the income tax, i.e. increasing privileges for capital income, demonstrate that the traditional standards of tax justice have come under severe pressure in recent decades.

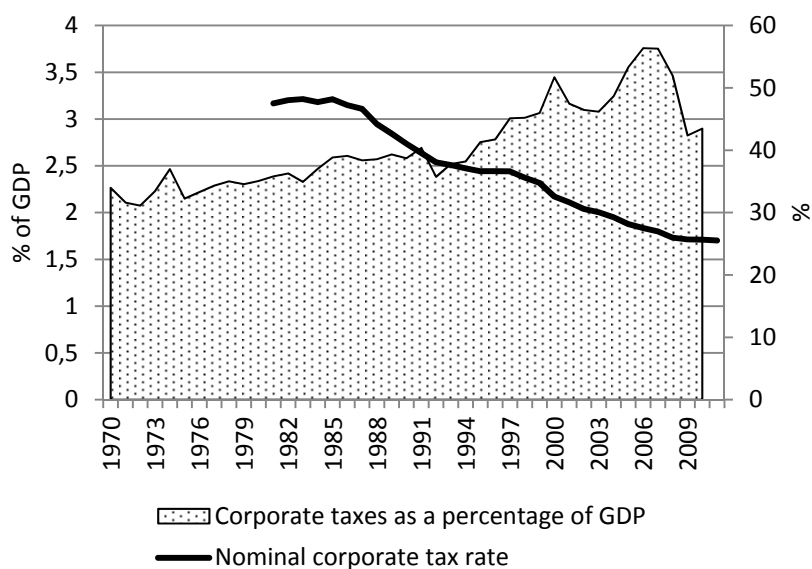
On average, taxes on personal income used to be the most important source of revenues for OECD countries, accounting for about 30 percent of total tax revenues in the 1980s. Since then, their relative importance has declined to about 24 percent while the weight of social security contributions has increased (OECD, 2012a, p. 23). For distributional issues, the personal income tax systems are very important as they are traditionally designed in the most progressive way. In order to evaluate precisely how progressive an income tax system actually is the different tax rates, tax brackets and allowances all have to be considered. Nevertheless, top statutory tax rates can be used to detect broad international trends and as a proxy for the intended redistributive effects of income tax systems. Since the 1970s the top income tax rates declined in nearly all OECD countries. The actual rates are far below those of the 1970s when top marginal personal income tax rates in some countries were higher than 70 percent (Brys et al., 2011, p. 4). In 1981 the top combined statutory personal income tax rate in OECD countries was on average 65.7 percent. Looking only at those countries which were already included in the dataset from 1981 the average rate declined to 50.7 percent in 1990, to 48.9 percent in 2000, and to 45.8 percent in 2010 (OECD, 2012b, p. 33). As in the meantime other countries joined the OECD the average rate including all OECD countries in 2010 was 41.7 percent.

Recently, many European countries purposely broke with the comprehensive income approach by making capital income of individuals subject to a separate tax schedule with one single tax rate while labour income continues to be taxed

progressively. In many OECD countries, certain types of capital income of individuals (such as interests, dividends and capital gains) are excluded from progressive income taxation (e.g. Sweden, Finland, Austria, Germany, Italy, Spain, Ireland, Japan; OECD, 2013a; Deloitte 2013). As Schratzenstaller (2004, p. 23) points out, since the early 1980s many West European countries have reformed their taxation of capital income moving away from the comprehensive income approach and towards *dualisation* of the income tax. Capital gains are most frequently taxed at a rate lower than the individual marginal tax rate. Additionally manifold tax reliefs apply for different types of capital gains (Deloitte, 2013). Turning to the taxation of dividends on an individual level (combined effect of corporate income tax and personal income tax), since 1981 the maximum overall tax burden on dividends has declined significantly, a fact that can probably be explained by declining corporate income tax rates, and declining top personal income tax rates in combination with increasing efforts to prevent double taxation (OECD, 2013a).

The taxation of corporate income has witnessed nearly three decades of international race to the bottom in terms of nominal corporate tax rates. Looking at the countries for which OECD data is available since 1981 the unweighted average combined corporate income tax rates declined by 20 percentage points from 47.5 in 1981 to only 27.2 in 2012. The average reflects the individual trends quite well as virtually all countries in the sample adopted considerable cuts in the corporate tax rate. Unfortunately nominal tax rates are hardly comparable in between countries as the rules for the tax base calculation differ internationally. However, other more sophisticated measures for effective tax rates as the Effective Marginal Tax Rates (EMTR) and Effective Average Tax Rates (EATR) on new investment based on microeconomic models of investment (Spengel et al., 2012) as well as the aggregate implicit tax rates calculated by Eurostat (EC, 2012, p. 257) broadly show a similar picture.

Figure 1: Corporate Taxes as a Percentage of GDP and Nominal Corporate Tax Rates (OECD Averages 1970-2010)



Source: OECD (2013a).

However, it is remarkable that the falling nominal and effective tax rates are at first sight not reflected in the revenue numbers: Until 2007, corporate taxes as a percentage of GDP increased significantly in most OECD countries as compared to the levels of 1970 and 1980 (Figure 1). Despite declining considerably between 2008/9, the average level in 2010 was still higher than during the 1970s and 80s. The pattern in the development of corporate taxes as a percentage of total taxation is similar. Part of the explanation of this tax puzzle may be that declining nominal rates were to some extent accompanied by measures to broaden the tax base. Another explanation may be that “stimulated by the steep fall in corporate tax rates, which in some countries are now well below the top PIT² rate, growing *incorporation* has been boosting CIT³ revenues at the expense of the personal income tax” (EC, 2010, p. 23). However, the most likely dominating cause of the strong development of corporate tax revenues is the rising share of corporate profits in GDP (Devereux et al., 2004, p. 26). In general, during the last decades, the profit share in GDP has increased in many OECD countries, which partly explains increasing or stable revenues from corporate taxes as a percentage of GDP.

On average, the revenues from property taxes as a percentage of GDP have remained fairly stable in OECD countries as compared to 1970. The weight of property taxes in total taxation has slightly decreased on average, by

² Personal income tax.

³ Corporate income tax.

approximately 1.8 percentage points since 1970, although it broadly remained stable since the beginning of the 1980s. However, this points to a considerable fall in the effective taxation of private wealth, as shown by Piketty and Zucman (2013), since 1970 the ratio of private wealth to national income has risen considerably in many rich countries. Hence, the development of property taxation has negatively affected tax justice and income distribution as well.

3. CURRENT TRENDS AND PROPOSALS: NO SIGNS OF COMPREHENSIVE POLICY CHANGE

In the face of rising inequality and strong budgetary pressures, in many OECD countries since the Great Recession there have been some signs that the downward trend in redistributive taxation may have come to a halt recently.⁴ At the same time, a number of international institutions have commented in a roughly progressive way on how to respond to the need for fiscal consolidation in terms of socially acceptable tax reforms.

With respect to the top statutory income tax rate, it seems that the downward trend has come to an end in recent years as the OECD average stopped decreasing since 2008 and has even increased slightly. This is because in the majority of OECD countries statutory top income tax rates were increased after the recent financial crisis (IMF, 2013, 26). Especially in Greece, Spain, and the UK the top income tax rates increased significantly: from 40 to 49 percent in Greece, from 43 to 52 percent in Spain, and from 40 to 50 percent in the UK. Since the financial crisis a number of countries have also increased their maximum tax rates on capital income of individuals. Especially those European countries facing extreme pressures on their public budgets have adopted (at least temporary) reforms: Ireland increased its maximum tax rate on capital gains from 25 to 30 percent (EC, 2012, p. 106), Italy from 12.5 to 20 percent. Spain has increased its two progressive rates for capital gains from 19 and 21 percent to 21 and 27 percent for the years 2012 and 2013 instead of the former flat tax of 19 percent (Deloitte, 2012). Portugal has increased the maximum tax rate on capital gains from 20 to 25 percent, and its maximum tax on interests from 21.5 to 25 percent. The United States increased its maximum tax rate on capital gains from 15 to 20 percent in 2013 (Deloitte, 2013). Since 2013 France taxes capital gains from movable assets such as securities and bonds at progressive rates that apply also for ordinary income (Deloitte, 2013). Remarkably, since the economic crisis the average level of corporate tax rates seems to stabilise (OECD, 2013a). Since 2010 France, Greece, Iceland, Korea, Portugal and the Slovak Republic even increased the rates, although there were nine countries with further decreases (IMF, 2013, p. 26). Austria, Belgium, the Czech Republic Denmark and Spain saw a broadening of the corporate income tax base. With respect to the taxation of immovable property Belgium, Greece, Ireland, Portugal, Spain and the U.K. increased their

⁴ For a more extensive overview see Godar and Truger (2014a).

taxes on immovable property as a response to increased budgetary pressures (EC, 2012, pp. 29; IMF, 2013, p. 26).

Whereas the aforementioned recent developments are steps in the direction of increased tax justice, some steps in the other direction must be noticed: Since 2009 many and in particular European governments have raised their value added tax rates in order to generate additional revenues (EC, 2013a, p. 31; IMF, 2013, p. 26). In addition there were numerous increases in excise taxes. As pointed out by the European Commission (EC, 2013a, p. 30) the revenue increasing measures since 2009 have heavily focused on consumption taxes. As consumption taxes are regressive in nature (Jourmard et al., 2012, pp. 56) this recent trend constitutes a clear move away from tax justice and redistribution. The same applies to a lesser degree for the increases in social security contributions that occurred in nine countries since 2010 (IMF, 2013, 26).

Within the last few years many important international institutions have presented proposals on how to respond to the need for fiscal consolidation in terms of socially acceptable tax reforms (ETUC, 2010; EC, 2012, 2013c; European ATTAC Network, 2013; European Council, 2012; G20, 2013; ILO, 2011; IMF, 2013; ITUC, 2010, 2012c, 2012d, 2013b; Tax Justice Network, 2013; UNCTAD, 2012). While it seems to be a widely-held view that combating tax evasion, limiting tax avoidance and the introduction of a financial transaction tax are of high priority, opinions differ much more when it comes to the need for truly progressive tax reforms. Whereas the trade unions, ILO, UNCTAD and some NGOs more or less call for such reforms, including a more ambitious approach to tax avoidance and evasion, stronger taxation of the financial sector and wealth as well as generally higher tax rates for capital income and rich households; the dominant mainstream institutions European Commission, IMF, and OECD are very reluctant if not openly opposed to such reforms.⁵

Based on de Mooij and Keen (2013) and IMF (2010a, 2010b), the IMF (2013, p. 25) states its understanding of the conventional wisdom as to revenue side consolidation by broadening the tax base of the value added tax as well as the personal and corporate income tax, increasing recurrent taxes on residential property as well as increasing environmental taxation. Obviously, the focus lies primarily on raising additional revenues without affecting low-income households too much, a view exactly shared by the OECD (2012c). The increase of regressive taxes such as consumption taxes and to some extent residential property taxes is proposed, suggesting additional transfers in order to mitigate their regressive impact. In order to promote growth and reduce inequality one of the most repeated OECD proposals is the closure of tax loopholes and the reduction of “tax expenditures which mostly benefit the well-off” (OECD, 2012c, p. 3). According to the OECD, the least distortive taxes such as taxes on immovable property and consumption taxes should raise living standards while at the same time raising inequality. “Targeted transfers, however, can reduce the severity of

⁵ For a more extensive overview see Godar and Truger (2014b).

this trade-off.” (OECD, 2012c, p. 3). In its Council Recommendations 2012, the European Council “invites Member States, where appropriate, to review their tax systems with the aim of making them more effective and efficient, removing unjustified exemptions, broadening the tax base, shifting taxes away from labour, improving the efficiency of tax collection and tackling tax evasion” (European Council, 2012, p. 3).

Although some of the proposed measures may be able to reduce the disparity in the income distribution or at least show a concern for negative distributional side effects; it is striking that more fundamental reforms, i.e. a direct reversal of the downward trend in tax rates is not called for: Increasing the tax rates of personal and corporate taxation as well higher general taxation of wealth are not on the agenda, although the former is discussed extensively and not ruled out *per se* by the IMF (2013, pp. 33). The major reason for not proposing such a more fundamental change consists in the perceived trade-off between equity and efficiency: As the OECD (2012d, p. 39) puts it: “Simply raising marginal personal income tax rates on high earners will not necessarily bring in much additional revenue, because of effects on work intensity, career decisions, tax avoidance and other behavioural responses.”

4. STANDARD ARGUMENTS AGAINST PROGRESSIVE TAXATION UNDER SCRUTINY⁶

The OECD’s statement quoted above suggests the standard arguments against progressive taxation relies on negative incentive effects on private households’ and firms’ decisions and on an increase in tax avoidance behaviour. There can be no denying that those effects may exist and potentially pose a serious threat to a comprehensive move towards more progressive taxation. However, on the basis of standard mainstream textbook knowledge (e.g. Rosen and Gayer, 2008; Salanié, 2011) and literature, it can be argued that these effects need not necessarily be large so that the equity efficiency trade-off alluded to may actually be rather small. In addition, government spending financed with the additional revenue may offset or even overcompensate for the negative effects of taxation on output and employment.

Analysing first the private household sector, the most important negative incentive effects discussed refer to labour supply, savings and – more recently – tax avoidance. The typical argument raised against progressive income taxation is that taxes reduce the hourly compensation for work and thus lower the opportunity cost of leisure. Theoretically however, the overall effect on labour supply is indeterminate: It can decrease because leisure time becomes relatively more attractive (substitution effect) or it can increase because for the same amount of hours worked the overall income will be lower and the economic agent may want to compensate for this loss (income effect) (Salanié, 2011, pp.

⁶ For a more extensive overview and discussion see Godar and Truger (2014c).

18). Since high-income earners are often assumed to be high-productivity workers, Salanié argues that discouraging their labour supply may cause a greater welfare loss than discouraging the labour supply by the low-productivity worker (ibid., pp. 88). However, the idea that top executives really face the type of decision may be unrealistic. As Corneo (2005, p. 17) puts it: The substitution effect is only relevant as long as a person's working potential is not exhausted. In general the preoccupation with labour supply seems exaggerated. Considering the need to earn a living in combination with social norms the notion that individuals decide about their labour market participation with respect to the income tax rate is not very compelling.

Therefore, it hardly comes as a surprise that empirically, the labour supply seems to be rather inelastic with respect to wages. In a meta-study Evers et al. (2008) review empirical estimates of the uncompensated wage elasticity of labour supply. The mean of the empirical distribution of estimated elasticities for the labour supply of men is 0.07 and the median is 0.08. The respective values for women are 0.43 and 0.27 or 0.34 and 0.26 excluding outliers (pp. 32). This would imply that on average, a percentage change in the net hourly wage rate, *ceteris paribus*, leads to a 0.07 percentage change in hours worked by men and 0.43 (0.34) by women. The evidence that female labour supply is more sensitive to the wage can partially be explained by the fact that on average women still "undertake a much higher load of unpaid work than men" (OECD, 2012e, p. 73). According to the OECD, in countries with high child-care cost women are much more likely to work part-time (ibid., p. 84).

In addition, Alvaredo et al. (2013, p. 9) suggest that the model of pay determination used in much of the optimal tax literature may be oversimplified. They consider the possibility that top income earners' growing bargaining power may help them to increase their compensation at the expense of other income groups. From this perspective lower top marginal tax rates provide an incentive to increase bargaining efforts which have nothing to do with productivity enhancing work efforts. Higher top incomes may thus be the result of redistribution in between income groups rather than of additional economic activity. Including the effect of top marginal tax rates on bargaining efforts may allow for a higher marginal tax rate as discouraging bargaining efforts can have positive effects on economic efficiency. This is the case if due to their bargaining power, top income earners manage to raise their remuneration above marginal productivity and at the expense of the remaining incomes. As Kleven et al. (2010), and Young and Varner (2011), point out, despite individual examples of migrating millionaires, it is also improbable that rich households will try to avoid taxation by changing their country of residence.

Although it is often argued that taxes on capital income discourage savings and therefore investment and growth, economic theory does not provide clear results supporting this view. This is not astonishing since even in a simple life-cycle model of consumption the income effect can outweigh the negative substitution effect of taxation on saving (Salanié, 2011, p. 289). Banks and Diamond (2010)

review different versions of models, commonly applied in optimal tax theory, which predict that the optimal tax rate on capital income is zero. They criticise that the standard results rely on too restrictive assumptions and are thus “not robust enough for policy analysis” (p. 5). They find that “at present, the literature has only little to say about how to combine the two sources of income to determine taxes” (ibid, p. 6). Also, Attanasio and Wakefield (2010), discuss the effects of taxation on saving and conclude that “quantifying the effects that changes to the interest rate might have on the level and pattern of saving is not completely obvious” (p. 726).

Instead of actually changing behaviour in real terms, another way of responding to high taxes, especially for wealthy households, is simply to avoid the tax for example by formally becoming a resident of a tax haven or by opening a bank account in a tax haven sheltered by intricate legal structures to conceal its true ownership. Henry (2012, p. 36), estimates that the value of offshore financial assets today ranges between \$21 trillion and \$32 trillion. Hollingshead (2010), suggests that “current total deposits by non-residents in offshore and secrecy jurisdictions are just under US\$10 trillion” (p. 3). Even if the lower number were the correct one the size and relevance of the problem would still be obvious. Apparently, tax planning and tax evasion might represent a certain threat to the governments’ ability to effectively redistribute income and wealth. However, Piketty et al. (2011) estimate an average long-run elasticity of top incomes with respect to the net-of-tax rate of about 0.3-0.4. In order to compute the optimal top marginal tax rate they develop a model integrating three different components of this overall elasticity: a supply side effect (real behavioural adjustments), a tax avoidance effect, and a compensation bargaining effect. For the U.S. Piketty et al. (2011) estimate that the top marginal tax rate is well below its revenue maximizing point suggesting much higher tax rates. Also Diamond and Saez (2011) suggest that the U.S. top tax rate of 42.5 would only be optimal if the elasticity of the tax base were 0.9 which is much higher than the “mid-range estimate” of 0.25 from the empirical literature they have considered (pp. 171). In a paper on the optimal top personal income tax rate for Germany Bach (2013) computes optimal tax rates for Germany. On the basis elasticities of income with respect to the top tax rate ranging between 0.3 and 0.4 increasing the German top tax rate would clearly yield additional revenue (p. 86), with the critical threshold for revenue losses being and elasticity as large as 0.8. With a similar approach, the IMF (2013, pp. 34-37) calculates a range of revenue-maximising top personal income tax rates for 16 OECD countries. In 12 countries the actual top rate is below or in the lower half of that range indicating substantial leeway for increased tax rates.

The tax that according to standard mainstream reasoning is seen as the most detrimental to economic growth is the Corporate Income Tax (CIT). “Corporate income taxes are the most harmful for growth as they discourage the activities of firms that are most important for growth: investment in capital and productivity improvements” (OECD, 2010, p. 20). Furthermore high corporate tax rates are supposed to induce firms to move their production abroad and thus decrease

domestic employment. The theoretical mechanism behind these effects runs through the effect of the CIT on the cost of capital: “As a broad rule of thumb, a lower cost of capital encourages investment, while a high cost of capital discourages it” (Vermeend et al., 2008, p. 150). The basic neo-classical argument is that “firms accumulate capital as long as the return to investment exceeds the cost of finance and depreciation. Due to decreasing returns to scale, there is a marginal project that just breaks even, i.e. which earns a return that precisely matches the costs (pre-tax rate of return on the marginal investment project is defined as the cost of capital)” (de Mooij & Ederveen, 2008, p. 684). As it turns out, however, this standard approach relies on some very narrow theoretical assumptions. The fact that firms invest as long as the return to investment is *higher* than the cost of capital does not offer any answer to the question of *how much* higher the return on investment must be. The neoclassical break-even point is only reached under perfect competition and it implies that firms do not realise profits on their marginal investment project. However, with imperfectly competitive markets firms realise more than zero profit on the marginal investment project so that, as long as the corporate tax does not completely deplete this economic profit there will still be an incentive to invest. Furthermore, as Musgrave and Musgrave (1989, p. 306) point out; the effects of corporate taxes on investment depend on the specification of the investment function, i.e. on the underlying theory of investment.

Although investment may, *ceteris paribus*, depend inversely on the interest rate and therefore on taxation through its effect on the cost of capital, relaxing the *ceteris paribus* assumption a multitude of other variables, including past sales, the business climate or unit labour cost, also play a role and on their part may positively be affected by sound public finances. Therefore, for example the potentially positive long-run effects of public funding of R&D expenditures and human capital accumulation should be considered; as well as potential positive agglomeration effects that may compensate for the negative effects of taxation (Brühlhart et al., 2012).

Analysing the empirical evidence, while it suggests that investment behaviour is affected by corporate taxation it is hard to get reliable estimates of the magnitude and thus the relevance of this effect. There is not much empirical evidence of tax effects on aggregate real investment. Evidence from micro-level studies hints at negative effects of taxes on investment ranging from rather inelastic (-0.25) to more elastic (-1) responses of investment but it is difficult to transfer these results to aggregate investment on the macroeconomic level (Hanlon and Heitzman, 2010, p. 148). A meta-study, by de Mooij and Ederveen (2009), on the impact of taxation on foreign direct investment shows varying effects: On average “a 1-percentage point increase in a tax measure in a certain location reduces foreign capital by 3.3 per cent” (p. 689). However, the standard deviation of 4.4 is high and foreign direct investment cannot be used as a proxy for aggregate real investment as it also includes portfolio investment. Two recent studies trying to assess investment effects of corporate tax cuts in Germany (Reinhard and Li, 2011), and the UK (Maffini, 2013), come to the sobering result

that there is no convincing evidence that the goal of encouraging investment was reached. Reinhard and Li (2011, p. 735) even conclude that “market opportunities and competitive pressures appear to be more important for investment decisions than domestic tax changes”. In a different strand of the literature on the effects of the tax mix on long term growth the CIT is usually estimated to have the most negative effect (IMF, 2013, p. 30). However, the IMF (2013, p. 30) stresses citing Xing (2012) that these results are not robust and that Acosta-Ormaechea and Yoo (2012) find almost no negative effect of a tax mix relying more on the CIT.

It is sometimes suggested that tax cuts pay for themselves because the lower tax rates will substantially increase investment and corporate income. This would imply that the economy was situated on the downward sloping part of the Laffer curve where tax hikes trigger such a strong decrease in the tax base as to outweigh the positive effect of the tax rate increase on revenues. Recent empirical estimates however, show that this is rather improbable. Riedl and Rocha-Akis (2012, p. 65), after reviewing the literature and estimating the effects of corporate income tax rate reductions for 17 OECD countries from 1982 to 2005, conclude that “on average, the tax base is inelastic with respect to the domestic statutory rate. In other words, on average, the statutory CIT rates are in the upward sloping region of the Laffer curve, indicating that a unilateral rise in the statutory CIT rate would result in a less-than-proportional decrease in that country’s CIT base and, therefore, a higher level of CIT revenues.” It is remarkable that although they find substantial effects of the CIT rate on the country’s aggregate CIT base, income per capita and real unit labour costs are found to be more important determinants of the CIT base (ibid., p. 656).

Besides the real behavioural reactions to taxation discussed in the literature, a much debated issue today are firms’ avoidance strategies which aim at manipulating the tax base without actually changing the level of economic activity in a country. According to the OECD’s (2013b) comprehensive report on base erosion and profit shifting, multiple opportunities exist for corporations to shift income among entities and thereby to countries where lower tax rates or special exemptions are applied. Examples for such opportunities are using licences for brands, patents, or other financial services provided by a foreign subsidiary in a low tax jurisdiction as well as the manipulation of transfer pricing. Obviously, firms are using these opportunities: The OECD (2013b, p. 17) observes that in 2010 Barbados, Bermuda, and the British Virgin Islands received, as a group, 5.11% of global FDIs, which is more than Germany received (4.77%). Conversely, they also made more investments into the world (4.54%) than Germany (4.28%). Although there are no reliable numbers about how much profit shifting actually occurs (Ibid., p. 15), the existence of profit-shifting activities is “largely unquestioned” (Heckemeyer and Overesch, 2013, p. 1). Heckemeyer and Overesch (2013), review the empirical literature on profit-shifting behaviour of multinational firms. On average, the 25 studies estimate a semi-elasticity of reported profit or earnings before interest and taxes with respect to the international tax differential between a country and other subsidiary locations of 1.55 with a relatively high standard deviation of 2.23. (ibid. p. 8). Although at first

sight the number seems substantial, it implies that on average a country with an overall tax rate on corporate profits of 20 % may increase its rate by 5 percentage points or one quarter at a cost of losing only 7.75 % of its tax base. Hence it would not receive the full revenue benefits of the tax increase in the absence of tax avoidance, but after all, more than two thirds of it.

All in all, therefore, the case against progressive taxation turns out to be substantially weaker than claimed by standard mainstream approaches. Both from a theoretical and an empirical point of view, the negative effects on growth and employment and the erosion of the tax base may not be large. Furthermore, factors other than taxation (cyclical condition of the economy, infrastructure investment, research and development expenditures, the educational system as a provider of a qualified workforce) may be much more important for the overall economic effect of taxation. If those factors can be enhanced by government expenditures financed through progressive taxation then the overall economic effect of the latter may well be positive.

5. MACROECONOMIC ARGUMENTS IN FAVOUR OF PROGRESSIVE TAXATION⁷

Taking a look at taxation from a macroeconomic perspective may further strengthen the case for redistributive taxation. As seen before, the standard approaches assume a more or less strong trade-off between (re-)distribution and efficiency. However, depending on the theoretical approach chosen, redistribution may be conducive to output and employment both in the short and in the long run. If the economy is constrained by insufficient demand and if inequality is detrimental to private consumption, redistributive taxation may strengthen growth and employment via the resulting increase in private consumption. At the same time a change towards a policy of redistribution may well be the prerequisite for avoiding the international macroeconomic imbalances that have come to be seen as a root cause of the global financial and economic crisis 2008/2009 by many observers (see Hein and Truger 2011).

It has long been recognised that the neoclassical approach strictly speaking only applies to a situation of full employment in the absence of involuntary unemployment. In the case of involuntary unemployment, however, optimising tax policy according to supply side goals may actually increase unemployment in the short run instead of reducing it (Atkinson, 1993, pp. 15). Furthermore, following Musgrave and Musgrave (1989, p. 306) one important constraint to investment may be a lack of effective demand rather than the relative scarcity of capital. Therefore capacity utilisation may be a more important determinant of investment than tax rates. Recent multiplier estimates tend to strengthen the traditional Keynesian proposition that fiscal policy is effective, especially under the current conditions in the Euro area with monetary policy at the lower bound

⁷ For a more extensive overview and discussion see Paetz and Truger (2014).

and fixed exchange rates within the currency union (Auerbach and Gorodnichenko, 2012; Batini et al., 2012). As suggested by the standard Keynesian textbook models and the Haavelmo theorem, the expenditure multiplier tends to be larger than the revenue side multiplier (Auerbach and Gorodnichenko, 2012; Batini et al., 2012; Gechert and Will, 2012), hinting at the possibility that increasing (progressive) taxation in order to finance government spending may actually be conducive to growth and employment.

In addition, there is also a macroeconomic rationale for revenue-neutral redistributive tax reform. According to Keynes (1936, chapter 2, 1937, pp. 219; Davidson, 2011), effective demand consists of private consumption and investment demand. Keynes put particular emphasis on the importance of investment demand, as he was convinced that its high volatility in combination with the multiplier process was the most important cause for fluctuations of overall economic activity (Keynes, 1937, p. 221). Investment demand depends on the fluctuating subjective expectations of firms with regard to profitability of real investment and the monetary interest rate, which in turn is influenced by the fluctuating liquidity preference of economic agents. However, private consumption also plays a central role, particularly the fact that it is assumed to be dependent on current disposable income. Keynes assumed that private consumption is positively related to overall disposable income in the economy, with the marginal propensity to consume indicating how large is the part of income which flows into additional consumption and thus automatically how large is the residual which flows into savings. If overall income rises because of an increase in investment activity, it will lead to an additional increase in private consumption according to the marginal propensity to consume, which in turn will lead to an additional increase in income, etc. The induced multiplier process will be the stronger the higher the marginal propensity to consume and hence, the lower the marginal propensity to save.

Based on these theoretical assumptions, one can derive a negative correlation between the disparity in the income distribution and private consumption. If lower income households have a higher propensity to consume than higher income ones, redistribution in favour of low income households will increase the overall propensity to consume and therefore private consumption.

In this case, a tax correction of the disparity would lead to a strengthening of private consumption demand and hence, *ceteris paribus*, to an increase of growth and employment.⁸ Therefore, one could expect an increase in consumer

⁸ However, the underlying hypotheses regarding private consumption behaviour is certainly not uncontroversial (see van Treeck and Storn, 2012, pp. 13). The validity of the Keynesian consumption function is assumed, which states that private consumption depends on current real disposable income. In addition, it is assumed that the marginal propensity to consume or to save in different income classes remains unchanged with a change in income distribution. However, other theories of consumption could lead to different results. If one follows Friedman's (1957) permanent income hypothesis, it would depend on whether the increase in inequality is permanent or temporary. Only in the latter case, private households would under risk aversion reduce their marginal propensity to consume. In the former case, however, households would not change their consumption

spending via a fiscally induced reduction in income inequality. This raises the question under which conditions such an increase in demand will actually be transformed into higher overall economic activity.

Obviously the answer depends very much on the underlying macroeconomic paradigm. Within the currently dominant New Consensus Macroeconomics (NCM) (Clarida et al., 1999; Woodford, 2003; Carlin and Soskice, 2006; critically Arestis, 2011) this will tend to be only a short run result as in the long run the so-called NAIRU (non-accelerating inflation rate of unemployment) and the associated output and employment equilibrium will prevail. However, as shown by Hein (2002), and Lavoie (2009), with some stepwise modifications the NCM model can easily be transformed into post-Keynesian macroeconomic approaches, which are closer to the traditional Keynesian analysis, by assigning an important role of aggregate demand, both in the short and the long term (Hein, 2008, Chapter 6; Lavoie, 2009; Fontana and Setterfield, 2009; Hein and Stockhammer, 2011). In these approaches, which have certainly gained plausibility relative to the NCM models with their restrictive assumptions because of the considerable shock of the Great Recession, redistribution through the tax system can systematically lead to higher growth and employment. Thus, from a macroeconomic point of view the trade-off between equity and efficiency might well disappear even in the long run.

6. CONCLUSIONS FOR TAX POLICY⁹

The perspectives for a truly progressive reform of the tax system, i.e. reversing the long run international trend of decreasing tax justice and increasing disparities in the distribution of income and wealth, while at the same time raising urgently needed revenues for government budgets, have developed in a rather favourable way over the last few years. There are some signs that the downward trend in redistributive taxation may have come to a halt recently. At the same time a number of international institutions have commented in a more or less

behaviour. If the validity of Duesenberry's (1949) relative income hypothesis is assumed, private households which are affected by a relative reduction of their income would increase their marginal propensity to consume, in order not to fall behind the consumption of higher income classes. The expected result of the Keynesian consumption hypothesis, a weakening in consumer demand, might therefore at least be mitigated or in the extreme even overcompensated. Indeed, there is some evidence for the validity of the relative income hypothesis, especially for the United States (Frank, 2005; Frank et al., 2010.). Overall, the response of private consumption to increasing income inequality seems to depend on country-specific factors, mainly the access of lower and middle income groups to credit (van Treeck and Sturn, 2012). The extreme increase in inequality in the U.S. thus went hand in hand with a strong long term debt-financed development of private consumption and a significant increase in household debt which triggered the financial market bubble, until it burst. However, in countries with less accessible credit markets, in which households were unable to get credit due to credit rationing by banks, the Keynesian consumption theory seems to hold.

⁹ For a more extensive discussion of reform proposals and alternatives see Godar and Truger (2014b) in general and for the case of Germany in particular Eicker-Wolf and Truger (2014).

progressive way on how to respond to the need for fiscal consolidation in terms of socially acceptable tax reforms. Against this background the conclusions to be drawn from this paper for tax policy are at least twofold.

Firstly, on the international level the widespread consensus as to the need for combating tax evasion and limiting tax avoidance as well as the introduction of a Financial Transaction Tax should be used to implement reforms in the most ambitious way possible. The EU commission's plans to revise the Savings Directive in order to make it applicable to dividends, capital gains, and all other forms of financial income (EC, 2013b), making them subject to an automatic exchange of information among member states would be an important step against tax evasion by individuals.

In the area of corporate taxation, the same applies for the OECD Action Plan in Base Erosion and Profit Shifting (OECD, 2013c), or potentially even more comprehensively the approach of Unitary Taxation which would make multinational companies submit their worldwide consolidated accounts (covering all parts of the company engaged in a unitary business) to local tax authorities so that their internal transfers would no longer be of interest (Picciotto, 2012). This should be complemented with some minimum tax rates to prevent harmful tax competition. A Financial Transaction Tax covering both spot and derivative assets could help reduce size and volatility of financial markets while at the same time generating substantial revenue (Schulmeister et al., 2008). However, for all of these proposals there is the serious danger that they will be delayed, watered down or not be implemented at all due to political pressure by some individual states.¹⁰

Secondly, quite independently of the success of the measures on the international level, national tax policies should seek to achieve a substantially higher level of redistributive taxation even without international coordination. The scope for redistributive tax policies on the national level has been shown to be considerably larger than claimed by the dominant mainstream view and institutions. Therefore, there is no need for national tax policies to restrict their efforts to the rather faint-hearted measures proposed by many influential international institutions like broadening the tax base and increasing taxation of residential property while at the same time avoiding excessively negative distributional consequences of increasing consumption taxes. Instead, for many national governments, there seems to be substantial leeway to increase top personal income tax rates, the corporate income tax and the taxation of capital in general. National governments should use this leeway, as it would increase revenues for essential public uses, decrease inequality while at the same time encouraging progressive reforms on the international level.

¹⁰ For example the EC (2011) proposal for unitary taxation instead of making it compulsory introduces it as an option that firms may voluntarily choose. That way it simply adds one more option for firms to avoid taxation.

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