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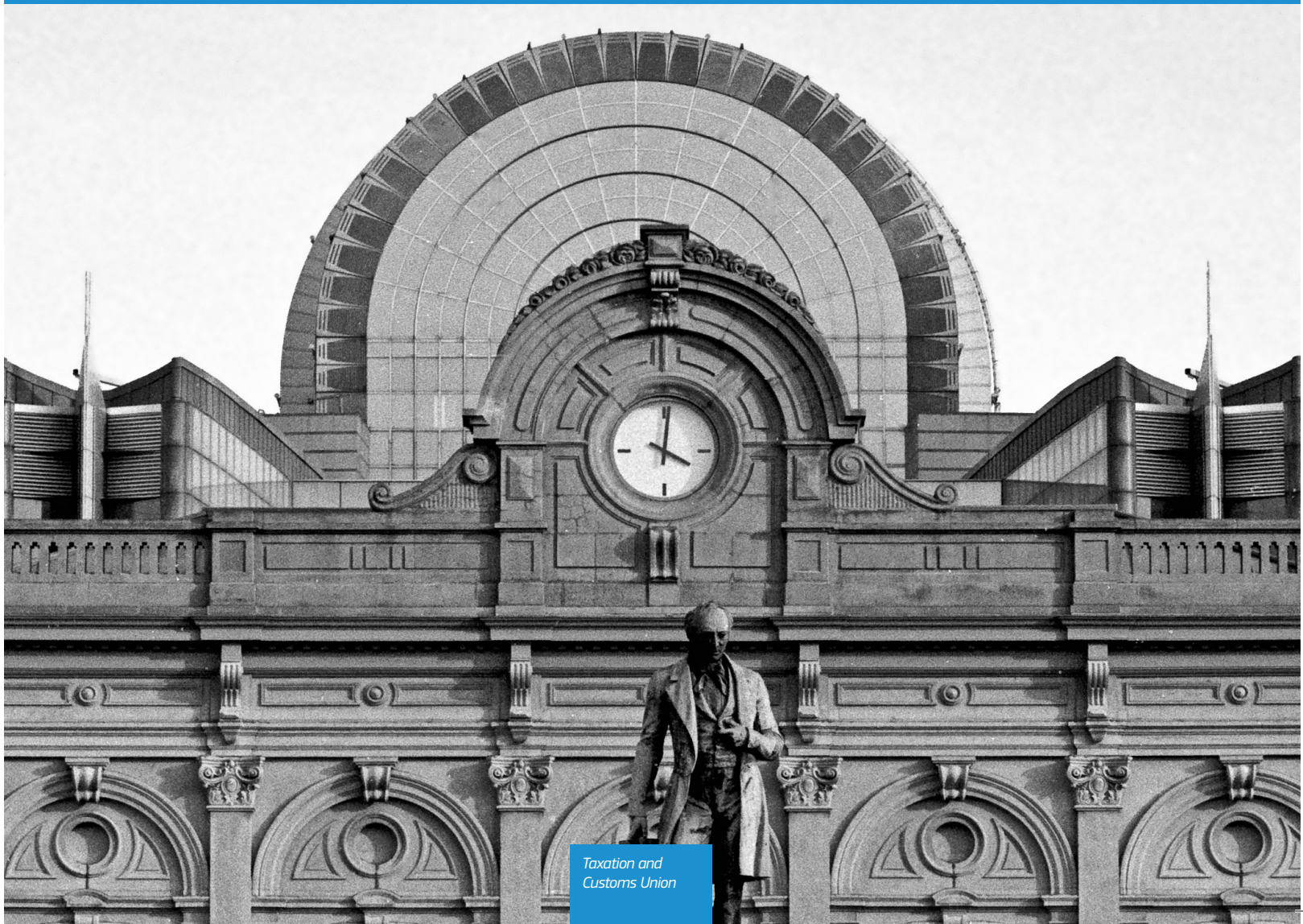
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Tax Shifts

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Tax Shifts

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Abstract: Shifting taxes away from labour to tax bases which are considered least detrimental to growth remains a common policy recommendation from the European Commission and other international institutions. This paper reviews the theoretical and empirical literature on the growth effects of tax shifts. It then takes stock of tax shifts in the EU Member States over the last years, giving a few examples of their implementation and of the hurdles Member States have faced. Finally, it concludes on recent developments that may impact on the nature of future tax shifts.

Keywords: Taxation, Growth, Tax shift, labour taxation, VAT, redistribution

JEL Classification: H20, H30, N14, P35

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INTRODUCTION

The quest for economic growth is at the heart of most economic policies. Growth is usually associated with higher employment and standards of living. In the European Union, the Juncker Commission has set as top priority to get Europe grow again and to promote jobs. As part of this policy, the Europe 2020 agenda and the European Semester are precisely about delivering growth through an integrated approach in the areas of employment, innovation, education, poverty reduction, climate and energy. Alongside this process, the Investment Plan – that foresees to mobilise over EUR 315 billions between 2015 and 2017 – shares the same goals.

If Public Finance theory rarely explicitly lists growth *per se* as a government objective, it is obvious that its promotion is implicitly there. It is for example most explicit in the stabilisation function proposed by Musgrave (1959) that foresees that governments manage expenditures, revenues and debt to adjust aggregate demand to promote employment and prevent inflation. The Musgravian allocation function, calling for governments to act on market failures and to promote merit goods, addresses efficiency aspects of the economy, which have GDP effects. Finally, the redistribution function for correcting inequalities and aiming at social justice participates to the conditions for inclusive growth. Even the roles for the State proposed by the *Laissez-Faire* John Stuart Mill (1848) – the protection of citizens, the ownership of vital resources and the provision of common goods – appear as influencing the conditions for growth.

The role for tax policy in promoting growth has been relatively understudied. It is noticeable that landmark publications such as the 1978 Meade Report or the 2011 Mirrlees Review discuss the design of taxes but not their potential impact on growth. This distinction between an approach based on static efficiency and one based on dynamic efficiency mirrors an important line of divide in this branch of economic research between the impact on GDP levels and GDP growth.

The role of tax policy in fostering growth has regained attention with OECD works (Arnold, 2008; Johansson et al., 2008) suggesting a ranking of taxes with respect to their relationship to economic growth. This ranking has been influential for policy recommendations from international organisations, including the OECD, the IMF and the European Commission. One common policy recommendation for EU Member States is to shift taxes away from labour to other tax bases that are less detrimental to growth.

This paper revisits the rationales behind this recommendation and recent tax policies in the European Union in the framework of the European Semester. The remainder of the paper is organised as follows. Section 1 reviews the theoretical and empirical literature on taxation and growth. Section 2 takes stock of recent policy experiences in EU Member States to shift taxes away from labour to other

tax bases and the potential hurdles to their implementation. Next, section 3 discusses recent policy and technical developments that could possibly alter the implementation of tax shifts. Section 4 concludes.

LITERATURE REVIEW

The literature on the links between taxation and growth has been superbly reviewed by Myles (2009a, 2009b, 2009c) in his trilogy of papers on the topic. We will draw on his work and complement it with recent research.

THEORETICAL PREDICTIONS

A good starting point is to look at growth models and see what role taxation could play in influencing the drivers of growth. In exogenous growth models such as Solow (1956), the steady state is reached when the capital-labour ratio is constant, which in turns means that the output per capital and consumption per capita are constants. The equilibrium level of output per capita depends on the saving rate, the rate of growth of the population, the economic depreciation rate of capital and an exogenous technical progress that captures the increase in productivity over time. As stressed by Myles (2009a), out of these variables, only the saving rate is actionable by policies. The additional bad news is that the saving rate has an upper limit (i.e. 100%) and that such policy will only create a one-off change in GDP before the economy reaches a new steady state and the rate of growth per capita returns to zero. Even if (tax) policies may affect the saving rate, the exogenous growth model implies that there is an optimal saving rate that maximises consumption at the steady state – the so-called golden rule – that leads to an optimal capital-labour ratio. Below this optimal ratio, more savings are needed to accumulate capital. Above this ratio, more consumption would raise welfare.

Even if offering good insights on the mechanisms for growth, the Solow model may be too simple to derive interesting tax policy recommendations. Hindriks and Myles (2013, p. 817 and followings) propose a variant of the Ramsey Growth Model that includes a tax on labour income and a tax on capital income. The model assumes a representative agent that maximises her intertemporal utility. The presence of a representative agent implies that the model does not address redistribution issues and focuses only on efficiency. The solution for this model is that at the steady state the tax on capital income shall be zero. It is a very general result that echoes Chamley (1986) and Judd (1985). It ensures that the intertemporal allocation of resources is not distorted. As recalled by Hindriks and Myles (2013), this result is valid for the steady state and does not mean that along the path towards the steady state, capital taxation cannot be different from zero. Another important point in this model is that taxation falls entirely on labour. However, whether this is best achieved via a labour income tax or a consumption tax remains for now open. In the Ramsey model, an income tax at rate t is indeed equivalent to a consumption tax at rate $t/(1-t)$. Finally, an important characteristic of the model is that

a tax on factors does not affect their supply, which are fixed, and there is therefore no distortion via this channel.

Endogenous growth models, starting with Romer (1986), offer better insights in the role that tax policy can take to stimulate growth. These models add technological progress in both inputs. Capital (K) and labour (L) are now joined by technological change (A) that captures the level of technology that allows combining both inputs to produce outputs. In these models, labour is also not just a quantity variable but a broader concept – human capital (H) – that not only includes quantity (L) but also the quality of labour (I). It is important to stress that physical and human capital are not necessarily perfect substitutes, which means that large differences in taxation between the two may create further distortions. Finally, the model can include a public good, financed by taxes and that enters into the production function. One can think of the example of public infrastructures that allow for rapid transportation of physical inputs or goods. When a tax is imposed on the output of firms, its effects on growth are ambiguous. On the one hand, it decreases the marginal return on capital and hence the amount of capital used in the economy. On the other hand, the tax increases output thanks to the public goods it finances. This ambiguous effect of taxation on growth does not however change the conclusions seen in the exogenous tax model about which tax to use. Here again, a tax on labour is preferred to a tax on capital.

Endogenous growth models do not reach clear-cut conclusions on the effects of taxation on growth as many parameters (elasticities of substitution between human and physical capital, economic depreciation rates, the intertemporal discount rate, etc.) come into play. They however open the way for a bottom-up approach to taxation and growth, using growth accounting. Considering all elements entering into the composition of growth: investment in human capital, labour supply, investment in physical capital, productivity, R&D and innovation, domestic investment, inwards foreign direct investment, etc., we can investigate how taxation can affect these variables.

The theoretical predictions are relatively straightforward (for a review, see Johansson et al. 2008 and Joint Committee on Taxation, 2015). Labour taxation (including social security contributions) may affect labour demand and labour supply, both in the decision to take-up jobs (the extensive margin) and the number of hours worked (the intensive margin). Labour taxation may also affect investment in human capital (education and lifelong learning) by affecting the expected return to education (in terms of net-of-tax wages). Corporate taxation will affect the cost of capital and hence investment decisions (both in terms of level and location). Productivity will be affected by the design of personal income tax as progressivity, although desirable for redistribution policies, may affect risk-taking. Corporate taxation also affects investment in innovative projects. In addition, innovation may be boosted by tax incentives for R&D. Finally, the stability and possibly the simplicity of tax systems may affect decisions of economic agents.

The use of growth accounting also allows for distinguishing further the effects of taxes across different types of labour and capital inputs. It is possible, and empirically validated, that many tax policies do not have the same effects on different suppliers of labour (be it by gender, marital status, income level, etc.), different types of companies (be it by size, age, industry, distance to the technological frontier, etc.), or different types of investment (by types of assets, etc.). The actual influence of these variables turns then into an empirical question.

Before turning to empirical evidence, a last point deserves some comments. Economic policy usually recommends broadening tax bases and decreasing tax rates. This policy recommendation derives directly from the measurement of the deadweight losses created by taxes. In standard models with linear demand and supply, the economic distortion is proportional to the tax base and to the square of the tax rate. Hence, it is possible to design tax reforms that reduce economic distortions while being at the same time revenue-neutral: rate-cut-cum-base-broadening tax policies. This analysis has as corollary that the tax shall be inversely proportional to the elasticity, a result known since Ramsey (1927). It however focuses only on economic efficiency, leaving aside other considerations such as redistribution aspects. It might also wrongly lead to the conclusion that no tax expenditure is desirable while in reality some may have economic rationales and improve efficiency. This is the case of many taxes that correct market failures. In such case, one needs deeper analysis to conclude on the need of having such tax provision and on how to design it.

EMPIRICAL FINDINGS

Tax Regressions

The empirical analysis of the effects of taxation on growth is part of a wider research agenda starting with Barro's (1991) growth regressions. The results of this literature are somewhat disappointing. Myles (2009b) concludes that only a few variables are robust to various specifications of the estimation model: a East Asian dummy, ethnic diversity, schooling and education, the starting level of GDP (giving credit to the convergence theory). To some extent, there is also evidence of growth effects for trade openness, investment and low inflation. The disappointing results may be due to the fact that the regressions are burdened with many methodological problems. Regressions may be poised with collinearity, omitted variables, endogeneity, measurement problems, the choice of time lags, the usual claim that correlation is not necessarily causation, reverse causality, and the hypothesis of parameter homogeneity whereas countries may differ largely in their paths to growth.

Still, despite these problems, several authors have investigated whether the level and/or the structure of taxation could affect growth. As recalled by Myles (2009b), a relationship is far from being obvious when plotting tax variables against growth rates. The regressions by and large find a negative but insignificant effect of the total level of taxation, in line with the idea that the effect of

total taxation on growth depends on how efficient it is raised, how it affects other aspects of society such as redistribution and how wisely it is spent. Regressions also tend to indicate that "distortive taxes" (personal income tax and corporate income tax) have a negative impact on growth. These regressions however suffer from several problems. They generally lack a theoretical structural model that could be empirically tested. Instead, tax variables are "just tested" against growth. This also raises the issue of whether these taxes affect GDP levels or GDP growth, with which lags and with which potential long-lasting effects. It also raises the fundamental issue of which tax variable(s) to use. Economic theory indeed predicts that marginal rates are usually those that affect economic decisions. Marginal rates however vary across economic agents and tax bases are an integral and important driver of the tax burden. Some studies use average tax rates or tax ratios but these are also imperfect variables to summarize complex tax systems.

Another strand of the economic literature has specifically looked at the effects of the structure of tax systems on growth. The works of Arnold (2008) have been influential on policy-making. Arnold (2008) uses an error correction model with country fixed effects for a sample of 21 OECD countries over the period 1971-2004. The growth rate of GDP (measured as the yearly variation in the log of output per capita) is used as dependent variable. On the right-hand side of the equation, the first lag of the dependent variable, the (log of the) investment rate, the (log of the) stock of human capital (measured as the average years of education), the growth rate of the working age population, a vector of tax variables (defined as their share in total tax collection), country fixed effects and country-specific time controls are used as explanatory variables. The model also includes the first differences of the explanatory variables to control for their short-term effects and the total tax to GDP to control for level effects. This structure allows for testing the impact of individual taxes on growth, with one omitted tax variable being left out of the regression and assumed to balance the budget via revenue-neutral reforms. Arnold (2008) finds significant effects for the share of taxes in total taxation on growth. The shares of corporate income taxation and personal income taxation have strong significant negative effects on growth whereas the shares of consumption taxes (excluding property taxes) and recurrent taxes on immovable property have significant positive effects on growth. These results have led to the well-known ranking of taxes from the most to the least detrimental to growth.²

Using a similar methodology based on a Pool Mean Group (PMG) estimator, Acosta-Ormaechea and Yoo (2012) extend the analysis to 69 countries over the period 1970-2009. Importantly, whereas Arnold (2008) looks at the impact on the changes of long-term GDP per capita, they look at the impact on the changes in the growth rate of real GDP per capita. They find confirmation that property and consumption taxes are less detrimental to growth than income taxes.

² Previous research – reviewed by Shinohara (2014) – suggests that income taxes are more detrimental to growth than consumption taxes but without a strong consensus.

Interestingly, their results suggest that personal income taxes and social security contributions (SSC) are more harmful than corporate incomes taxes. Their results hold for high- and medium-income countries, but are not robust for low-income countries, arguably because of poor tax administration and enforcement.

The PMG estimator used in Arnold (2008) assumes that all countries have the same long-term coefficients, while allowing the convergence rate and the short-term effects to differ across countries. Several tests with additional controls, further lags of the dependent variables and tax indicators purged from the business cycles are carried out and confirm the results. Xing (2012) challenges the results of Arnold (2008). Her benchmark result equally finds that raising more government revenue from taxes on income is associated with a lower steady-state level of income per capita. Nevertheless, she cannot find significant differences between personal and corporate income taxes in terms of their growth friendliness. She cannot find either that recurrent property taxes score better than other property taxes. She also shows that using a different set for 5-years period, a different definition of investment share, adding a country-specific time trend, or controlling for cross-section dependence (i.e. correlation across countries in the error term for the same period), can alter the conclusions with regards to the choice of income versus consumption taxes. Finally, she argues that the homogeneity restrictions imposed by Arnold (2008) based on a Hausman test are rejected under an alternative Wald test. Her results without this restriction suggest that at best only the share of property taxes has an effect on long-term per capita growth.

Recently, Arachi, Bucci and Casarico (2015) reassess the link between tax structures and growth. The authors depart from previous literature in several ways. First, they control for cross-sectional dependence and use a Common Correlated Effect (CCE) estimator to allow for heterogeneity of long-term coefficients. Second, like Mendoza et al. (2007), they test the effects of implicit tax rates on top of classical shares in taxation ratios. Third, they reclassify taxes according to the margin they affect. For example, revenues of self-employed are split between labour and capital income and property taxes are added to the taxes on capital. The authors fail to find significant long-term effects of taxation that are robust. The small evidence that labour taxation has a negative impact may be driven by changes in the tax base, suggesting that there is a negative and significant relationship between the share of wages in GDP and GDP per capita. They authors find however robust and significant short-term effects of taxation that suggests a positive impact of shifting taxation to consumption. The authors take this as evidence of the efficacy of fiscal devaluations.

Growth Accounting Regressions

Given the limitations of growth regressions, another strand of the literature uses growth accounting to investigate how taxes may affect growth via their effects on intermediate variables. This approach has been more successful. Taxation affects labour decisions, notably the extensive margin

(see Meghir and Phillips, 2011 and Saez, Slemrod and Giertz, 2012 for recent reviews). There is also ample evidence that the sensitivity of labour supply to taxation is heterogeneous across groups of workers (see IHS and CPB, 2015). Likewise, there is also plenty of evidence that corporate taxation affects the intensive and extensive margins of investment via the user cost of capital (see Hassett and Hubbard, 2002 for domestic investment and De Mooij and Ederveen, 2003 and 2008 for FDIs). The role of the public sector on education is mainly on the expenditure side but tax policy can also affect the acquisition of skills, beyond those acquired by participating in the labour market. Indeed, taxation may affect the individuals' decisions to invest in human capital and firms' decisions to train workers. The evidence is however scarce and ambiguous (see Torres, 2012). R&D activities may be sensitive to taxation. A recent study by CPB (2015) shows that tax incentives have the potential to raise R&D spending as one euro spent on tax incentives leads to about one euro in additional R&D spending. However, the study also highlights that the outcome is highly sensitive to the design and practical organization of the incentives. These results suggest a role for taxation in stimulating many of the determinants of growth.

LIMITATIONS AND CONCLUSIONS

The results from the economic literature do not offer clear-cut and undisputed evidence but the big picture still lead to a strong indication that corporate/capital and labour taxes are the most detrimental for growth while consumption and recurrent property taxes are among the least damaging.

Some of the uncertainties in the theoretical models also stem from their assumptions and parsimony in the equations. For example, the equivalence between labour and consumption taxes in the Ramsey model for growth does not hold if nominal wages are rigid and/or if income includes non-labour income. In those cases, a consumption tax is less distortive than a wage tax (CPB, 2013). Theoretical models also leave out many of the distortions created by taxation, in particular by corporate income taxation (see Feldstein, 2006 for a discussion). Well-known examples of such distortions are the impact on organisational choice or the corporate debt bias, which generate misallocation of resources and hence deadweight losses that are usually not explicitly accounted for in theoretical analysis or empirical analysis by means of general equilibrium models.

Empirical analysis is also made arduous by the difficulty to include variables that fully reflect all aspects of taxes that matter for economic decisions. The same can be said about the classification of taxes and the choices of categories. An additional difficulty is to take proper account of short-term versus long-term effects. Fiscal devaluations – cuts in labour taxes financed by increases in VAT – are a particular form of tax shifts but with different timing and different policy goals. Tax shifts aim at making tax systems less distortive for long-term growth whereas fiscal devaluations seek to improve short-term competitiveness (Puglisi, 2014). These two concepts may be difficult to disentangle in

empirical studies, despite efforts to separately estimate short-term changes and long-term levels in the variables.

Growth regressions may also fail to capture the full effects of taxation because of the way models are specified. Recent evidence by Jaimovich and Rebelo (2015) suggest for instance non-linear effects of taxation on growth with small elasticities for low and medium levels of taxes and large ones for high levels. Growth models also further show that taxes may affect growth by affecting productivity and by altering factors accumulation. As acknowledged by Arachi, Bucci and Casarico (2015, footnote 2), the presence of factors of production variables on the right-hand side of the equations lead to an estimation that only takes into account the first channel and not the effects of accumulation. Finally, it is clear that economic growth depends on many other economic conditions that may not be properly reflected into the regressions (e.g. level of competition) and that taxation is only one determinant of growth among many others (see Barnes et al. 2013).

The empirical evidence based on growth accounting is more convincing on the role played by taxation. The interpretation of these results is however subject to having the full picture of the total effects of individual taxes on growth. As rightly stressed by Myles (2009a), the impact of a tax T on GDP via a policy variable A is the product of the impact of T on the variable A and the impact of this policy variable A on GDP. A large impact of taxation on a specific variable may in reality lead to little end effects on GDP if changes in the intermediate variable lead to small changes in GDP. Conversely, even a small impact of taxation on an intermediate variable may lead to a large GDP impact if the elasticity of GDP to this variable is sufficiently large.

There is good prospect that economists will be able to come up soon with better estimates of the impact of taxation on growth. Access to large databases of financial accounts of companies or individual taxpayers characteristics has been a breakthrough in economic research over the last decade. One can expect a similar breakthrough through an increased access to (anonymised) tax return data. There is also a better grasp of econometric techniques and recent advances in estimating the elasticity of taxable income taking advantage of discontinuities in tax systems, as well as advances in the study of behavioural economics, will increase our understanding of the effect of taxes on growth.

Taxation is often a mean for redistribution, which has an effect on inequality. This indirect channel need to be considered in the discussion on taxation and growth. According to OECD (2015), rising inequalities are a threat to the European social model and GDP growth prospects. Inequality in income is often accompanied by an unequal distribution of assets or wealth and there is evidence that for the latter the degree of inequality is currently even larger than in the case of income flows (European Commission, 2014a, 2015a). Ostry et al. (2014) provide a review of the literature on inequality and growth. Theoretically, inequality may provide incentives for entrepreneurship and innovation. Given the higher propensity of high-income households to save, it can also raise savings

and investment. However, inequality bears on access to education and health, generates instability and harm social consensus that affect investment. The effect of inequality on growth also depends on the means for redistribution as higher progressivity could affect entrepreneurship and investment in human capital (Diamond and Saez, 2011). Turning to empirical results, many papers find a negative correlation between inequality and growth, which appears then slower and less durable. Ostry et al. (2014) provide their own empirical analysis and conclude that lower net inequality is robustly correlated with faster and more durable growth, for a given level of redistribution. They also find that redistribution itself generally appears to have minor effects on growth. More progressivity within direct taxation could hence possibly be an efficient tool to ensure both the financing of targeted labour tax cuts while reinforcing equity/redistribution within the taxation of income.

What can we conclude? Hindriks and Myles (2013, p. 838) turn the problem on its head by concluding their chapter on taxation and growth by saying that "*As far as policy is concerned, [the low measured effect of taxation on growth] is a reassuring conclusion because it removes the need to be overly concerned about growth effects when tax reforms are planned*". It may be true that we shall not overemphasize the role of taxation on growth but there is to date enough evidence and indications to show that taxation plays a role on many determinants of GDP. Even assuming small effects on growth – which is disputed – the current unemployment levels in Europe call for cuts in labour taxation to stimulate labour demand and/or supply and tight budgetary situations in the Member States make it wise to make such reforms revenue-neutral by shifting the burden to taxes that are considered to distort economic decisions the least. Tax shifts find hence an additional rationale – promoting employment – acting on another channel for growth: factors accumulation.

REFORMS AND CONSTRAINTS IN EU MEMBER STATES

POLICY RECOMMENDATIONS

Reducing taxes on labour to boost growth, competitiveness and restore employment levels has been a priority for the Commission for years. As soon as 1993, under the Delors presidency, it acknowledged that high taxes on labour – in particular high SSC – may have a detrimental effect on employment. It invited Member States to consider cutting taxes on labour, especially on low-skilled workers (Commission of the European Communities, 1993). In the framework of the Lisbon Strategy (mid-2000s), the Commission stated that "*relatively heavy taxation on labour appears to have been a disincentive to the creation of additional jobs, especially low skilled jobs*", leading to recommendations to "*reduce the tax wedge, in particular for low wage earners*." (Commission of the European Communities, 2005).

Matched with the necessity of keeping Member States' public finances balanced, the call to lower taxes on labour has been accompanied by the recommendation to do so in a revenue neutral way

by increasing revenues for an equal amount from other tax bases. This is what is generally referred to as the tax shift, which is on the Commission agenda. Suggestions on how to achieve this and for which Member States it should be a priority have slightly changed over time. An early call for a tax shift for instance asks to compensate less taxes on labour by higher consumption and/or pollution taxes.³ In the first Annual Growth Communication (AGS) of December 2010 (European Commission, 2010), the EU executive reiterated the importance of a tax shift, saying all Member States should shift taxes away from labour in order to "*stimulate demand and create growth*", as part of a larger package of reforms aimed at making work more attractive. If needed for fiscal consolidation, increases in tax levels had to concentrate on indirect taxes, considered more "*growth-friendly than direct taxes*" and on measures to broaden tax bases. Broadening tax bases was mentioned as a way to compensate for tax cuts on labour. Since then, each year, the Commission has recalled the importance of shifting taxes away from labour in its AGS communications. In 2011, the AGS mentioned for the first time wealth as an alternative to finance labour tax cuts and the advice to shift taxes away from labour ended with saying that "*particular attention should be paid to the needs of the most vulnerable groups in any tax shifts*". That same year, the Commission qualified the tax shift message, saying that it should be a priority for "*a number of Member States*", those with "*high tax burden on labour (...) matched by a relatively low share of revenues from consumption and other indirect taxes*" (European Commission, 2011). Between 2012 and 2014 the AGS repeated the recommendation, stressing that: "*tax should be designed to be more growth-friendly, for instance by shifting the tax burden away from labour on to tax based linked to consumption, property and combatting pollution*" (European Commission, 2013).

Repetita iuvant. The Commission persistence and continuous emphasis through the European Semester on the importance of shifting taxes away from labour has shaped the tax policy agendas of a growing number of Member States. Several EU countries have taken action to turn EU level advice into national reforms. Evidence of the impact of the Commission's emphasis on the tax shift can be found in the reform programmes prepared by Member States as part of the European Semester cycle.⁴ In 2011, only a few Member States made shifting taxes away from labour an explicit objective of their reform programmes. Clear alignment with the Commission's objective came from Italy, which considered a "*shift in taxation from workforce (direct taxes) to taxation of consumption and resource use (indirect taxes)*" one of the key priorities of its fiscal reform; and from Estonia, which said: "*(...) we must support at every level a shift in taxation from workforce (direct taxes) to taxation of consumption and resource use (indirect taxes)*."

³ In 2010, with the EU 2020 strategy for smart, sustainable and inclusive growth, the Commission asked Member States to avoid raising taxes on labour and to seek "*to shift the tax burden from labour to energy and environmental taxes*".

⁴ Member States' national reform programmes for the period 2010-2015 are published online on the website of the European Commission on Europe 2020 at: http://ec.europa.eu/europe2020/index_en.htm

FROM RECOMMENDATIONS TO ACTIONS

Since then, several more Member States put forward the tax shift objective in their reform programmes. Belgium has for instance presented its commitment to "*reduce the fiscal pressure on labour income in order to encourage employment*", focussing on low- and middle-income categories, while taking compensatory budgetary measures. France has planned to enhance the cost competitiveness of its economy "*by shifting taxes and contributions away from labour towards less distorting taxes*". Equally, Finland has said it intended to shift taxes "*from taxation of work and enterprising hindering growth towards taxation based on environmental and health effects*." Germany has repeatedly stated its commitment to reduce the high tax wedge. Lithuania has announced a broad tax reform, including a tax shift "*towards the taxes that are less harmful to economic growth and creation of work places*". Finally, The Netherlands has stated its goal of a broad participation to the labour market, partly favoured by tax incentives for low income to find a job.

Member States have not only expressed their intention to carry out tax shifts, they actually took concrete measures to turn policy plans into reality. For instance, France introduced in 2013 a *crédit d'impôt pour la compétitivité et l'emploi*, while raising the standard VAT rate from 19.6% to 20%, and raising taxation of investment income. Also in 2013, Italy reduced taxes on labour by both reductions of SSC for employers as well as by increasing personal income tax credits for lower-earners. To compensate the cuts, Italy decided to increase the standard VAT rate in October 2013, among other measures. Belgium has recently announced measures to shift taxes away from labour with plans to increase taxes on capital income of individuals, environmental taxes, banking sector levies and stepping up the fight against social and fiscal fraud to finance these labour tax reductions. In 2015, Latvia has lowered personal income taxes and SSC and, to "*compensate [for] the drop in tax revenues due to the reduction of the labour tax wedge*", has taken further steps to reduce tax evasion and has raised environmental taxes. In 2015, Spain has reduced SSC for employers, while broadening tax bases. As from 2016, Austria intends to lower taxes on labour by reducing personal income taxation and SSC for employers, while increasing property and environmental taxes, and stepping up the fight against tax fraud and tax evasion.

However, despite commitments and actions by a growing number of Member States, the Commission has been cautious when assessing Member States' progress with shifting taxes away from labour. The Commission pointed out in various occasions that Member States were increasing (mainly) indirect taxes, yet without comparable reductions in taxes on labour. In May 2012 the Commission said explicitly that Member States were generally raising taxes rather than pursuing a tax shift: "*(...) While a number of Member States have significantly increased consumption taxes and started to reverse the decline in environmental taxation, there is no evidence of an overall reduction in labour taxation*" (European Commission, 2012a). The same message was repeated in 2013, and in

2014 the Commission said that "(...) *not enough is being done to reduce the high tax wedge on labour, although lower taxes on labour remain crucial for a job-rich recovery (...) the scope for reducing non-labour costs, notably the tax wedge, has not always been fully used given the current budget constraints (...)*." Yet, the trend was somehow changing: "(...) *but recent steps have been taken in that direction (France, Italy) and more action is foreseen (e.g. Spain)*" (European Commission, 2014c). A somehow more positive assessment was made earlier in 2015, when the Commission⁵ considered that Spain and Italy had achieved some progress with shifting taxes away from labour, and Belgium, Latvia and Hungary limited progress; yet, changes in the Czech Republic and Austria were still considered to amount to no progress (European Commission, 2015c).

Over the years, the qualitative assessment of the Commission has been backed by data showing no clear trend towards a tax shift EU-wide during the past years (see figure 1). It is only since 2014 that a decrease in SSC can be observed and, since 2015, that a decrease is foreseen in direct taxation. Moreover, when listing specific measures taken by Member States, it emerges that tax decrease on labour, particularly those targeted at specific groups, were an important feature of tax reforms only in the last year or two and with limited budgetary impacts⁶

CONSTRAINTS TO TAX SHIFTS

What has prevented Member States from pursuing more substantial tax shifts? This question arguably covers two aspects: there might be constraints for reducing taxes on labour and there can be limits to which taxes can be increased to compensate for tax cuts. When it comes to the former issue, Member States have argued that there exist budgetary/administrative constraints preventing labour tax reductions. Germany for instance made clear in its 2015 national reform programme that there are social policy constraints limiting the scope for further reduction of taxes on labour: "*after all, contributions and pension payments are contingent on one another*". Cyprus argued in its 2012 reform programme that "(...) *any shift of taxation away from labour towards other sources may be detrimental for the sustainability of the national social security fund, encroaching employees' rights for social security*." In other terms, if there is direct link between SSC and social benefits, a tax shift would be a problem for social security financing. In fact, depending on Member States' internal arrangements, some SSC may not be fully equivalent to taxes, but rather be considered as compulsory savings or insurance premia (pension, unemployment benefit, health care etc.).

⁵ Tax shifts have been one of the key strands of policy recommendations (CSRs - country specific recommendations) issued by the Commission at the close of each cycle of the European Semester. Since the first Semester cycle, at least six Member States have been explicitly recommended to shift taxes away from labour. Tax shifts is also flagged as an important labour market challenge especially for the Eurozone Member States in last June five Presidents' report on the future of the Economic and Monetary Union.

⁶ See table in Garnier et al. (forthcoming). The budgetary impact of tax shifts so far has been narrow.

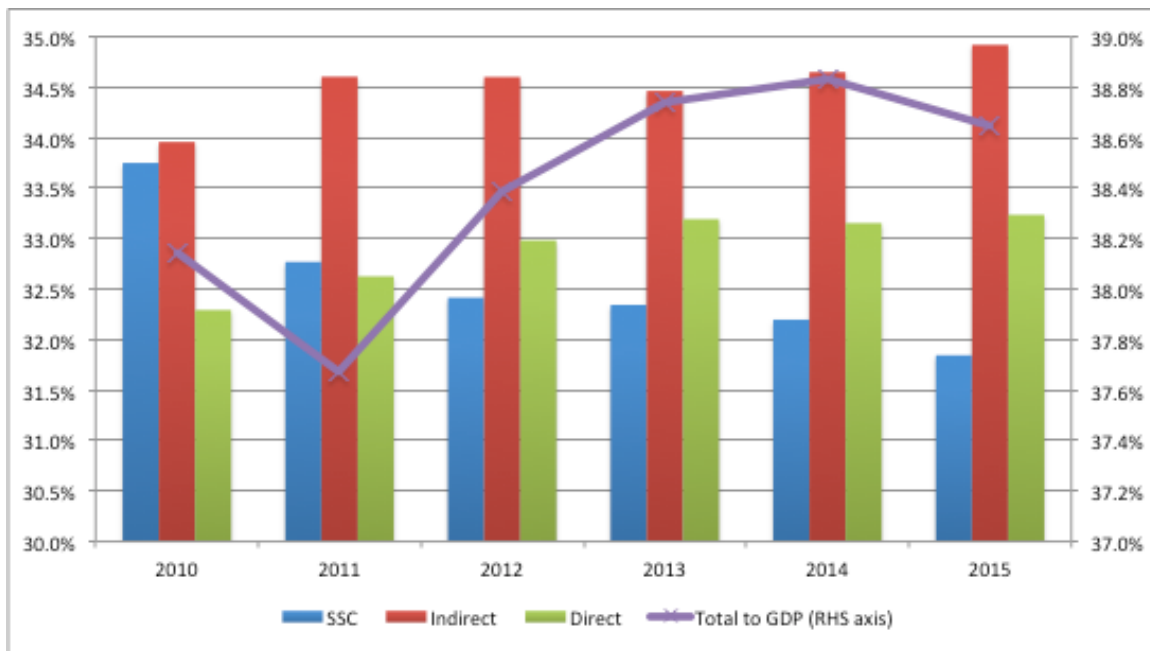
Regarding the latter aspect of the question – limits to which taxes other than labour can be increased to compensate for tax cuts – there are two main types of constraints: redistribution and competitiveness concerns. Since 2011, the Commission has acknowledged that shifting taxes away from labour might have a negative impact on redistribution. The 2015 AGS (European Commission, 2014d) pointed out clearly the possible negative effect of shifting taxes away from labour on redistribution, inviting Member States to take into account "*the potential distributional impact of such a shift*". Indeed, there is often a concern that indirect taxes might make the tax system less progressive.⁷ Therefore, several Member States, especially those with an already high share of indirect taxes to total taxation, may be facing resistance to further increase them. In addition to the redistribution constraint, a tax shift towards environmental basis is feared by some Member States to be detrimental to competitiveness. As an example, Estonia pointed out in its 2014 national reform programme that competitiveness was an important constraint for tax shift reforms leading to higher environmental taxes.

Some possible additional constraints, not explicitly expressed by Member States, can also be at play. One of those is the political economy constraint. The political economy of tax reforms has been reviewed in Castanheira et al. (2012). Increased political competition incentivizes policymakers to give up on the level of efficiency to achieve better targetability. The literature also shows a status quo bias. To circumvent this, policymakers can pursue gradual reforms that stage changes in different sub-reforms that may win the favours of different majorities. Testing empirically these theories, Castanheira et al. (2012) show that political constraints and incentives are true driver of tax reforms.

Finally, institutional constraints can create reforms hurdles in some Member States. A classical example is the case of countries with forms of fiscal federalism that assign different taxes to different levels of governments. Some situations may then arise in which different elements of the tax shift may finance different budgets. In Belgium, personal income tax is a shared competence between the federal and regional levels, VAT is a competence of the federal level whereas most environmental taxes (for example excises on fuel) are a competence of regions and recurrent property taxes are in the hands of regions and municipalities. With such configuration, not all tax shift seem feasible that balance all budgets at the same time without additional adjustments.

⁷ Even though the final assessment depends on the design of VAT taxes (e.g. reduced rates, exemptions, etc.).

Figure (1): Evolution of tax revenues in % of total taxation - 2011-2015 for EU-28.



Source: European Commission, AMECO database.

The next section advances some suggestions on how Member States' tax policy makers could continue to pursue a tax shift exploiting the opportunities offered by recent policy developments on the EU and global stage.

CONCLUSIONS - THE FUTURE OF TAX SHIFTS

ENVIRONMENTAL TAXATION

Environmental taxation has decreased in percentage of GDP over the last decade and remains a small source of tax revenues at around 2.5% of GDP (see table (1)). The lion's share of environmental taxation is on energy and in particular transport fuels. There may be potentially three reasons why this is so. First, the choice of the instruments to deal with environmental issues may have tilted towards regulation in the European Union. One example is the cap-and-trade EU Emissions Trading System (ETS) launched in 2005 that covers around 45% of greenhouse gas emissions. A second potential reason is the current difficulty to revise the Energy Tax Directive that would allow raising the minimum excise duties (currently set in many countries at historical levels and not adapted for inflation), basing them on CO₂ content instead of volume, and introducing a minimum CO₂ tax rate for emissions from sectors not covered by the ETS (households, transport, smaller businesses and agriculture). A third reason is the fear of putting EU businesses at a competitive disadvantage vis-à-vis other countries.

This latter point could be taken up in a scenario of tax shift. Barrios et al. (2014) compute an all-in effective tax rate for companies that includes labour, capital and energy inputs for a sample of 17 OECD countries and 11 manufacturing sectors. They find that when reforms are ambitious enough, policy strategies shifting taxes on labour towards energy can substantially reduce effective marginal taxation of companies and yield substantial gains for firms. These results are robust to alternative hypotheses regarding the tax incidence parameters, elasticity of substitution between factors and mark-up on final prices. Policy developments towards environmental taxation at the EU level or beyond could offer interesting perspectives for tax shifts.

Table (1): Environmental Taxation in % GDP 2002-2012

EU-28 GDP weighted average (arithmetic average)	2002	2012
Environmental taxes	2.6% (2.8%)	2.4% (2.6%)
On Energy	2.0% (1.9%) <i>among which transport fuel</i> 1.6% (1.4%)	1.8% (1.9%) <i>among which transport fuel</i> 1.4% (1.6%)
On Transport (excl. fuels)	0.5% (0.7%)	0.5% (0.5%)
On Pollution/Resources	0.1% (0.1%)	0.1% (0.1%)

Source: European Commission (2014b).

EXCHANGE OF INFORMATION

Recent years have witnessed substantial advances in the global fight against personal income tax avoidance and evasion. The introduction of new international standards of third-party reporting coupled with new obligation of automatic exchange of information in the field of taxation will increase the cost of avoiding taxes, making it less profitable and less attractive (European Commission, 2015b). Availability of information on global revenues of individuals is expected to reduce substantially the administrative capacity and information constraints currently faced by Member States when attempting to tax individuals on their worldwide income and/or assets.

These developments will not only improve the capacity of Member States to improve collection of specific taxes but will also allow them regaining some power in terms of their choices in the structure of the tax system and the degree of redistribution.

In particular, the argument that it is better to tax capital income at a lower – and often flat – rate rather than globalising them with labour income may therefore become less relevant for tax policy makers. Global exchange of information may indeed represent a "*paradigm shift*" in international taxation, as put by German minister of Finance Schäuble: "*We have really achieved a paradigm shift in the international co-operation between tax administrations, which is necessary in the face of*

globalisation. In the financial markets, banking secrecy cannot stay as it was as in the good old days."⁸

In December 2012, the European Commission (2012b) proposed an action plan to strengthen the fight against tax fraud and tax evasion. This sequenced action plan foresees actions in various tax fields with many initiatives to improve the exchange of information between tax administrations, promote administrative cooperation and encourage standards for tax good governance.⁹ A key instrument for these actions is the 2011 Directive on Administrative Cooperation (the so-called DAC) that is instrumental in modernising the legal instruments to enhance mutual assistance and cooperation between tax administrations. More recently, the 4th anti-money laundering directive¹⁰ requires the set-up in each Member States of a beneficial owners' national central register, which will contain information on the beneficial owners of all corporate and other legal entities incorporated within their territory.

Increased exchange of information and registration of owners of financial assets are at the heart of Zucman's (2015) proposals to tackle international tax fraud. Zucman indeed proposes the set-up of a worldwide financial wealth registry (to be managed by the IMF in his proposal) that would be able to monitor (tax) compliance and on which basis he thinks capital income or stock taxes could possibly be levied. In addition, he proposes to improve transparency by asking financial institutions to provide a split by country of origin of the ownership of the funds they manage.

TAXATION OF CAPITAL

There is evidence that the distributions of income and wealth have become more unequal, leading to growing inequalities. Increasing attention paid to inequality and redistribution might therefore make tax shifts towards capital and savings more attractive for policy makers.

The top tax rates applied to dividends and capital gains have increased in recent years. However, a gap remains between capital income and labour income taxation as the EU-28 average top personal income tax rate is nearly 20 percentage points higher than the top rates applied to dividends and capital gains (see figure (2)). Large differences of course exist across EU Member States. Between 2005 and 2014, 12 Member States increased (or introduced) their top rate for capital gains while 10

⁸ Retrieved from:

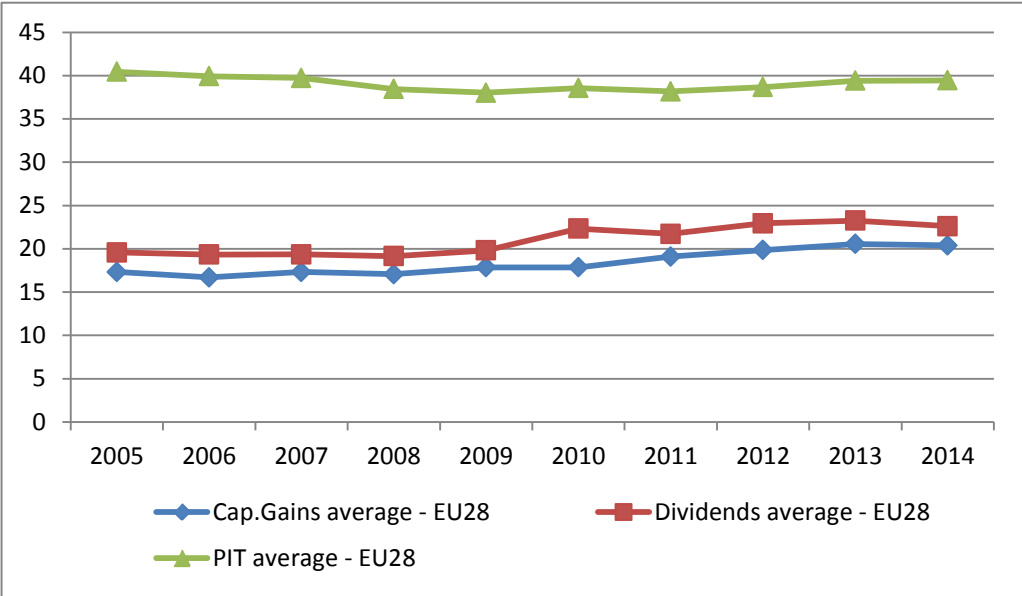
http://www.bundesfinanzministerium.de/Content/EN/Standardartikel/Press_Room/Quotes_from_the_Minister/quotes-from-the-minister.html?view=renderPrint

⁹ In March 2015, The European Commission has presented a package of tax transparency measures to tackle corporate tax avoidance and harmful tax competition in the EU, including a proposal to introduce the automatic exchange of information between Member States on their tax rulings.

¹⁰ Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing.

did it for dividends rates. In 2014, capital gains top rates stood above 40% in a couple of Member States but taxes on capital gains were inexistent in seven other Member States. The picture for dividend taxation is fairly similar with some Member States taxing at rates above 50% and others offering full exemption (Garnier et al. 2015).

Figure (2): Trends in EU-28 average top rates on capital income and personal income tax (PIT)



Source: ZEW (2014)

One important policy question relates to how and where to tax capital income. This problem has several dimensions. First, policymakers may want to make sure that capital income is indeed taxed and does not enjoy "double non-taxation". At the same time, it may equally want to make sure that capital income is not double-taxed. Imputation systems and exemptions have this goal by looking at the integration of taxation at both the corporate and individual levels.

A second dimension relates to the economic effects of taxing capital income. We have seen that corporate taxation is found to be particularly detrimental to growth. This needs however to be qualified as the total return to capital contains in reality two parts: the normal return to capital, which represent the "normal return" paid to investors under a competitive environment with zero economic profit¹¹, and the above-normal return or economic rents. Taxing the normal return to capital introduces distortions in terms of e.g. investment levels and location, but taxing economic rents is not distortive.¹² This is because investors will continue investing in a project as long as there is some economic profit

¹¹ The economic profit is the profit made by a corporation after deduction of all its production costs including its financing costs (interests and dividends), the price of those costs being set under perfect competition (i.e. their opportunity costs).

¹² Provided these rents are location-specific otherwise if these rents are mobile the location of investment may be distorted, although not necessarily the level.

to reap. From a growth perspective it would then be advisable to exempt the normal return to capital. In practice, we have a mixed situation as most Member States have corporate tax systems that allow for the deductibility of interest paid and the inclusion into taxable profit of interest received, and that disallow the deductibility of the return on equity and exempt dividend received from corporate taxation.

This leads to the third dimension of the problem which is whether to tax capital income at the level of corporations or at the level of individuals. Arguably, individuals are less physically mobile than companies (even though they can evade income) and, although taxing their capital income could affect the overall savings, it is not clear whether this is worse than affecting investment decisions of companies via corporate taxation. The taxation of interest received is generally a given for both corporate and individual investors. When it comes to taxation of dividends at corporate level, the literature is divided between the "old view" that states that it increases the effective tax rate on investment and reduces investment, and the "new view" that it has no impact on firms' investment as companies will favour retained earnings for new projects. The argument goes that even if this may reduce savings, foreign capital will substitute for domestic one. Empirical results go in both directions.¹³ When it comes to taxing dividends at the level of individual investors, there is the presumption that it can reduce entrepreneurship.¹⁴ The question remains however as whether a shift from corporate or labour income tax towards capital income of individuals would have a net positive effect on GDP and growth.

Several aspects have evolved in ways that may alter the approach we have vis-à-vis taxing capital. The approach to capital taxation is increasingly moving from a domestic to an international focus. As stated by the European Commission (2015b), the current system for corporate taxation was built on the work of the League of Nations in the 1920s and that of the OECD after WWII and has progressively become unfit for taxing new business models with IPs and intangibles. This situation has weakened the backstop function of corporate income taxation. Capital mobility has also progressively led to difficulties to tax capital income. In addition to this, as stated above, taxing the return to capital at the corporate level has a negative effect on investment (both domestic investment and inward FDIs). Greater neutrality would command exempting the normal return to capital from taxation.

Traditional personal income tax systems used to be comprehensive, merging capital income with labour income and taxing the sum at a progressive tax schedule. Such system has however the problem of finding the right way to tax capital gains. On the one hand, taxing unrealised capital gains may lead to liquidity problems for taxpayers and, on the other hand, taxing them at realisation may

¹³ See Dackehag and Hansson (2015) for a recent review of the literature and additional empirical results.

¹⁴ See Keuschnigg and Nielsen (2002) for theoretical arguments. Empirical research on this subject generally focusses on capital gain taxation, not dividend taxation.

give rise to lock-in effects as taxpayers would have to pay the tax liability at once, pushing them into brackets with high marginal tax rates. Taxpayers then prefer to hold their assets to defer taxation. In contrast, dual tax systems continue to subject labour income to progressive taxation but tax capital income at a separate low flat rate below the top marginal tax rate on labour. Such systems have progressively appeared as a compromise between a comprehensive income tax and the expenditure tax that completely exempts the normal return to capital from tax (Sørensen, 2010).

Over the last years, progressivity of labour income taxation has been increasingly constrained by many opportunities for tax avoidance (e.g. requalification of labour income as capital income, remunerations for labour in form of bonuses, shares or in kind benefits instead of wages). Gruber and Saez (2002) find higher elasticity for the top earners than for the middle income, especially for those who opt for itemized deductions. This would call for moderate top personal income tax rates on labour income. However, Diamond and Saez (2011) challenges this interpretation on two grounds. First, the tax avoidance channels usually include a shift to other tax bases or deferral. Hence, they do not necessarily call for a change in the top rate as those revenues end up being taxed (even though possibly at a lower rate). Second, this elasticity for top income is not immutable and can be reduced via a broadening of the base (Gruber and Saez (2002) find much lower elasticities for income before deductions) and via enforcement. The intensification of the fight against tax fraud and evasion, enabled by new standards of third-party information and more widespread and automatic information exchange may hence change the future of taxation of personal income and may offer Member States the power to regain control on these tax bases and on the level of progressivity and of taxation that reflects domestic social preferences and policy choices. This is the essence of Kleven (2014) who finds that an explanation of the economic and social success of Scandinavian countries despite high taxation levels lies in enforcement policies helped by third-party reporting.¹⁵

This improved identification of recipients of capital income should help tax authorities to regain power on the taxation of capital income. An interesting recent proposal that addresses many of these issues is Cost of Capital Allowance (COCA) by Kleinbard (2015). In essence, the COCA is a system that combines a notional interest on capital (equity and debt) at the company level and its taxation at the investors' level. The deductible notional interest on capital would allow companies to be taxed on their above-normal return to capital, leaving the normal return untaxed.¹⁶ Instead, this normal return could then be taxed at the level of investors in a way left at the discretion of tax authorities. This

¹⁵ Other explanations are transfers and work subsidies (by lowering the prices of goods complementary to work such as child care facilities), and social and cultural influences (Kleven, 2014).

¹⁶ The COCA system would replace the current traditional systems that allow interest deductibility but disallow the deductibility of financing costs via equity/retained earnings. By treating debt- and equity-financing equally for tax purposes, it also addresses the corporate debt bias (see Fatica et al. 2013 for a discussion on the debt bias). To avoid an accumulation of the COCA base and keep the system incremental for new investment, Kleinbard (2015) also proposes to adjust the COCA base for depreciation of assets.

system would ensure that all capital income is taxed at least once but with no double taxation, no complicated assessments and it would offer full integration between corporate and personal income taxation. As we see, the fight against fraud and evasion and a better identification of income recipients offer new innovative potential solutions that could be considered in a context of tax shift.

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