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Towards tax reforms that reconcile efficiency and equity concerns

This supplement to the Quarterly Review provides in-depth analysis of recent labour market and social developments. It was prepared by G. Lejeune, J. Lüttge, and V. Maestri from the Employment Analysis and Social Analysis Units in DG EMPL.

Employment and social analysis portal: http://ec.europa.eu/social/main.jsp?catId=113&langId=en

Contact: empl-analysis@ec.europa.eu

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Towards tax reforms that reconcile efficiency and equity concerns

Introduction

In recent years, which have been marked by a deep and protracted economic downturn in most EU Member States, tax reforms were primarily focussed on fiscal consolidation. Looking forward, it is important that Member States undertake the necessary tax reforms to boost economic growth and employment. At the same time, it is important to take into account equity concerns when designing these reforms. Indeed, apart from affecting aggregate demand, tax reforms also have important direct labour market and social impacts, as they:

- affect employment, in particular through taxes on labour;
- are used to finance social protection, while people working undeclared may not be covered by social protection;
- affect poverty and inequality.

Tax reforms should try to balance concerns of efficiency (effects on employment and growth) and equity (effects on distribution and inclusion)[1]. In an environment of constrained public finances, tax reforms should focus on making the tax structure more growth and job-friendly, for example through a shift from taxes which are more detrimental to growth (on labour[2]) to taxes which are less harmful to growth (consumption, green and recurrent property taxes). When designing tax reforms, it is important to consider equity concerns. This supplement recalls the conclusions from our previous analysis[3]. It adds the recent policy recommendations on tax shifts and elaborates on tax evasion.

Labour taxation affects employment

Labour taxation is made up of social security contributions paid by employers and workers and personal income tax paid by workers. Labour taxes affect the demand for and supply of labour. The effects occur through the difference between the net salary received by the worker and the total cost of the worker to the employer: this difference is the tax wedge.

On the demand side, higher social security contributions paid by employers, with constant wages, are a disincentive for companies to employ workers as it raises their cost. Higher employee contributions and/or higher personal income tax, if resulting in higher gross wage levels, can also be a disincentive to employment[4].

On the supply side, raising labour taxation, particularly in combination with benefits, can produce a disincentive to work as workers find it less attractive to work (substitution effect). However, at the same time it can be an incentive to work more to make the same net income as before (income effect). Empirical evidence shows that the structure and design of tax and benefit systems can create disincentives to work for specific groups. These include low-income workers, single parents, second-income earners and, by extension (through pensions), older workers.

The financing of social protection

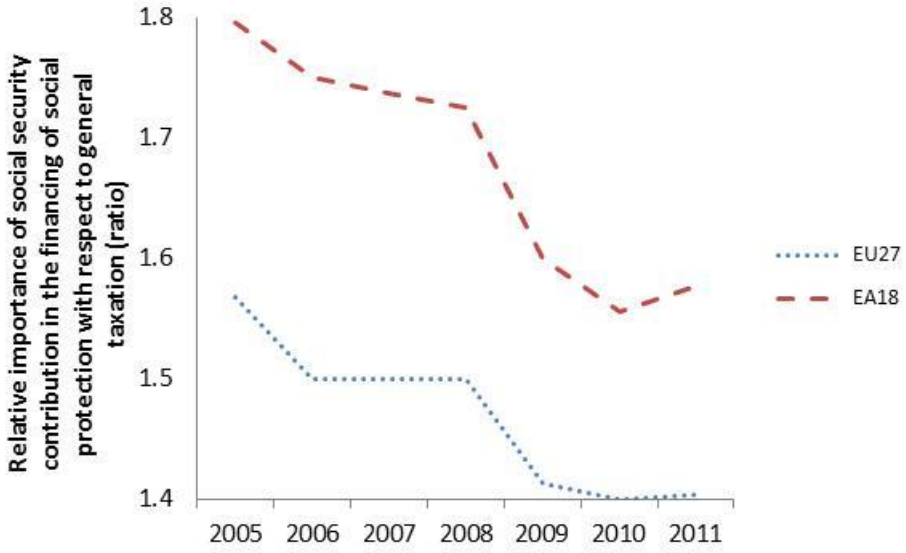
Social protection includes expenditure on healthcare, family, unemployment and old-age. It may be financed in two major ways: through social security contributions paid by the employee and the employer or general government taxation. The financing of social protection varies widely across Member States, with social security contributions accounting for between 20% and 30%

[1] Next to other concerns, such as the effects on the (ecological) sustainability of the economy.
[2] We do not look specifically at corporate taxation in this supplement.
[3] See Chapter 4 of European Commission (2013).
[4] Note that in a perfectly competitive labour market with flexible wages, only the total tax wedge matters: different components of the tax wedge exert then identical effects on employment (Econpubblica (2011)).

of total receipts in Denmark and Ireland and around 60% for most Member States (Social Protection Committee, 2014). Social security contributions are a form of insurance payments for employees and, to a smaller extent, self-employed, although the correspondence between compensations for risks and payments is not straightforward.

Looking at the developments over the past years, social protection is increasingly financed by general government contributions, due to cyclical (e.g. the decline in employment in the recent years) and structural factors. This requires further investigations into the implications for the financing of social protection and for the entitlement to benefits of a tax shift such as a reduction in social security contributions compensated by an increase in consumption taxes.

Chart 1 - Trends in the financing of social protection



Sources: ESSPROS.

Tax recommendations in the European Semester

As tax reforms are high on the European policy agenda, most Member States received a 2014 Country Specific Recommendations (CSR) on taxation. CSRs on taxation generally concern reforming the tax system in a more growth- and employment friendly way as well as fighting tax evasion.

A shift of the tax burden away from labour was explicitly recommended to Austria, Belgium, the Czech Republic, Italy, Latvia, and Spain. For four out of these six countries, the recommendation specifies a lowering of the tax burden on low-income earners (Austria, the Czech Republic, Latvia, and Spain). Additional CSRs included labour taxation reform without explicit mention of a tax shift: France and Germany received a recommendation to reduce the tax burden on labour, Romania to lower the tax burden on low-and middle-income earners in a budget-neutral way, Hungary to reduce the tax wedge on low-income earners, and the Netherlands to reduce tax disincentives on labour. In the case of France and Germany the recommendation also included a broadening of the tax base in other realms (in particular on consumption).

Recommendations on the revenue side are included in many countries' CSRs. The recommendations to seven countries called for raising revenues via property taxes (Austria, the Czech Republic, Italy, Latvia, Lithuania, Spain, and Sweden); and to a further seven via environmental taxes or phasing out of environmentally harmful subsidies (Belgium, the Czech

Republic, France, Italy, Latvia, Lithuania, Spain). Six countries received a recommendation to broaden the consumption tax base (France, Germany, Italy, Luxembourg, Portugal, and Spain), while three countries received a recommendation calling for broadening the tax base without further specification (Belgium, Ireland, and the UK).

Twelve countries also received a recommendation to step up the fight against tax evasion, to improve tax compliance, to tackle the shadow economy or to address undeclared work (Bulgaria, Croatia, Czech Republic, Hungary, Italy, Latvia, Lithuania, Malta, Poland, Portugal, Romania, and Spain). The Country Specific Recommendation for Belgium specifically includes a call to close tax loopholes, addressing tax avoidance

Box: Some simulation results for the impact of tax shifts

In this box, DG EMPL's Labour Market Model (LMM)[5] is used to simulate the impact of a tax shift away from labour. LMM is a dynamic computable general equilibrium model providing an in-depth description of the labour market, distinguishing different age groups and skill levels so that it is possible to show what role those characteristics play in determining the long-run impact of such policy changes. LMM is a set of country-specific models, which cover 14 Member States. Results from LMM are country-specific to the extent that they take into account the country's labour market structure in terms of age and skills. However, elasticities are calibrated and are not country-specific.

The simulation assumes that the government lowers employers' social security contributions by an amount equivalent to 0.1% of GDP, financed by a shift in the value-added tax rate (VAT). We consider four different scenarios:

1. lowering the contributions for all workers ('all')
2. concentrating the measure on low-skilled workers ('low-skilled')
3. concentrating the measure on young workers, aged 15-24 years ('young')
4. concentrating the measure on older workers, aged 55-69 years ('older')

The results focus on the long-term effects (with a horizon of about 20 years), while initial effects, not presented here, can be different. The following describes the general impact on employment, productivity and GDP.

Table 1 – Impact of a tax shift away from labour on employment, productivity and GDP

	Employment (number of workers)				Labour productivity				Real GDP			
	All	low-skilled	young	older	All	low-skilled	young	older	All	low-skilled	young	older
Belgium	0.01%	-0.01%	0.05%	0.06%	0.00%	-0.03%	-0.05%	0.01%	0.01%	-0.07%	-0.05%	0.07%
Czech Republic	0.03%	0.04%	0.08%	0.08%	0.00%	-0.04%	-0.03%	0.01%	0.03%	-0.03%	0.05%	0.09%
Denmark	0.04%	0.01%	0.10%	0.05%	0.00%	-0.04%	-0.05%	0.01%	0.05%	-0.09%	-0.03%	0.07%
Germany	0.02%	0.04%	0.06%	0.02%	0.00%	-0.04%	-0.05%	0.01%	0.02%	-0.02%	-0.02%	0.04%
Spain	0.02%	0.02%	0.11%	-0.01%	0.00%	-0.03%	-0.06%	0.01%	0.02%	-0.07%	-0.08%	0.01%
France	0.02%	0.04%	0.13%	0.04%	0.00%	-0.03%	-0.08%	0.01%	0.02%	-0.02%	-0.03%	0.06%
Italy	0.02%	0.01%	0.07%	0.14%	0.00%	-0.02%	-0.03%	0.01%	0.02%	-0.04%	-0.03%	0.18%
Netherlands	0.02%	0.01%	0.07%	0.01%	0.00%	-0.05%	-0.07%	0.01%	0.03%	-0.08%	-0.06%	0.03%
Austria	0.02%	0.04%	0.05%	0.05%	0.00%	-0.04%	-0.04%	0.01%	0.02%	-0.02%	-0.01%	0.07%
Poland	0.02%	0.06%	0.10%	0.09%	0.00%	-0.04%	-0.05%	0.01%	0.02%	-0.01%	0.00%	0.10%
Slovakia	0.02%	0.04%	0.05%	0.04%	0.00%	-0.03%	-0.02%	0.01%	0.02%	-0.02%	0.02%	0.04%
Finland	0.01%	0.00%	0.11%	0.00%	0.00%	-0.02%	-0.05%	0.01%	0.01%	-0.06%	0.00%	0.00%
Sweden	0.01%	-0.03%	0.15%	0.00%	0.00%	-0.03%	-0.05%	0.00%	0.01%	-0.12%	-0.04%	0.01%
United Kingdom	0.02%	0.03%	0.06%	0.02%	0.00%	-0.04%	-0.04%	0.00%	0.03%	-0.03%	-0.01%	0.02%
median of 14 MS	0.02%	0.02%	0.07%	0.04%	0.00%	-0.04%	-0.05%	0.01%	0.02%	-0.04%	-0.02%	0.05%

Source: Outcome of LMM simulations by country of a lowering of employers' social security contributions by an amount equivalent to 0.1% of GDP, financed by a shift in the value-added tax rate.

[5] LMM was developed for the European Commission, DG EMPL, by the Institute for Advanced Studies (Vienna) and the University of St. Gallen. See also Annex 2 to Chapter 2 of European Commission (2010), 'Employment in Europe 2010'

The simulation results confirm that the outcome of this tax-shift policy measure depends very much on the skills composition of the workforce. As the different target groups' characteristics in terms of relative size, age and skills composition vary greatly across Member States, so too do the simulation results. There is, however a general message, namely that a targeted measure would be more effective than a non-targeted measure in employment terms, but at the cost of lower GDP in the case of the young and the low-skilled. This is because LMM allows for (and emphasises a lot) the educational choice at the beginning of one's career to be endogenous. As being low-skilled becomes relatively more attractive, more people would decide not to invest in higher education but stay in the low-education segment.

For these two groups, given their lower productivity and wage levels, a given tax stimulus will constitute a relatively strong positive incentive both from the demand side (lowering labour costs) and the supply side (raising net wages). On the other hand, it is mainly low-skilled, low-productivity employment that is produced in these scenarios. This may result in an overall reduction in average productivity owing to a shift in the skills mix of the workforce towards lower-skilled and hence less productive jobs.

In addition, it must be noted that additional low-skilled employment opportunities may not only draw workers exclusively from the already existing low-skilled workforce, but may also attract other skill groups attracted by the higher wages and better job prospects in the low-skilled sector who might decide not to undertake the costly process of acquiring medium-level skills.

Tax shifts can stimulate employment but may have adverse social effects

Shifting taxation away from labour is an important means of stimulating employment, particularly for the specific groups mentioned above, and long advocated by the EU in the European Semester.

Country-specific factors (level of progressivity, importance of tax expenditures, minimum wages, etc.) determine the extent to which a shift from labour to consumption taxes increases employment. Although reductions in labour taxation targeted at the most vulnerable groups (e.g. low-skilled) are more efficient in raising employment, the increased employment will come at the expenses of lower average productivity (European Commission, 2012 and box above).

Tax redesign calls for prudence when looking for sources to replace the lost revenues from lower labour taxes. While value added tax, green taxes and property taxation are obvious candidates, their increase can have immediate and unfavourable distributional effects and hinder the goal of fighting poverty. Indeed, specific categories of people such as unemployed and retired may not benefit from a reduction in labour taxes (European Commission, 2012).

Analysis demonstrates that tax shifts can result in trade-offs between employment and social effects, although an appropriate design will increase the desirability of some tax shifts. For example, the regressive effects of VAT could be mitigated by providing compensations to targeted groups (unemployed, retirees), and by focusing on standard rather than reduced rates and exemptions. Similarly, green taxes linked to car ownership represent a lower tax burden for the lower income groups than taxes on heating and energy, and in principle a proper taxation of imputed rent[6] can achieve both employment and social goals (European Commission, 2012).

Finally, other measures, such as the reform of tax expenditure and the fight against tax evasion and avoidance, can positively contribute to achieving both employment and social policy goals.

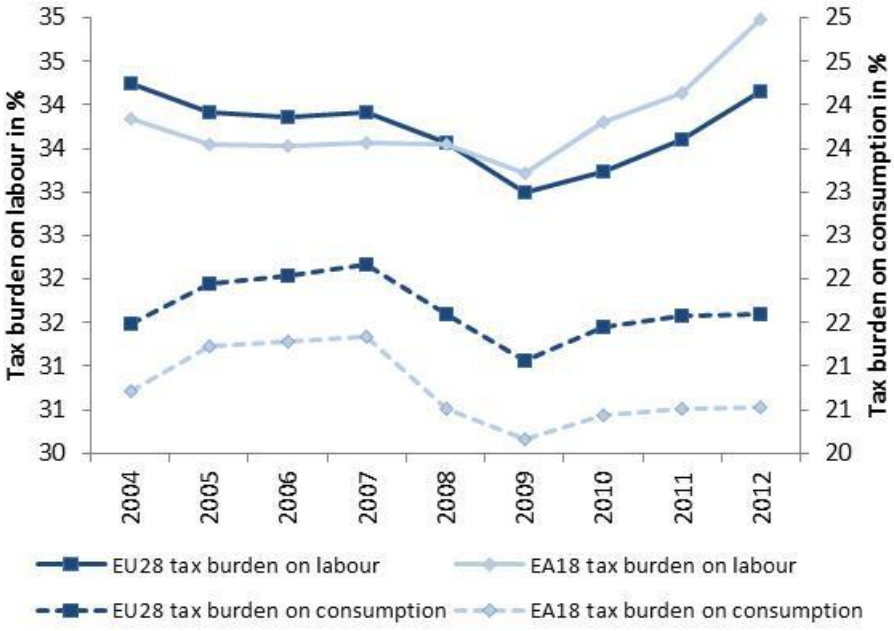
[6] For instance, the taxation of imputed rent under the personal income tax base combined with a lump-sum tax credit.

Tax reforms: shifting taxes from labour to consumption

The reduction of the tax burden on labour is high up on the policy agenda of several Member States. However, given fiscal consolidation efforts, Member State appear to have no room to reduce the tax burden on labour without shifting the burden elsewhere (European Commission, 2014b). While green or property taxes are valuable alternatives to shift taxes to, the following focuses on the shift to consumption taxes due to their relative prominence.

Several Member States have a very high tax burden on labour and a relatively low level of taxes considered to be less detrimental to growth, such as on consumption, property and the environment. A shift of taxation from labour to consumption, property and the environment has been recommended to these Member States. Belgium, Germany, France, Italy, Latvia, Hungary, Romania and, to a lesser extent, the Czech Republic, Austria, Finland and Sweden have been identified as the Member States with need and potential for a tax shift (European Commission, 2014b). The first group of Member States has received a CSR on a shift of the tax burden away from labour or on a labour taxation reform without explicit mention of a tax shift (see above).

Chart 2 – Developments in tax burdens on labour and consumption, EU28 and EA18

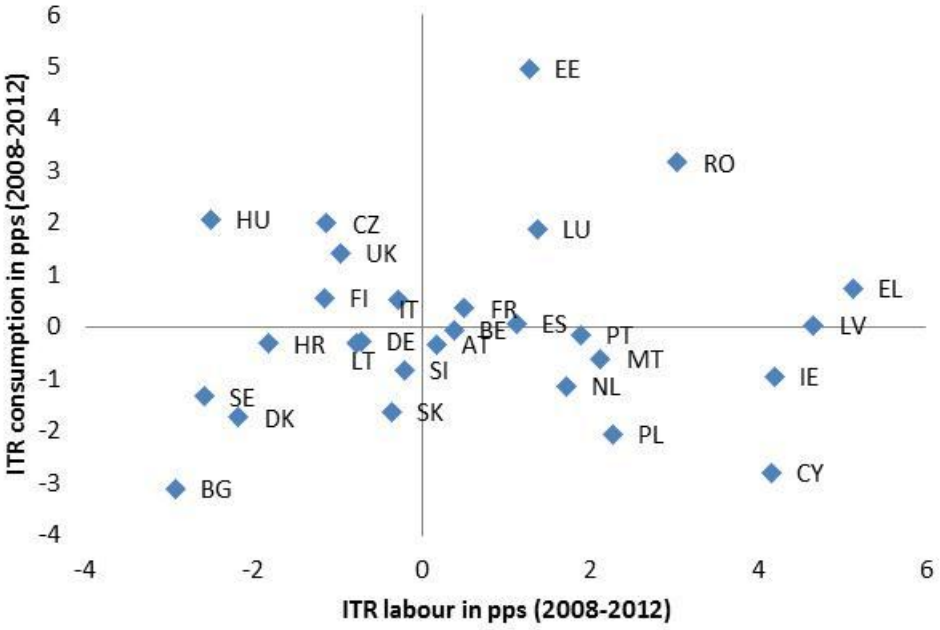


Source: 'Taxation trends in the European Union, 2014'. Notes: tax burden is measured by the implicit tax rate (on labour and consumption).

A tax shift from labour to consumption taxes was observed before the crisis. Due to the deep economic crisis, recent increases in consumption taxes (especially VAT) were aimed at addressing public finance concerns, not at reducing the labour tax burden[7]. Several Member States also increased labour taxes, in some cases for high income earners (while sometimes continuing to decease the burden for low income earners): since 2008 the implicit tax rate on labour increased by 0.6 pp in EU-28 and 1.5 pps in EA-18 up to 34.2% and 35% in 2012, respectively (Chart 2).

[7] In this supplement we measure the tax burden by the implicit tax rate. This measure expresses tax revenues of each tax category (labour, consumption) as a share of the corresponding tax base. Implicit tax rates are less sensitive to the economic cycle than other measures.

Chart 3 - Trends in labour and consumption tax burden, 2008-2012, percentage points



Source: Tax trends in the EU database.
Notes: see footnote 7.

In around half of the Member States the tax burden on labour increased between 2008 and 2012, especially in Greece, Latvia, Ireland and Cyprus (more than 4 pps), while it decreased particularly in Bulgaria, Sweden, Hungary and Denmark (more than 2 pps) (Chart 3). However, since 2012 two thirds of Member States have implemented targeted cuts in labour taxation. The tax burden on consumption decreased in most Member States between 2008 and 2012, also due to cyclical factors (shift from more to less heavily taxed consumption goods). The reduction of the tax burden on consumption was considerably high in Bulgaria, Cyprus, Poland (more than 2 pps), while Estonia experienced a sharp increase in the tax burden on consumption (5 pps).

The top left quadrant of Chart 3 identifies the Member States (notably Hungary) where the tax burden on labour decreased, while the tax burden on consumption increased between 2008 and 2012. Member States in the bottom left quadrant (notably Bulgaria) the tax burden on labour fell, as well as that on consumption. On the other hand, in Austria, Belgium, France, Latvia, Romania, and Spain the tax burden on labour increased until 2012, although they received a recommendation on lowering the tax burden on labour.

While these Member States did not all manage to reduce the tax burden on labour due to a lack of fiscal space, at the same time they lose a considerable amount of taxes to the shadow economy.

Tax reforms: increasing revenues by fighting tax evasion

This section explores the issue of the fight against tax evasion. The aim of this analysis is to underline the importance of this challenge. The section provides a tentative estimate of the tax loss due to evasion. The results should be interpreted with caution as much uncertainty surrounds the indicators used. Furthermore, it is important to stress that not all lost revenues would be captured in a situation of full compliance as certain activities would not be carried out if required to oblige with all legal obligations. Fighting tax evasion is not a straightforward process and can only be expected to yield gradually increasing results over time. In this context, fighting tax evasion may be seen as a complement, not necessarily an alternative, to existing tax policies (i.e. labour and consumption taxation).

In several Member States a relevant share of tax revenues is lost to tax evasion. If part of these revenues could be realised, they may be used to contribute to a variety of aims, depending on country-specific circumstances, including strengthened public finances and support to reach the employment and social targets in the Europe 2020 strategy. The fight against tax evasion and avoidance is an issue that goes beyond national boundaries. The power to levy taxes is central to the sovereignty of the Member States, which have assigned only limited competences to the EU in this area[8]. At EU level, tax policy is geared towards the smooth running of the single market; EU efforts to pursue harmonisation in this area are therefore mainly focused on indirect taxation. Alongside these efforts, the EU is stepping up its fight against tax evasion and avoidance, which constitute a threat to fair competition and are the cause of a major shortfall in tax revenues. As tax evasion does not stop at the border of the EU, measures must also look beyond the borders of the EU in order to be effective, in co-operation with international organisations such as the OECD and the UN.

The 2015 Annual Growth Survey states that "addressing tax fraud and tax evasion is essential to ensure fairness and allows Member States to collect the tax revenues due to them" and added that "broadening tax bases, simplification and enhanced transparency can also help increase the efficiency of the tax system and improve tax compliance as well as the fight against aggressive tax planning".

Tax evasion and social issues are closely related. Higher levels of inequality are associated with a higher probability of tax evasion while tax evasion affects the level of inequality and poverty. Indeed, the probability of tax evasion is seen to vary between different income groups, with those at the bottom and the top of the distribution having greater opportunities to evade tax than those in the middle (European Commission, 2012). While tax evasion can be fuelled to some extent by weak labour demand and rising levels of poverty, it undermines public finances, social cohesion (European Commission, 2014) and may also increase inequality. In Greece, for instance, tax evasion is estimated to increase inequality as measured by the Gini coefficient by 3 pps with respect to a situation of full compliance (Leventi et al., 2013).

The shadow economy includes those economic activities and the income derived thereof that circumvent or avoid government regulation or taxation. A large share of the shadow economy is undeclared work which refers to the wages that workers and businesses do not declare to evade taxes or labour market regulation. The rest is represented by business underreporting income to evade taxation. Estimating the size of the shadow economy, undeclared work and of their corresponding tax loss is complex. Eurostat does not provide official estimates of the shadow economy and estimates are scarce[9]. However, CASE and CPB (2014) provide data on the VAT gap, which is the difference, in any given year, between the VAT Collections (as recorded by EUROSTAT) and the amount theoretically due, i.e. VTTL (VAT Total Tax Liability). The latter is the total amount of estimated VAT payments on the basis of national accounts aggregates and the existing structure of rates and exemptions (TAXUD, 2013)[10].

[8] http://www.europarl.europa.eu/aboutparliament/en/displayFtu.html?ftuId=FTU_5.11.1.html
[9] Including illegal activities in GDP is not a requirement of the new ESA (ESA 2010). As before, all transactions involving mutual consent must be included in GDP, so this could cover prostitution, drugs trafficking and alcohol/tobacco smuggling. With the introduction of ESA 2010, Member States will have to provide at a later stage new inventories showing how they compile their national accounts, with an emphasis on the unreported economy
10 See also European Commission (2014b) on caveats on this indicator.

Estimates of undeclared work are generally based on surveys. The special Eurobarometer survey on undeclared work from 2007 and 2013 is the main available source at EU level. However, these estimates tend to under-report the extent of undeclared work, partly because irregular immigrants are underrepresented in the sample (European Commission, 2014a).

The size of the shadow economy is usually estimated with indirect methods. We report and use possible estimates of the shadow economy based on three different methodologies. Note that these estimates are not official estimates of the European Commission. For some Member States only estimates from one or two methodologies are available. The three sources for the estimates of the shadow economy are Schneider (2013), Onnis and Tirelli (forthcoming) and OECD (2014) which are based, respectively, on the following methodologies: the Multiple Indicators Multiple Causes model, which assumes a relationship between the unobserved shadow economy and a set of observable variables (notably monetary ones)[11]; the electricity consumption approach, and the adjustments for the non-observed economy (NOE) in National Accounts. The first methodology is subject to significant caveats and tends to overestimate the level of the shadow economy (European Commission, 2014). Estimates produced by these three methods may potentially include illegal activity. However, for our measure of the non-observed economy (NOE), we only consider the underground economy and the informal sector and exclude illegal activities and statistical deficiencies.

Table 2 reports range estimates of the tax loss as a result of the shadow economy[12] in EU Member States, split into a part due to undeclared work and a part due to unregistered consumption transactions. The shadow economy and tax loss estimates in this supplement are only made for illustration purposes and should not be seen as official Commission estimates.

We estimate the tax loss due to the shadow economy by assuming that two thirds of the shadow economy is due to undeclared work and one third by business underreporting[13].

According to Eurobarometer data, respondents who declared to carry out undeclared work were mostly working in repairs and renovations, gardening, cleaning and, a smaller proportion, babysitting and working as waiters (European Commission, 2014). People working in these activities would be likely subject to a tax rate lower than the average tax rate on labour if they declared their labour income. Moreover, if these workers declared their activity and be subject to taxation, including social security contributions, they would be also potentially eligible for various benefits. Therefore, we apply the average tax wedge on low-income individuals[14] to the part of the shadow economy assigned to undeclared work, which takes into account both taxes and benefits. For the part of the shadow economy attributed to undeclared transactions between business and consumers we apply the implicit tax rate on consumption[15].

Although business underreporting includes in principle the evasion of all types of consumption taxes, we can compare these estimates with the data on VAT non-compliance as measured by the VAT gap (TAXUD, 2013). Chart 4 illustrates the comparison between our estimates of the tax lost due to tax evasion on consumption and the VAT gap estimates of CASE and CPB (2014). For most Member States (right end of the Chart), the VAT gap is larger than our estimates. This may be due to the fact that the actual share of business underreporting is larger than one third (our assumption for the composition of the shadow economy between labour and consumption). As the tax burden on consumption is generally lower than the tax wedge on low incomes, our estimates of the total tax lost due to the shadow economy for these countries may be an overestimate. In a few Member States, the VAT gap is smaller than the lower bound of our estimates. Therefore, for Denmark, Estonia, Finland, Luxembourg and Portugal our estimates of the total tax lost due to the shadow economy may be an overestimate. For the rest of the Member States, the value estimated for the VAT gap lies between our range estimates. Again,

[11] The Inter-secretariat Working Group on National Accounts (ISWGNA), in which the Commission is represented next to other international institutes (OECD, IMF, UN, World Bank), warned users already in 2006 on "the limited value of [Schneider's] unofficial estimates in terms of reliability and accuracy"
[12] These calculations are not official estimates of the European Commission.
[13] This is just a rough assumption and different assumptions will naturally lead to different outcomes.
[14] The data are from the OECD/ECFIN tax benefit database (European Commission and OECD, 2014). The tax rate applied in the calculation is the tax wedge of a two-earner couple with two children whose principal earner earns 67 per cent of the average wage.
[15] Unrecorded transaction cannot be deducted by business for VAT purposes. The implicit tax rate on consumption takes into account the deductibility of input VAT.

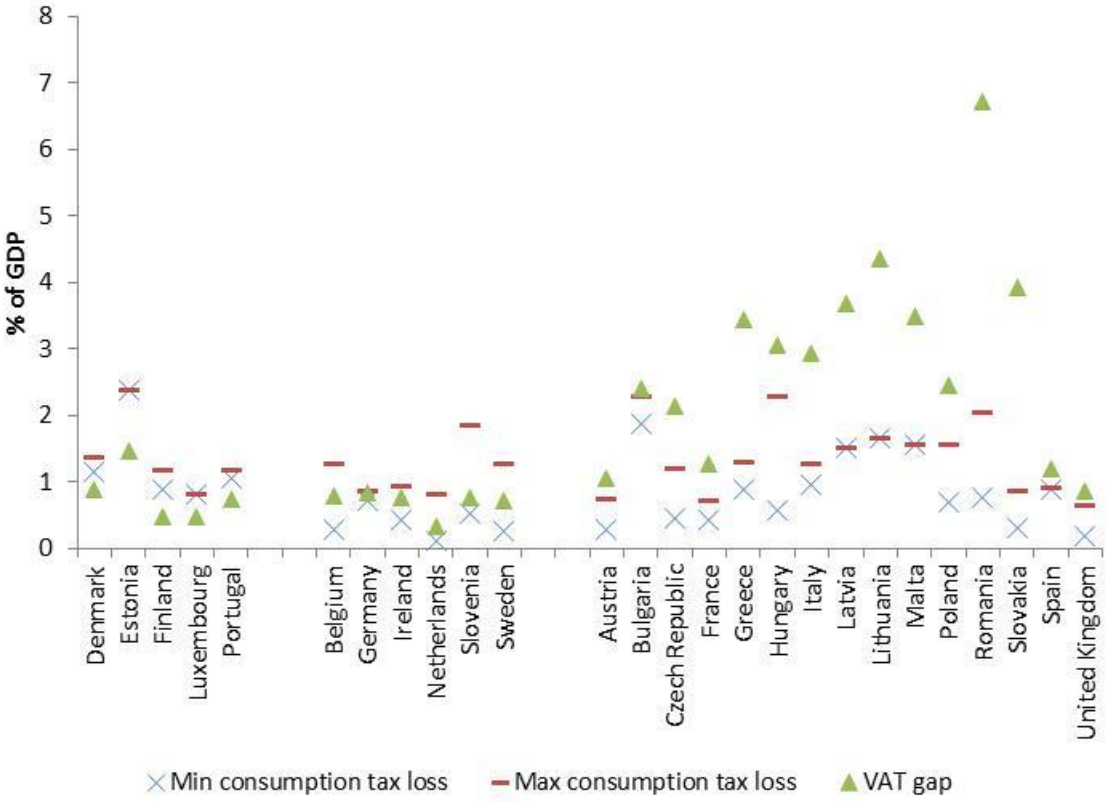
one should be aware that addressing tax evasion would not necessarily recover the entire tax loss as additional revenue.

Table 2 – Range estimates of the potential tax loss as a result of the shadow economy as percentage of GDP

	A	B	C	D	E	F
	Estimate	Estimate	Tax rate applied	Tax rate applied		Estimate
	Shadow economy labour % of GDP	Shadow economy consumption % of GDP	Tax wedge low-income households %	Implicit tax rate of consumption %	VAT Gap % of GDP	Total tax loss % of GDP
Austria	3-7	1-3	41	21	1	1-4
Belgium	3-12	1-6	49	21	1	2-7
Bulgaria**	17-21	9-11	29	22	2	7-8
Croatia*	20	10	29	20		8
Cyprus*	17	9	11	18		3
Czech Republic	4-11	2-5	34	23	2	2-5
Denmark**	8-9	4	34	31	1	4
Estonia*	18	9	37	26	1	9
Finland**	7-9	3-4	37	26	<1	3-5
France	4-7	2-4	45	20	1	2-4
Germany**	7-9	4	42	20	1	4-5
Greece**	11-16	5-8	43	16	3	6-8
Hungary	0-17	2-8	39	28	3	2-9
Ireland**	4-8	2-4	18	22	1	1-2
Italy	11-14	5-7	43	18	3	6-7
Latvia*	17	9	39	17	4	8
Lithuania*	19	9	39	17	4	9
Luxembourg*	6	3	23	29	<1	2
Malta*	17	8	19	19	3	5
Netherlands	1-7	0-3	32	25	<1	0-3
Poland	7-16	4-8	32	19	2	3-7
Portugal**	12-13	6	34	18	1	5-6
Romania**	0-13	4-10	42	21	7	4-10
Slovakia	0-4	2-5	34	17	4	1-4
Slovenia**	4-16	2-8	34	23	1	2-7
Spain**	13	6-7	38	14	1	6
Sweden	2-10	1-5	39	27	1	1-5
United Kingdom	2-7	1-3	28	19	1	1-2

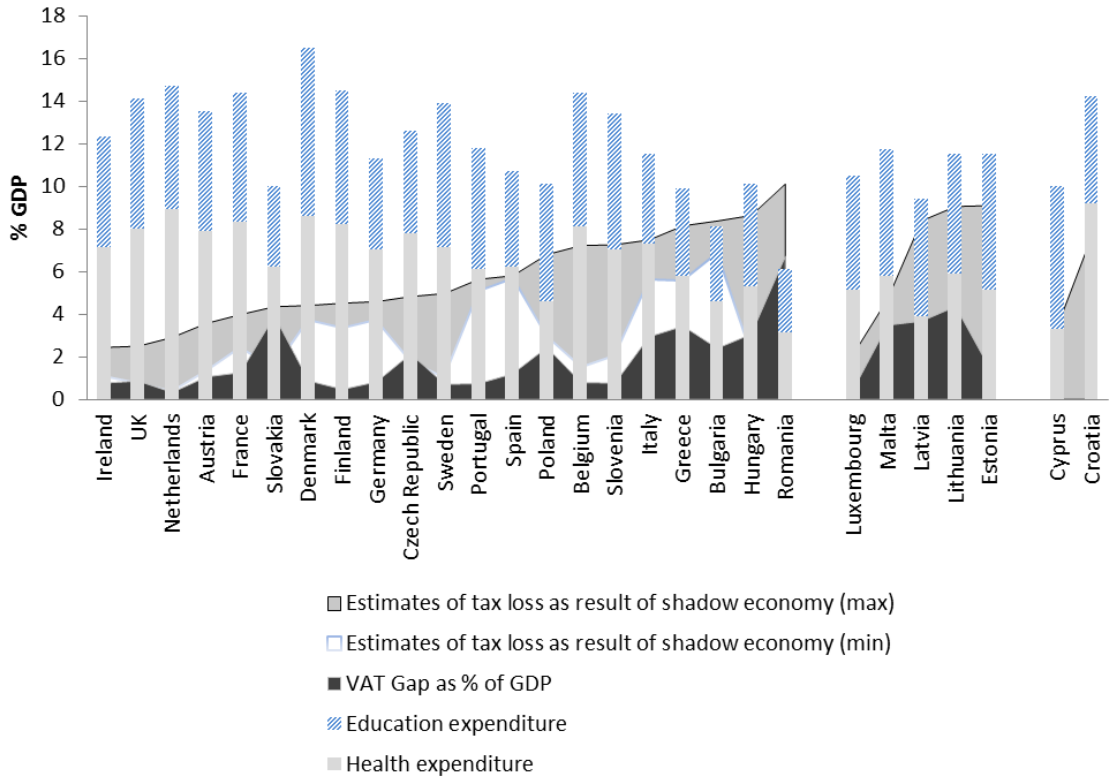
Source: Schneider (2013); Onnis and Tirelli (2014); OECD (2014) for the estimates of the shadow economy in columns A and B; OECD/EC Tax-Benefits database for the tax wedge on low incomes (column C); 'Taxation trends in European Union' (2014) for the implicit tax rate on consumption (column D); CASE and CPB (2014) for the VAT gap (column E); own calculations for the estimate of total tax loss (column F).
Notes: all data refer to 2012, with the exception of the estimates of the shadow economy from Onnis and Tirelli (2014) which refer to 2005. The total tax lost is calculated by applying the tax wedge on low incomes (column C) to the share of the shadow economy assumed to be due to undeclared work (two thirds of shadow economy estimate, column A) and by applying the implicit tax rate on consumption (column D) to the share assumed to be due to consumption (one third of shadow economy estimate, column B). The results are reported in per cent of GDP for the estimates of the shadow economy due to undeclared work and consumption and for the estimates of the tax loss. *The asterisk identifies countries for which only a single estimate is available. **Two asterisks identify countries for which two of the three estimates are available. Figures for the remaining countries are based on three shadow economy estimates.

Chart 4 - Comparison of the estimates of the tax loss due to business underreporting and VAT gap



Source: see footnote of Table 1 for the minimum and maximum estimates of the tax loss attributed to business underreporting; CASE and CPB (2014) for the VAT gap.

Chart 5 - Estimates of the tax loss as result of the shadow economy compared to health and education expenditure



Sources: Own calculation using Schneider (2013); Onnis and Tirelli (2014); OECD (2014) for the estimates of the shadow economy; CASE and CPB (2014) for the VAT gap; COFOG for education and health expenditure.
Notes: estimates of the tax loss due to the shadow economy report the maximum and minimum of our calculation reported in Table 1 and the VAT gap. Member States are sorted in ascending order according to the share of the tax lost in % of GDP. Data on the VAT gap are not available for Cyprus and Croatia.

Chart 5 shows that the range estimates of the tax loss as a result of the shadow economy are potentially large in many Member States. The estimated tax loss depends on the estimated size of the shadow economy, on the weight attributed to the share due to undeclared work and to business underreporting and on the level of the tax wedge on low incomes and on the implicit tax rate on consumption/VAT in each Member State. The VAT gap could represent a lower bound of the tax lost due to the shadow economy, as it only includes potential tax revenues from the fight against business underreporting, while undeclared work is left out.

Nonetheless, the above estimates show that the fight against tax evasion could potentially result in a collection of extra tax revenues. Although the fight against tax evasion is not easy, collecting one tenth of the estimated tax loss could yield around 0.4-0.6% of GDP, according to the estimates reported in Table 2.

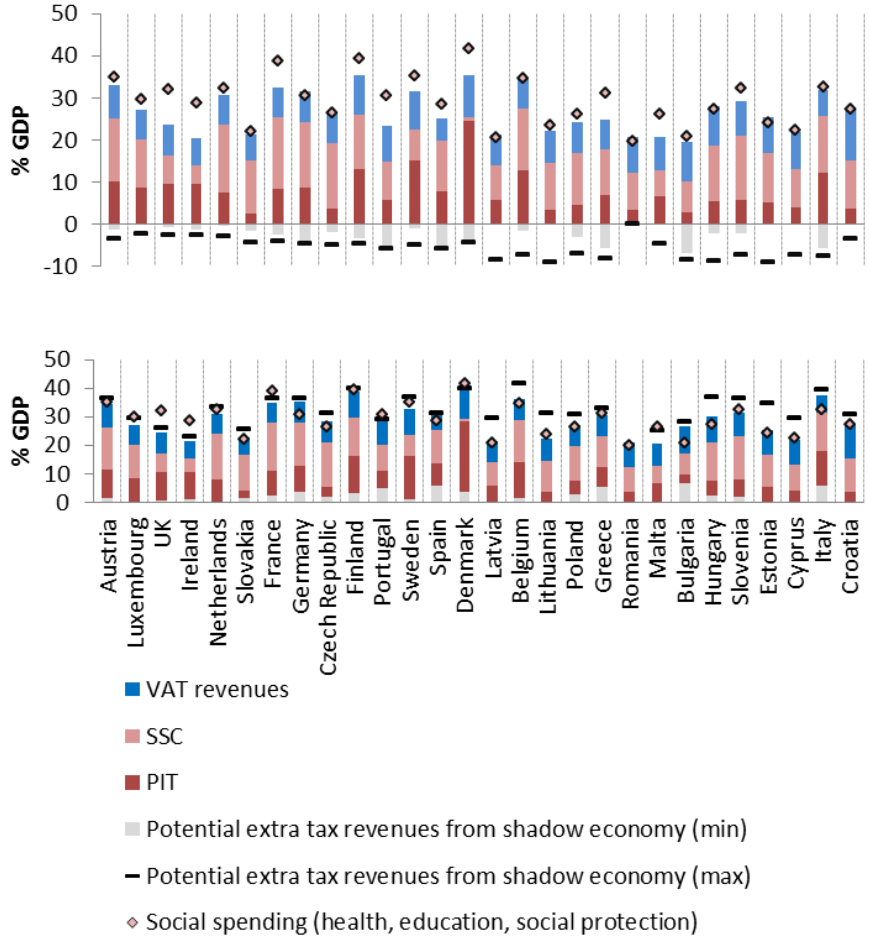
Fighting tax evasion is vital as the additional tax revenues could be used for:

- consolidation purposes (as for the increase in tax revenues);
- employment purposes (by reducing the tax wedge on labour);
- social purposes (by using these revenues to finance social expenditure);

depending on the urgency of needs of Member States (in view of the state of public finances, their tax burden on labour and their social needs). Indeed, the fight against tax evasion with the aim of collecting fiscal revenue formed part of the Economic Adjustment Programmes for

Greece, Portugal and Cyprus, which were aimed at supporting fiscal consolidation (see for example ECFIN Occasional Papers 192, 202, or 209).

Chart 6 - Actual and potential tax revenues and social expenditure



Source: COFOG for social spending [gov_a_exp]; 'Taxation trends in Europe' for VAT and direct tax revenues; for the estimates of the potential tax revenues from the shadow economy see notes to Table 2.

Chart 6 shows the contribution of potential extra tax revenues from the shadow economy, on top of the revenues from personal income taxes, social security contributions and VAT, in matching social expenditure (health, education and social protection). In a context in which social protection, expenditure for health and investments in education are being cut in several Member States (European Commission, forthcoming; 2013), the fight against the shadow economy would enhance the revenues from personal income taxes, social security contributions and VAT, which could potentially support social spending expenditure.

Conclusions

The high taxation on labour may be an obstacle to job creation. Reducing it, and preferably shifting the burden to other sources of taxation such as consumption, is an essential part of the 2014 Country Specific Recommendations. At the same time, the implications of such a tax shift for the financing of social protection and for the policy goal of decreasing poverty call for a well-considered approach. From an integrated employment and social policy point of view, an appropriate design will increase the desirability of tax shifts.

The fight against tax evasion can also contribute positively to both employment and social policy goals. The fight against tax evasion may help increase government revenues, which, if realised, can contribute to a variety of aims including strengthened public finances and employment and social policy goals. Indeed, fourteen of the 2014 Country Specific Recommendations call for fighting tax evasion.

While Eurostat is working alongside Member States on improving statistics on the informal economy, official data are currently not available. An estimate of the tax loss due to the shadow economy (tax evasion) may be obtained by applying ad-hoc tax rates to the estimates of the components of the shadow economy for each Member State. Using three different sources for the estimates of the shadow economy, it is suggested that the tax loss is potentially large in many Member States.

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