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# ECFIN *Country Focus*

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## HIGHLIGHTS IN THIS ISSUE:

- Estonia loses 0.2% to 0.3% of its working age population through emigration each year
- Emigration is driven by a large differential with respect to wages abroad, especially for less-skilled labour
- Raising the basic tax-exemption and the minimum wage are two options to mitigate disincentives to work at home
- Caution is warranted with respect to raising the minimum wage given the slowdown of exports

## Emigration of the less-skilled: the role of incentives to work in Estonia

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### Summary

Every year several thousand Estonians, most of them young and low- or medium-skilled, leave Estonia to find better paid work abroad. Given Estonia's low birth rate, the loss of 0.2-0.3% of its working-age population each year exacerbates the challenges posed by the ageing of its population. Raising the basic tax-exemption and/or increasing the minimum wage, which are both relatively low in Estonia, could help combat this trend by making local jobs more attractive. An increase in the basic tax-exemption is likely to have positive effects on labour supply by reducing the tax wedge for low-wage earners and could be designed in a fiscally-neutral way. In contrast, any rise in the minimum wage would need to be considered cautiously, particularly until the recovery of exports is consolidated. A positive side-effect of both measures is that it could help tackle the problem of undeclared work in Estonia.

### Introduction

Over the next 15 years, Estonia's working age population is projected to decline significantly (by 8%), in particularly in the 25-34 age category (Graph 1), as a result of very low birth rates after independence (1991) and strong emigration: low- and medium-skilled Estonians are leaving the country because of poor working conditions at home, including pay (Tarum, 2014).

Emigration can improve living standards for both leavers and stayers. Leavers usually earn better wages abroad and send remittances back home. In addition, as labour supply shrinks in the sending country, those who stay are likely to receive more job offers and better wages (e.g. Elsner, 2013). However, emigration can also be a symptom of a policy distortion in the home country and this Country Focus argues that this is indeed the case for Estonia. There is a disproportionate loss of low- and medium-skilled workers leaving the country, which is likely to have an impact on certain industries such as construction and services. This seems to be partly related to the impact on work incentives associated of Estonia's flat tax structure.<sup>1</sup>

The combination of past trends in fertility and current migration is accelerating the process of population ageing, not least because young workers (aged 20-34) are more likely to emigrate. Since the number of young people entering the labour force is significantly lower than the number of elderly individuals leaving it, this may affect potential GDP growth and put the future sustainability of the social security system at risk. Other risks of large-scale emigration include the deepening of regional disparities and social problems with dependants (mostly children) who stay behind (Eamets, 2013).

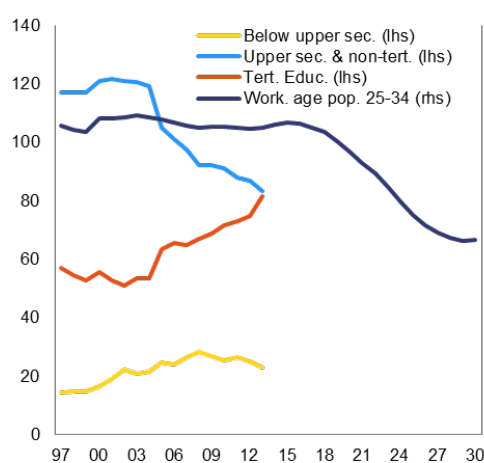
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## Patterns of outmigration

■ *The decreasing labour force in Estonia has become a public concern*

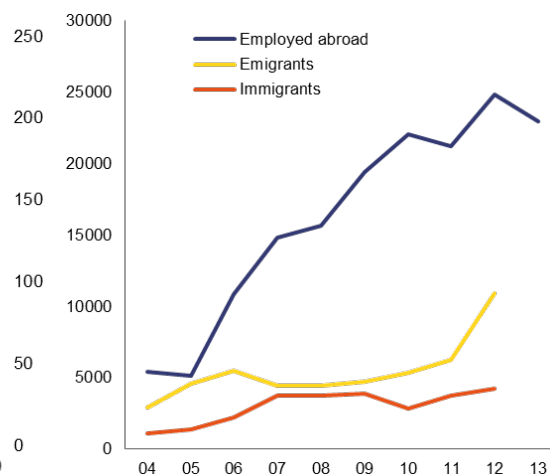
In 2013, 23,000 Estonian citizens, 3.7% of the employed working-age population, worked outside Estonia by commuting regularly to Finland while remaining residents of Estonia. In parallel, genuine emigration became sizeable as of 2004, oscillating around 5,000 in most years, with annual net outflows at around 2,000 on average (see Graph 2). This represents an annual loss of 0.2-0.3% of the working-age population, i.e. currently about a quarter of the total annual decline in working-age population. In addition, survey evidence suggests that up to 50,000 current Estonian residents are considering whether to take up employment abroad over the next few years and might eventually decide to settle abroad (Tarum, 2014).

**Graph 1: Working age population (25-34) by educational attainment level and projections for 2015-2030 (in thousands)**



Source: Statistics Estonia

**Graph 2: Estonian residents employed abroad, emigrants and immigrants**



Source: Tarum (2014) based on Statistics Estonia, Estonian Labour Force Survey, migration statistics<sup>2</sup>

■ *On average, Estonia loses 0.2% to 0.3% of its working age population through emigration each year*

■ *Finland is the most popular destination country for emigrants from Estonia due to its geographical proximity, familiar language and a strong Estonian community already in the country*

The experience of Estonia is similar to the other two Baltic states with two notable differences. First, being close to Finland, many choose to commute rather than emigrate. That may explain why net emigration in 2012 (latest figure available) was 0.27% for Estonia but as high as 0.58% and 0.71% for Latvia and Lithuania respectively. Second, compared to the other Baltic states, which have the UK as a main destination, Estonians emigrate more to Finland and Sweden. Over the 2004-07 period, Finland was the most popular destination country for Estonian emigrants, with 39% of migrants, followed by the United Kingdom (25%) and Ireland (9%) (Hazans and Philips, 2011). However, the geographical scope of outmigration has shifted increasingly towards Finland, a country that recovered swiftly from the 2008-09 international financial crisis: in 2012, Finland absorbed 59% of all migrants and 65% of all Estonians working abroad. The reason is a combination of factors such as geographical proximity, a familiar language and an already-strong Estonian community established in the country.

■ *Emigrants from Estonia are most likely to be young, male, and low- or medium-skilled*

This also reflects a changing emigration composition that has shifted towards the less-skilled, who prefer to work in Finland (Anniste *et al.*, 2012; Kangasniemi and Kauhanen, 2013). The typical emigrant from Estonia today is between 15 and 34 years of age and is low- or medium-skilled. As revealed by Estonia's regular Migration Potential survey, the share of Estonian individuals with a "firm intent" to emigrate decreases with the skill level: 13% for low-skilled, 8% for medium-skilled and 6% for high-skilled in 2013 (Tarum, 2014). Moreover, high-skilled emigrants are more likely to return as many of them emigrate for study purposes (see also Anniste *et al.*, 2012). The Estonian government's return support policies are almost exclusively targeted towards the high-skilled (Kaska, 2013). This further exacerbates the skill bias in net migration.<sup>3</sup> By sector, the willingness to migrate is highest for those in construction, accommodation and catering, healthcare and social welfare, manufacturing, and transport (Tarum, 2014).

■ *Outmigration of less-skilled workers mainly reflects relatively unattractive working conditions at home, including pay*

Over the 2000s, migration was fuelled by EU accession in 2004 and Estonia's low living standard of 67% of the EU average (PPS). High unemployment was another major reason for working abroad during the 2008-09 crisis.

A lower income level in the source country (given destination country income) has been shown to increase migration (see e.g. Westmore, 2014). In 2013, the average net monthly wage was EUR 778 in Estonia, while the expected monthly wage abroad for potential emigrants was EUR 1,900 on average. The incentive to leave is exacerbated by Estonia's poor social safety net (Tarum, 2014). Overall, relatively unattractive working conditions in Estonia appear to be a major reason for the high share of low- and medium-skilled workers among net emigrants. One of the reasons why low-skilled workers in Estonia earn relatively low (net) wages is a high tax wedge.

### A relatively high tax wedge on low-income earners

Compared to the EU-27 the tax wedge<sup>4</sup> in Estonia is relatively low for high-income earners, but high for low-income earners, as in the other Baltic States (Table 1). This trend persists if compared with the most popular destination countries for Estonia's emigrants.

■ *The tax wedge in Estonia is relatively low for high-income earners, but high for low-income earners*

**Table 1. Single person tax wedge at different wage levels (AW = average wage, 2013)**

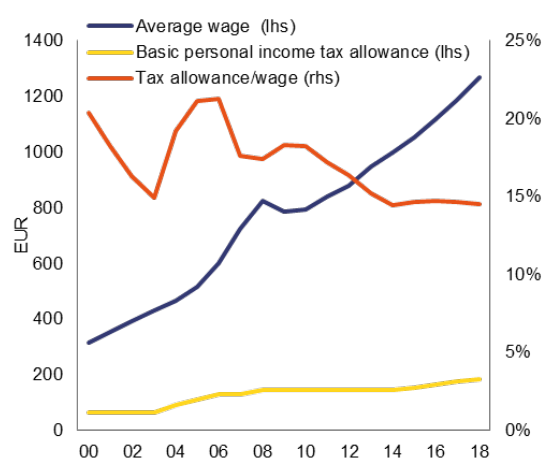
	50% of AW	67% of AW	100% of AW	167% of AW
<b>Estonia</b>	<b>37.6</b>	<b>38.7</b>	<b>39.9</b>	<b>40.9</b>
Latvia	42.3	43.1	43.9	44.5
Lithuania	37.8	39.5	41.1	42.0
Ireland	10.4	21.1	26.6	38.5
Finland	33.9	37.6	43.1	48.9
Sweden	39.2	40.8	42.9	50.6
United Kingdom	22.0	26.9	31.5	37.7
EU27	34.0	38.2	42.0	46.6

Source: EC Tax and Benefits database

The high labour tax wedge for low-wage earners in Estonia results from a low basic tax exemption<sup>5</sup> (henceforth called the "basic allowance") in combination with a flat tax rate (a single marginal rate) on income. Since 2009, the personal and corporate income tax (PIT) rate has been 21%. Social security contribution (SSC) rates are also flat (2% to be paid by employees and 34% by employers, of which 3 pps constitute the unemployment insurance contribution rate). Estonia applies a monthly basic allowance of EUR 144. This is equivalent to 14% of the average wage for single income earners in 2014, and hence relatively low compared to other EU countries.<sup>6</sup>

■ *One reason is the relatively low basic tax-exemption in the tax system in comparison with the rest of the EU*

**Graph 3: Evolution of the basic allowance over the years 2000-18**



Source: European Commission services (2014)

Notably, it amounts to barely 41% of the minimum wage (2014), compared to an average 75% in EU-OECD member countries where the minimum wage is generally even higher. As a consequence, the current basic allowance falls short of the minimum income required for a single person's subsistence, which is estimated at EUR 220 by Statistics Estonia (2014). One of the reasons why the basic allowance in Estonia is so low is that it has lagged behind wages in recent years mechanically increasing the tax burden on labour, especially for low-income earners. In 2006 the basic allowance was above 20% the average wage but, since then, the wages have increased faster (Graph 3).

The IMF (2014) concludes that a high labour tax wedge on low income earners is a major driver of structural unemployment.<sup>7</sup> It estimates that differences in the tax wedge explain about 30% of the variation in structural unemployment across countries, and that a reduction in the tax wedge by 10 pps would reduce structural unemployment by 2-4 pps on average. In 2013, the unemployment rate for the low-skilled stood at 15% of the labour force. Since the peak of the crisis, the employment rate has risen swiftly (7 pps) but almost a third of the improvement has been achieved through a reduction in the working-age population, *inter alia*, by a strong decline in birth rates after independence (about 1.3 pps) and emigration (around 0.7 pp), rather than through employment growth itself (see Statistics Estonia, 2014).

- *The labour tax wedge on low income earners remains relatively high and may be a driver of unemployment, inactivity, the informal sector employment, and emigration*

The low-skilled are more likely to be unemployed or inactive. They are also expected to work more in temporary or part-time contracts rather than in regular contracts. With high tax wedges, such contracts are probably more often concluded in the informal economy. More generally, the literature suggests that a high tax wedge encourages informal-sector employment, especially for low-income earners (see e.g. Koettl and Weber, 2012, on Estonia),<sup>8</sup> with the associated costs of loss of government revenue and social protection for workers.

### Policy options: improving incentives to work in order to contain emigration by the low- and medium-skilled

The remainder of this note considers the potential role of the tax wedge and the minimum wage in making working conditions more attractive at home, thus mitigating large-scale emigration. The two instruments considered are the basic allowance and the minimum wage. Compared to the EU, both are relatively low in Estonia.

#### Reducing the tax burden on low-income earners so as to increase net wages

Reducing the tax wedge on low-income earners could strengthen both labour supply and labour demand. To the extent that part of the reduction in the tax wedge translated into higher net wages, individuals who were previously not willing to work at the offered wages and/or were tempted to leave the country might then decide to stay in Estonia and work. Conversely, if a lower tax wedge were to translate into a lower labour cost, employers would be able to hire labour at a cheaper price and their demand for labour might increase.

- *Reducing the tax wedge on "low productivity" groups of potential workers could contribute to boosting labour supply and containing emigration*

But tax wedge reductions are expensive for public budgets and tax wedges on above-average income earners are already relatively low (and their employment rates high) in Estonia. Hence, future tax relief in Estonia ought to be targeted towards those with weak labour-market attachment in particular those working at lower wages.

If tax reductions are focussed on low-income earners, the tax system gains in progressivity and is more effective in supporting employment. A major reason for this is that both labour demand and labour supply are more elastic, and hence more sensitive to changes in the tax wedge, at the low end of the income distribution (Lehmann *et al.*, 2014). Flat tax rate countries have few other ways of making their tax system more progressive (without increasing complexity) apart from increasing the basic allowance. For this reason, one would expect flat tax systems to be associated with higher, not lower, basic allowances than progressive tax rate systems. However, this is not what is observed in general in the flat-tax EU Member States.<sup>9</sup>

- *A flat tax rate reduction disproportionately benefits high-income earners*

Theoretically, in order to reduce the tax wedge on low-income earners, a more drastic increase in the basic allowance would be more cost-effective than reducing social security contributions or PIT rates across the board. Indeed, in a flat tax system, an increase in the basic allowance is equivalent to a subsidy of equal absolute size across all income levels. In contrast, a reduction in the social security contribution or PIT rate is a subsidy that is proportional to the level of income, i.e. increasing with income in absolute terms. In other words, an increase in basic allowance would increase progressivity and it would benefit low-income households relatively more, while across-the-board PIT rate cuts would benefit high-income earners disproportionately.

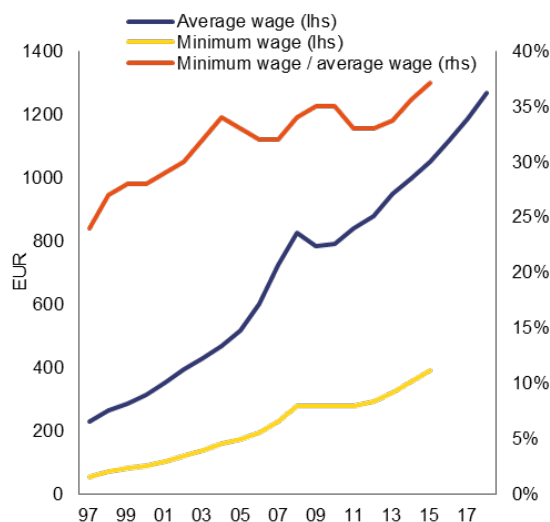
*and is less cost-effective in promoting employment*

Overall, the Estonian tax system is relatively regressive because of a combination of a flat tax rate on income with the low rate limiting redistribution through social transfers, very low taxation on capital and real estate, no inheritance tax, high consumption taxes, but no taxation of luxury goods. In 2012, the Gini coefficient for Estonia was 0.325, compared with averages of 0.297 for the old EU Member States and 0.290 for the group of new Eastern Member States. In addition, Estonia still has a relatively high proportion of the population at risk of poverty or exclusion and ranks as the 10th worst performer in in-work poverty in the EU. Recent increases in consumption taxes are expected to weigh particularly on households at the bottom of the income distribution, who spend a larger share of their relatively low income on consumption.

As mentioned, recent tax reforms focused on flat reductions in PIT and social contributions. In 2013, the unemployment benefit contribution rate was cut from 4.2 to 3% (shared between employer and employee contributions), while reductions in the unemployment benefit contribution rate from 3% to 2.4% and in the PIT rate from 21% to 20% have been implemented as from 2015. A gradual increase in the basic allowance by around 7% annually over 2015-18 is also planned. However, this increase would merely compensate for the expected average wage increase over the same period (Graph 3). All in all, the changes currently foreseen by Estonia are likely to reduce the tax wedge by barely 1 pp and are not targeted at low-income earners, the group for which the current tax structure is most distortive, in terms of both demand for and supply of labour.

Staeher (2008) estimates the measures envisaged in the previous paragraph (reduction in the PIT rate by 1 pp and increase in the basic allowance by 7%) would increase total employment of working-age individuals (mostly low- and middle-income earners) by around 0.35%. At the same time, the Stability Programme for Estonia estimates that increasing the basic allowance by 7% will cost EUR 17 m (0.08% of GDP) in terms of lost revenue while reducing the income tax rate by 1 pp will cost EUR 80 m (0.4% of GDP), that is, five times more for a similar impact on employment.

**Graph 4: Evolution of the statutory minimum wage in Estonia (2008-16)**



Source: European Commission services (2014)

Providing tax relief to low-income earners by raising the basic allowance is a common characteristic of fiscal systems in OECD countries.<sup>10</sup> The overall impact on output depends on how the tax wedge reduction is financed. Indeed, the transition need not entail substantial costs if the reduction is compensated by raising environmental taxes —there is room to increase car taxation, see Lamine and Löhmuste (2014)— or growth-friendly taxes— such as road use fees, real estate taxation or inheritance taxes.<sup>11</sup> Moreover, in the long term, the associated increase in the employment rate and resurfacing of underground employment are expected to have additional positive effects on output growth and fiscal sustainability (World Bank, 2013).

**Could minimum wage policies help contain large-scale emigration?**

There is no consensus in the literature on the impact of minimum wages on employment. Some authors argue that, in line with the predictions based on a competitive labour market model, an increase in the minimum wage reduces employment by lowering demand (e.g. Neumark and Wascher, 2006). Others have refuted these arguments and have relied on other models, such as the static monopsony model (Card and Krueger, 1994) and the dynamic monopsony model (Burdett and Mortensen, 1998), which predict an increase in

■ *Raising minimum wages may increase labour supply and*

*employment in periods of economic expansion*

employment.<sup>12</sup>

The impact may differ across groups. For groups facing a highly elastic labour supply (e.g. second wage earners), higher minimum wages may improve incentives to work. However, there is a risk that a higher minimum wage would stifle demand for the least productive workers, such as youngsters without work experience. This is the group which has seen the strongest deterioration in employment rates during the crisis. Higher minimum wages compress wages at the bottom of the distribution and make these low productivity groups less attractive for employers as compared to higher productivity groups.

High minimum wages may also shift industries away from low-productivity sectors, and exert upward pressure on higher level wages. In the past decades, Estonia has seen a marked decline of low-productivity sectors, like agriculture, heavy industry and textiles. Increases in the minimum wage could aggravate this trend. While this is an inescapable (and efficient) trend in the long-run, the literature generally finds benefits in smooth and gradual structural changes for an optimal job reallocation (Jurajda and Terrell, 2002).

The impact of the minimum wage on the informal economy is not clear ex ante. Minimum wages raise labour costs in the formal sector and induce an employment shift towards the informal sector (e.g. Harrison and Leamer, 1997). However, in the Estonian context, where employers already pay employees a share of their wage informally as "envelope wages" to avoid taxes, a minimum wage may increase part of the wage formally declared, and hence induce formalisation and increase government revenue (World Bank, 2013).

The negative effects of minimum wages are more likely to be felt if the coverage of the minimum wage is high, which means wages are compressed at the bottom of the distribution. The latest available figures from the Structure of Earnings Survey in 2010 suggest that coverage in Estonia is low at around 4%. However, there are some concerns as to the representativeness of these figures for the Estonian economy.<sup>13</sup>

Empirical evidence supports the view that positive effects are likely to dominate if minimum wages are low, i.e. below 40% of the average wage or below 50% of the median wage, with lower levels for less productive workers such as the young and the long-term unemployed (Schmitt, 2013). This is the case of Estonia: the ratio of the minimum to the average wage has remained fairly constant since Estonia's EU accession (Graph 4) at about 35% of the average wage and 45% of the median wage in 2013, i.e. relatively low in comparison with other EU Member States. This is not expected to change substantially with foreseen increases in the minimum wage already agreed between social partners and the Estonian authorities for 2015. In addition, Estonia is one of the few countries in the region where a full-time-worker at the minimum wage remains below the poverty threshold of 60% of the median income.

Therefore, it is unlikely that further minimum wage increases in Estonia will have important dis-employment effects, while they could help retain the less-skilled workers that are being lost to the Estonian labour force. As with the proposed increase in the basic allowance, some positive effects could also be expected through increased purchasing power at the bottom of the income distribution and the resulting positive spill-over effects.

Still, the risk of stifling demand for labour suggests the need for a cautious approach, in particular for "low productivity" groups with weak labour market attachment. A reasonable path for the authorities would be to exercise caution with respect to any further minimum wage increases until it is clear that exports are not being undermined by any deterioration in cost/price competitiveness. This is particularly important given the still relatively weak economic recovery for a catching-up economy (1.94% of GDP and 2.30% of GDP per capita in 2014) while external demand from Finland and Russia remains depressed.

## Conclusions

Estonia's labour force has become a cause for public concern for several reasons: an ageing population, low birth rates, and a sizeable net emigration, mainly of low- and medium-skilled labour. Emigration is encouraged mainly by unattractive working conditions at home, like

■ *However, it may also make low productivity workers less attractive, shift industries away from low-productivity sectors, and exert upward pressure on higher level wages*

■ *The minimum wage in Estonia remains relatively low, leaving room for policy action*

■ *Caution is warranted until it is clear whether currently foreseen increases will hamper labour demand amid a weak economic recovery*

relatively low wages and poor social safety nets. With respect to pay, two policy tools are readily available: the tax wedge and the minimum wage.

Despite recent tax measures, Estonia's tax wedge remains relatively high for low-wage-earners, in particular when compared with those in the most popular destination countries for Estonia's migrants. This policy distortion entails potential welfare losses, for both leavers and stayers, suggesting scope for policy action in this area.

In a flat tax system, the simplest and most natural candidate for correcting this inefficiency is the basic tax exemption allowance. This is particularly low in Estonia because it lags behind general wage developments. If the allowance were to be regularly updated, the increase could be designed to have a fiscally-neutral effect, e.g. rising car taxation, road use fees, real estate taxation or inheritance taxes as suggested in the Country Report 2015. In the short run, an increase in the basic allowance might have a negative budgetary impact, but its impact on output growth and long-term fiscal sustainability is likely to be positive. This positive effect would stem from a reduced emigration of the less-skilled, increased employment, and an employment shift towards the formal sector. With a view to boosting employment, it would be a cost-effective alternative to the currently foreseen across-the-board reductions in the personal income tax and social security contribution rates; these measures target tax relief to income groups that already enjoy a tax wedge below the EU average. A higher basic allowance could also increase purchasing power at the low end of the income distribution and as such provide a stimulus to demand in the Estonian economy.

As a complementary measure, if the recovery consolidates, an increase in the minimum wage could strengthen labour supply, including through reduced emigration of the less-skilled and also an increase purchasing power at the low end of the income distribution.

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<sup>1</sup> Migration is a complex phenomenon with many drivers (life-time income expectations), with long-run macro implications depending on adjustment patterns in both sending and receiving countries. Therefore, the policies suggested in the present Country Focus need to be considered with a view of the overall functioning of the labour market, rather than to directly affect out-migration, though this could be a side-effect.

<sup>2</sup> Statistics Estonia (2014) contests the figures for 2012 and claims that net emigration was lower than shown in Graph 1, at around 3700 people.

<sup>3</sup> While a shift in the workforce composition from less-skilled to high-skilled is surely desirable, achieving this through schooling rather than through emigration of less-skilled workers would be more commendable.

<sup>4</sup> The tax wedge is defined as the difference between a worker's net salary and his labour cost to the employer, and is expressed as a share of the total labour cost.

<sup>5</sup> The basic allowance is a certain amount of income which is exempt from PIT. Most countries' tax systems have such a basic allowance, although its level may vary. The application of a basic allowance can be motivated by the desire to exempt from taxes an amount of income needed for basic necessities like food and shelter or the expenses of commuting for work; or by the desire to make effective tax rates more consistent with an individual's capacity to pay.



<sup>6</sup> In 2012, the EU-28 average was 22% of the average wage for a single person, with a wide variation across countries: from 1% in Bulgaria to 51% in Portugal. That said, it is misleading to compare basic allowance across different tax systems, e.g. flat tax system and progressive tax system.

<sup>7</sup> Orlandi (2012) highlights the possible role of low active labour market policies expenditure in addition to the relatively high tax wedge on low-income earners in explaining the high level of the structural NAWRU in Estonia. We deliberately leave aside the issue of ALMPs here, as it is beyond the scope of this paper.

<sup>8</sup> Different labour market surveys indicate that the share of undeclared work and envelope wages in Estonia is broadly close to EU average level and somewhat lower than compared with other new Member States (e.g. Hazans, 2011, Leibfritz, 2011, Vermeylen, 2008). According to Williams *et al.* (2008), the participation rate in undeclared work is particularly high in Estonia (11%) compared to the EU average (5%). Estonia belongs to a group of countries where envelope wages are more often for overtime or extra work and amount to an average of around ¼ of employee's wages.

<sup>9</sup> The only countries which applied a relatively higher basic allowance were Czech Republic and Slovakia (before 2013, when they applied a flat tax scheme for a few years). In Latvia, Romania and Hungary, the basic tax exemption is even lower than in Estonia; resulting in higher tax wedges on low-income earners. Lithuania on the other hand increased its basic allowance considerably in 2013: it was increased from 136 € to 165 € per month (from 20% to 25% of the average wage), with effect from 1st January 2014.

<sup>10</sup> For instance Italy, Portugal, Slovenia, the Czech Republic, Slovakia and Austria increased their basic allowance considerably between 2000 and 2010 (OECD, 2012). Introducing a basic allowance for social security contributions is not very common but exists in several OECD countries as well. Reducing social security contributions for low wages through a social security contribution discount to employers is relatively frequent.

<sup>11</sup> See the European Commission's Country Report Estonia 2015 COM(2015) 85 final.

<sup>12</sup> This *a priori* presupposes a period of economic expansion, i.e. a period when monopsonists can afford smaller margins and maximize their profits by increasing turnover. See also Manning (2013) or IMF (2014b) for an up-to-date review of where the debate currently stands.

<sup>13</sup> Data on minimum wage coverage from the Structure of Earnings Survey are not very reliable as they only account for full-time employees in firms with more than 10 workers, while almost 94% of Estonian firms had less than 9 workers in 2013. At EU level, the latest data from Eurostat refer to 2007 and show considerable differences in effective coverage across countries with statutory minimum wages (from 0.7% in Spain to 12.4% in Bulgaria and 9% in France) and points to an EU average of approximately 5.7% at the time.