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Labour Tax Shift in Slovenia: Effects on Growth, Equality & Labour Supply

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Labour Tax Shift in Slovenia: Effects on Growth, Equality and Labour Supply

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Abstract

The high tax burden on labour in Slovenia is likely to have an adverse effect on labour market outcomes and, in turn, potential GDP. This effect is particularly relevant in an ageing country whose active population is expected to shrink. International institutions have been recommending to Slovenia to rebalance its tax mix away from labour to more growth-friendly tax bases. In October 2019, the parliament adopted changes to the tax code to reduce labour taxes by lowering tax rates, raising tax brackets and increasing the general allowance.

Against this background, this economic brief considers the potential effects of the reform, as proposed by the Ministry of Finance in summer 2019, on growth, income equality and labour supply, and weighs it against alternative scenarios. The aim is to highlight potential trade-offs and synergies. We use the European Commission macroeconomic QUEST model to show that the tax shift from labour to corporate income would be more distortive to growth than a shift to the recurrent tax on immovable property, which is currently relatively low in Slovenia. Based on the EUROMOD tax-benefit microsimulation model, we find that a lower tax burden on labour could reduce income inequality and increase labour supply. The effects depend on the design of the reform.

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Introduction

On 18 June 2019, Slovenia's Ministry of Finance released a blueprint with measures to reduce the tax burden on labour (Slovenia's Ministry of Finance, 2019). The main aim of the proposal was to relieve the labour costs by cutting the personal income tax (PIT). A slightly amended version of the proposal has been adopted by the parliament in October 2019[1]. It is applicable since January 2020. Earlier in 2019, the parliament already increased the threshold for exemption of the annual holiday allowance from PIT and social security contributions (SSC) up to 100% of the average wage.

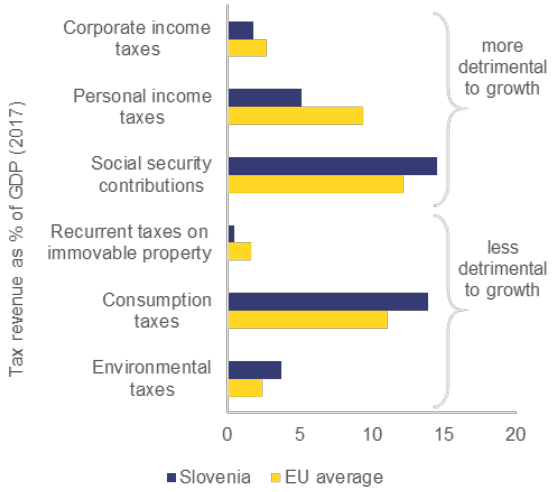
The labour tax burden for average wage earners in Slovenia is higher than the EU average, particularly for low-income and secondary earners[2]. Reducing the overall tax burden on labour, especially for the more vulnerable groups, and increasing the incentives to work could improve potential growth (European Commission, 2018b). This would be particularly important in an ageing country, whose working population is expected to shrink. Higher labour market participation of older and low-skilled workers could also decrease income inequality, while having a positive budgetary impact through lower social spending and additional revenues from taxation and SSC.

To (partly) compensate for the revenue losses, the Ministry of Finance proposed to raise the taxes on capital gains, rental and corporate income (CIT). The "tax and growth ranking" conducted by the OECD suggests, however, that CIT is the most growth-unfriendly tax (Johansson et al., 2008). This is supported by a large strand of theoretical and empirical literature, which shows that an increase in the (effective) CIT rate could have a negative effect on investment, foreign direct investment and entrepreneurship (see, i.e., Lee and Gordon, 2005; Djankov et al., 2008; Arnold et al., 2011). In Slovenia, the statutory CIT rate (19%) is among the lowest in the EU but lies above the rates of its neighbours Hungary (9%) and Croatia (18%). CIT is paid on profits, while several exemptions exist (i.e. 0% rate for investment and pension funds, deductions for specific types of investments or losses from previous years).

An alternative way to compensate for the revenue losses would be to increase taxes that are deemed less detrimental to economic growth, such as those on property (notably recurrent taxes), consumption and pollution (European Commission, 2018a). The revenue from the recurrent tax on immovable property in Slovenia is among the lowest in the EU (see Graph 1). However, the introduction of a new real estate tax has been withdrawn by Slovenia's government[3].

In its 2019 Country Report, the Commission presented simulations showing that lowering the tax burden on labour and increasing the recurrent tax on immovable property could reduce inequality and have a positive effect on labour supply (European Commission, 2019a). Other international institutions (OECD and IMF) recommended to Slovenia to rebalance the tax mix away from labour taxes, in particular employee's SSC, to consumption or recurrent tax on immovable property, including by broadening the tax base (OECD, 2018a; OECD, 2018b; IMF, 2019a; IMF, 2019b).

Graph 1: **Tax structure in Slovenia**



Source: European Commission, 2019b.

Against this background, we use the dynamic general equilibrium model QUEST[4] to simulate a tax shift from labour to CIT. The simulations are based on the initial proposal by the Slovenia's Ministry of Finance. The model allows us to investigate the short-, medium- and long-term effects on growth, employment and labour productivity. This is compared with the impact of an alternative tax shift from labour to immovable property of the same size.

We also simulate the potential effect of the reform on income distribution and labour supply in Slovenia using the static EUROMOD[5] microsimulation model. This is compared with three alternative scenarios of reducing the tax burden on labour: (1) an introduction of a refundable in-work tax credit for low-and middle-income earners; (2) an across-the-board cut in employee's SSC rate on pensions and disability; and (3) a transformation of the

general tax allowance into a refundable in-work tax credit for low- and middle-income earners. In all three scenarios, the revenue reduction is fully compensated by an increase in the recurrent property tax.

Growth impact of tax reforms

The proposal of the Ministry of Finance was designed to increase the after-tax wage by: (1) reducing the tax rate of the second tax bracket by 1 pp and the tax rate of the third tax bracket by 2 pps; (2) increasing the thresholds for all the tax brackets[6]; and (3) raising the general allowance[7] by up to EUR 200. Based on EUROMOD, these changes would result in a net revenue loss of EUR 119.6m (above 0.2% of GDP), close to the estimate of EUR 128m by the Ministry of Finance[8].

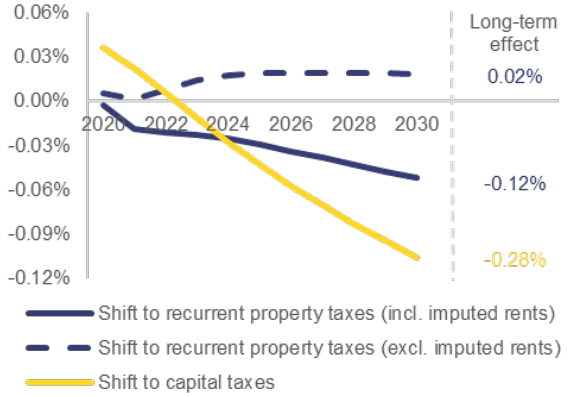
The revenue losses were partly compensated by: (1) an increase in the capital gains (dividends, interest and profits from capital) tax, depending on the holding period; (2) an increase in the tax rate on rental income from 25% to 27.5%, followed by an increase in the standardised costs deductible from the tax base from 10% to 15%; (3) an increase in the CIT rate from 19% to 20%; and (4) an introduction of an effective minimum CIT rate of 7% through reduced exemptions on investments and losses from previous years. The Ministry of Finance estimated those measures to yield additional revenues worth EUR 87m, mainly driven by the increase in CIT revenues. This is significantly below the estimated costs of the above-mentioned PIT cuts.

Using the QUEST macroeconomic model, we simulate a permanent shift away from PIT of a magnitude of 0.25% of GDP, close to the estimates by the Ministry of Finance. We approximate the measures to raise revenues by simulating an increase in CIT and compare it against an increase in recurrent property tax. In order to focus our analysis on the structural effects of the reform, the simulated tax shift is ex-ante revenue-neutral (i.e. the PIT reduction is fully compensated by an increase in either CIT or recurrent property taxes), netting out any ex-ante growth effect of potential fiscal expansions/contractions.

The QUEST simulation confirms that lower PIT would raise employment, net wages and consumption. In the case of a shift to CIT, those positive effects would lead to a higher real GDP[9] in the short term (average of 0.02%; see Graph 2). The effect on employment would be slightly positive (0.04%) and stable. However, higher CIT would significantly reduce investment and, therefore, labour productivity due to a slower rate of capital accumulation (by 1.3% and 0.1% after five years, respectively). This, in turn, would hamper medium- and long-term economic growth (see also European Economic and Social Committee, 2019).

Compared to the shift to CIT, the alternative shift to recurrent tax on immovable property would have an immediate small negative effect on real GDP, mainly due to lower housing investment and construction (solid blue line in Graph 2). Higher taxation on immovable property would, therefore, reduce the housing stock and the related housing services, which are included in real GDP as imputed rents. Overall investment would decrease only slightly compared to the shift to CIT (0.1% after five years). The impact on employment would be smaller than in the case of a shift to CIT in the short term and broadly the same in the medium and long term (0.04% in the long term). Note, however, that the model does not disaggregate income groups across households. The simulations, thus, do not fully account for the dynamic positive labour supply effects on growth stemming from the distributional impact of the tax shift. The positive effects could be even higher than suggested by the results from static simulations presented in the following section.

Graph 2: **Effect on real GDP of a revenue-neutral shift away from PIT of a magnitude of 0.25% of GDP**



Source: European Commission, based on the QUEST model.

Already after five years, the negative impact on economic growth of a shift to recurrent property taxes would be substantially weaker than the one of a shift to CIT. In equilibrium, the shift to CIT would reduce real GDP growth by around 0.3%, more than twice as much as the shift to recurrent property tax. The immediate negative impact on real GDP from a shift to recurrent property tax would, however, disappear if housing services of owner-occupied

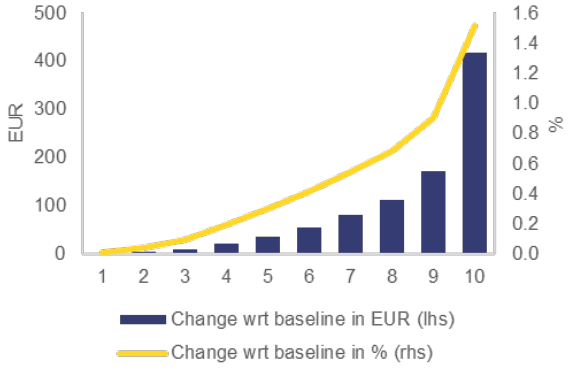
housing (imputed rents) were excluded from the real GDP calculation (dashed line in Graph 2). Overall, the simulation results confirm the economic theory and previous findings of a shift to CIT having a more detrimental impact.

We also find that the tax shift to recurrent property tax would reduce house prices by around 1.1% in the long term, assuming an elastic housing supply. Our results support the findings by Blöchliger et al. (2015) who estimated that a 1pp increase in the growth rate of property taxes would decrease house price growth by up to 2.2pps in Slovenia. This is worth bearing in mind, given that Slovenia faced a housing bubble burst during the recent financial crisis and that house prices have risen significantly during the recent growth years. In addition, the tax base of the recurrent property tax is less mobile and elastic than the one of income taxes. Thus, a shift to recurrent property taxation could help strengthening the resilience to the effects of globalisation (O'Reilly, 2018).

Distributional and labour supply effects of tax reforms

This section evaluates the static impact of the chosen reforms on inequality and incentives to work. Graph 3 shows the changes in mean annual equivalised disposable income[10] resulting from the cuts in PIT, by income decile of the population, according to our EUROMOD microsimulations. The cuts in PIT would have a regressive distributional impact, benefitting the highest-income deciles the most.

Graph 3: **Change in mean annual equivalised disposable income resulting from the proposed cuts in PIT, by decile**

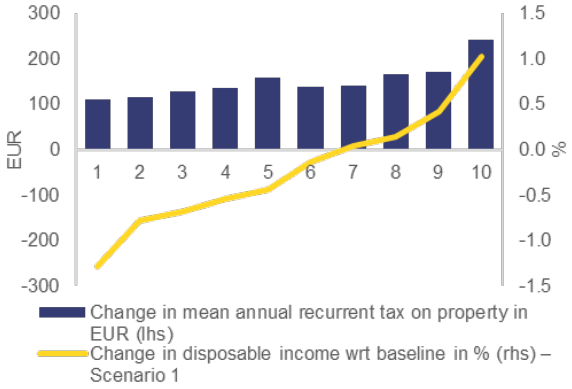


Source: European Commission, Joint Research Centre, based on the EUROMOD model.

The compensatory CIT increase cannot be simulated in EUROMOD. Therefore, its distributional impact cannot be assessed here. With regard to the recurrent property tax, the EUROMOD simulations indicate that the average increase of the tax burden by 0.2% of GDP would be quite uniform across all income deciles in absolute terms[11], with the lowest-income deciles suffering most in percentage of their income (see Graph 4). This could be due to similar homeownership rates across the income distribution or outdated property values in Slovenia. Overall, this shift from labour to recurrent property taxes (referred to as Scenario 1 hereafter) would make the tax system less progressive, as reflected by the lower Kakwani index, and the income distribution less equal, as reflected by the higher Gini coefficient (see Table 1).

Given the negative redistributive effects for lower income deciles, we propose three additional scenarios with alternative ways to reduce the tax burden on labour. The objective is to see whether the tax burden on labour could be reduced in a more equitable way than in Scenario 1. We model all the scenarios as a revenue-neutral shift to recurrent tax on immovable property while keeping the overall magnitude of the reform the same as in Scenario 1.

Graph 4: **Change in recurrent tax on immovable property and the overall effect on mean annual equivalised disposable income from Scenario 1, by decile**

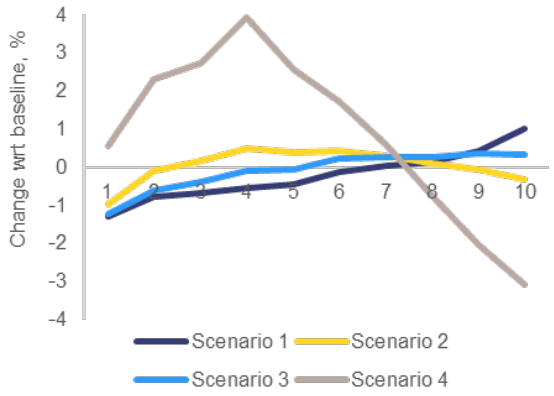


Source: European Commission, Joint Research Centre, based on the EUROMOD model.

In particular, we model the following alternative ways to reduce the tax burden on labour: (1) a refundable in-work tax credit[12] up to a maximum amount of EUR 230 per year for low- and middle-income earners in active employment[13] (Scenario 2); (2) a reduction of the employee's SSC rate on pensions and disability from 15.5% (among the highest in the EU) to 14.3% (Scenario 3)[14]; (3) abolishing the existing general tax allowance and using the available funds (including the extra

revenues from the higher recurrent property tax) for a refundable in-work tax credit[15] up to a maximum amount of EUR 960 per year for low- and middle-income earners in active employment (Scenario 4). The in-work tax credit in Scenarios 2 and 4 is refundable which means that if the taxes to be paid are lower than the amount of the in-work tax credit, the difference is transferred to the taxpayer.

Graph 5: **Change in mean annual equivalised disposable income across scenarios, by decile**



Source: European Commission, Joint Research Centre, based on the EUROMOD model.

Graph 5 shows the change in mean annual equivalised disposable income by decile of the population. The effects vary substantially across the scenarios. Scenario 1 has the most regressive impact, reducing the disposable income at the lowest end and increasing it at the upper end of the income distribution. Scenario 3 has a similar but significantly less pronounced impact. Scenario 2 is somewhat more progressive, boosting income for the middle deciles, at the expense of both the lower and upper ends. Only in Scenario 4, the bottom deciles are better off after the reform but, even then, they benefit less than the middle-income deciles.

Table 1: **Change in means-tested benefits, inequality and progressivity across scenarios**

Change wrt baseline	Scenario			
	1	2	3	4
Means-tested benefits (EUR m)	-2.0	-24.7	-8.5	-103.3
Gini coefficient of equivalised disposable income	0.004	0.000	0.002	-0.009
Kakwani index	-0.011	0.004	-0.006	0.048

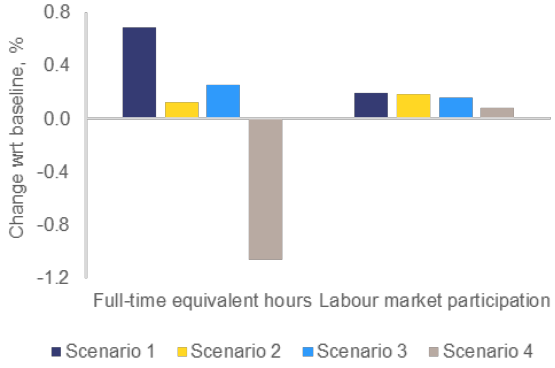
Source: European Commission, Joint Research Centre, based on the EUROMOD model.

Table 1 summarises these results. Despite the decrease in means-tested benefits implied by the reform, Scenarios 2 and 4 reduce the inequality (i.e. the Gini coefficient is lower than in the baseline; for Scenario 2 the impact is actually zero) and increase the progressivity of the tax system (the Kakwani index is higher than in the baseline). Overall, Scenario 1 is found to be the most regressive and inequality-increasing, whereas Scenario 4 leads to the largest increase in tax progressivity and equality at an aggregate level.

All reforms considered have a negative or at best a small positive impact on the disposable income of the lowest-income deciles. This can be explained by the following two factors. First, employed and, therefore, eligible individuals are underrepresented in the bottom three deciles. In particular, pensioners who do not benefit from a lower tax burden on labour are highly concentrated in the first decile (15% of all pensioners). Second, the changes in PIT and SSC have implications for the eligibility for social benefits. Some individuals and households at the lowest-income deciles would see their disposable income exceed the eligibility thresholds for means-tested benefits, which would reduce their after-reform net income. This is particularly true for Scenarios 2 and 4 as, by construction, these reforms target low- and middle-income earners.

To compensate this impact, the considered reforms could be complemented by additional measures, e.g, higher eligibility thresholds for means-tested benefits to safeguard the most vulnerable groups, linking the recurrent tax on immovable property to family characteristics to increase the progressivity of the tax or regularly updating property values (European Commission, 2012). These areas fall outside the scope of this economic brief.

Graph 6: **Labour supply effects across scenarios**



Source: European Commission, Joint Research Centre, based on the EUROMOD model.

Combining the EUROMOD model with a micro-econometric labour supply model allows simulating the potential impact on labour supply[16]. Despite different approaches to reduce the tax burden on labour, Scenarios 1, 2 and 3 result in a similar increase in labour market participation by roughly 0.2% (see Graph 6). Scenario 4 shows a somewhat

smaller increase by 0.1%. As the individuals working less than 25 hours a week would lose the general allowance in Scenario 4, they would be the worst off compared to other reform scenarios. This could discourage them from participating in the labour market if they were constrained in increasing their working hours, i.e. due to a parallel care of a dependent person or employers' reluctance to change working contracts.

Scenario 1 reveals the strongest increase in full-time equivalent hours (by 0.7%), primarily driven by a significant shift to overtime work (4%). This could be (partly) explained by the fact that, by construction, this reform benefits the highest-income earners the most and many of them already work full-time[17]. Scenarios 2 and 3 would lead to a smaller increase in full-time equivalent hours, driven by a shift from short part-time work. As Scenario 2 would lower the incentives to earn annual income above the eligibility threshold for the in-work tax credit, overtime work would also decrease by 0.9%. All three scenarios show higher labour supply elasticities for women than for men. This means that, as a reaction to reduced labour taxes, women would increase their labour supply more strongly than men.

In Scenario 4, the total number of full-time equivalent hours would drop by 1.1%. As in Scenario 2, the main impact is through overtime work. Recall that, by construction, the in-work tax credit would be granted only to individuals with income below EUR 21,720 per year and that the in-work tax credit is more than four times as high as in Scenario 2. Therefore, working overtime and earning an income above the eligibility threshold would become even less attractive than in Scenario 2, leading to a significant reduction in overtime work by 12.1%. This could be (partly) compensated by adjusting the threshold for working hours a week or linking the eligibility for the in-work tax credit to the family situation of the worker, i.e. number of children, or the number of working hours.

Discussion and conclusions

In this economic brief, we consider shifting taxes away from labour in Slovenia using the European Commission EUROMOD and QUEST models. Our starting point is the shift from PIT to CIT, similar to the one proposed by Slovenia's Ministry of Finance. To identify potential trade-offs and synergies, we compare this with a shift to recurrent property tax, whose revenues are currently relatively low in Slovenia. In a second step, we examine whether there are more equitable ways to reduce the tax burden on labour.

In the simulations, we keep the fiscal impact (broadly) neutral and focus on the structural impact of the reform. We show that a revenue-neutral shift from PIT to CIT of a magnitude of 0.25% of GDP would reduce real GDP growth by around 0.3% in the long term, caused by a strong decrease in investment and labour productivity.

We also simulate a shift from PIT to recurrent tax on immovable property. The latter is considered less harmful for growth. We find that a comparable shift from PIT to recurrent property tax would have a negative long-term effect on growth of around 0.1% of GDP, mainly due to lower housing investment. Thus, our results confirm that in the case of Slovenia, higher CIT would be more detrimental to growth, investment and labour productivity than a higher recurrent tax on immovable property. We also show that higher recurrent property tax could help to slow down house price increases.

We then study the distributional and labour supply effects of the reforms. Micro-based EUROMOD simulations show that Slovenia's PIT reform would mostly benefit the highest-income earners. As a result, inequality would further increase and the tax system would become less progressive. We therefore examine the distributional impact of three alternative scenarios aimed at reducing the tax burden on labour by the same amount. First, we introduce a refundable in-work tax credit for low- and middle-income earners. Second, we cut the employee's SSC rate on pensions and disability from 15.5% to 14.3%. Third, we transform the general tax allowance into a refundable in-work tax credit for low- and middle-income earners. All changes in labour taxes are fully compensated by an increase in the recurrent property tax. All three alternative scenarios show better outcomes in terms of redistributive effects, inequality and tax progressivity. In particular, our analysis shows that transforming the general allowance into a refundable in-work tax credit targeted at low- and middle-income earners would lead to the highest increase in income equality at an aggregate level.

As none of the considered reforms would benefit the lowest-income deciles the most, all of them should be accompanied by measures to strengthen the social

support system. However, this goes beyond the scope of our analysis.

In all scenarios, the labour market participation would increase between 0.1% and 0.2%. We find that the cuts in PIT proposed by the government would lead to the strongest increase in working hours. Transforming the general allowance into a refundable in-work tax credit for low- and middle-income earners would, by contrast, weaken the incentives to work longer hours. This could be addressed by altering the eligibility criteria for the in-work tax credit.

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[1] This economic brief is based on the Ministry of Finance proposal of June 2019. Changes introduced thereafter by the law are not taken into account. These changes include, i.e., decreasing the tax rate for the third tax bracket by 1 pp (not 2 pps), lowering the threshold for the highest tax bracket and leaving the CIT rate at 19% (instead of increasing it to 20%). See also endnote 6.

[2] In Slovenia, the labour tax wedge for a single person at 100% of the average wage was at 43.6% in 2019, compared to the EU average of 39.9%. For low-income earners, the labour tax wedge for a single person at 50% of the average wage was at 37.0% in 2019, significantly above the EU average of 31.5%. For secondary earners at 3.3% of the average wage (spouse at 100% of the average wage), the tax wedge stood at 35.5% in 2019, compared to the EU average of 30.8%. https://europa.eu/economy_finance/db_indicators/tab/#. The tax wedge is defined as the sum of personal income taxes and employee and employer social security contributions net of family allowances, expressed as a percentage of total labour costs (the sum of the gross wage and social security contributions paid by the employer).

[3] The Constitutional Court has annulled the real estate tax enforced on 1 January 2014 as the real property mass valuation act was not in accordance with the Constitution. The tax was supposed to replace the existing property tax and the charge for the use of building land. Since then, the introduction of a new real estate tax has been postponed for several times and withdrawn by the current government.

[4] QUEST is a global macroeconomic model used for macroeconomic policy analysis and research. It is a structural macro-model in the New-Keynesian tradition with rigorous microeconomic foundations derived from utility and profit optimisation and including frictions in goods, labour and financial markets (European Commission, 2008).

[5] EUROMOD is the static tax-benefit microsimulation model for the EU. It simulates individuals' and households' benefit entitlements and tax liabilities (including SSC) according to the applicable rules in each Member State. For this economic brief, EUROMOD used the 2016 vintage of the EU Statistics on Income and Living Conditions survey as input data (Kump et al., 2018).

[6] According to the proposal, the income below EUR 8,500 is taxed at 16%; the income between EUR 8,500 and EUR 25,000 at 26%, the income between EUR 25,000 and EUR 50,000 at 32%; the income between EUR 50,000 and EUR 80,000 at 39%; and the income above EUR 80,000 at 50%. The actual reform brought the tax rate in the third bracket to 33% and lowered the threshold for the highest tax bracket to EUR 72,000.

[7] The general allowance reduces the taxable base for PIT, depending on individual's annual income. It is non-refundable and can only reduce the tax liability to zero.

[8] The discrepancy between the EUROMOD and the Ministry of Finance estimates of the net revenue loss from the proposed changes in PIT could be due to the underrepresentation of the top income decile in the EUROMOD input data.

[9] Unless stated otherwise, the real GDP definition includes imputed rents.

[10] Equivalised household disposable income corresponds to total household net income adjusted by the household composition, using the OECD scale (weighting system: 1 to the household head, 0.5 to other adults, 0.3 to children younger than 14 year-old).

[11] In EUROMOD, the magnitude of the reform is defined by multiplying the tax liabilities on immovable property by 1.7 which amounts to EUR 120.4m (around 0.2% of GDP). The difference to the proposal by the Ministry of Finance (EUR 119.6m) stems from rounding and is not significant.

[12] The refundable in-work tax credit is designed in the following way: (i) phasing-in at a rate of 20% of annual income for workers with annual income below EUR 1,150; (ii) fixed amount of EUR 230 for workers with annual income between EUR 1,150 and EUR 17,750; (iii) phasing-out at a rate of 20% of annual income for workers with annual income between EUR 17,750 and EUR 18,903; (iv) EUR 0 for workers with higher annual income. The in-work tax credit is refunded irrespective of the tax liability.

[13] People in active employment are defined as those aged 16 or older working 25 or more hours a week. The threshold for working 25 hours a week was set arbitrarily to limit the eligibility of people working only few hours a week on an irregular basis.

[14] According to the OECD, countries with higher mandatory pension contribution rates might face lower employment and higher informality (OECD, 2017).

[15] The refundable in-work tax credit is designed in the following way: (i) phasing-in at a rate of 20% of annual income for workers with annual income below EUR 4,800; (ii) fixed amount of EUR 960 for workers with annual income between EUR 4,800 and EUR 16,920; (iii) phasing-out at a rate of 20% of annual income for workers with annual income between EUR 16,920 and EUR 21,720; (iv) EUR 0 for workers with higher annual income. The in-work tax credit is refunded irrespective of the tax liability.

[16] The discrete choice labour supply model closely follows Bargain et al. (2014), where individuals face a decision on the set of working hours alternatives, including the possibility of supplying zero hours in the labour market.

[17] Short part-time corresponds to 1-15 hours per week, long part-time to 16-32 hours per week, full-time to 33-42 hours per week and 43-60 hours per week are considered as overtime.

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